

# Interoperability Product Documentation

**NOTE:** Some links in this PDF file may access content on the Customer Exchange (CX) website. To view the content, you must log in with your CX account credentials.

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# Using the Developer Portal

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The **Interoperability Developer Portal** is the platform that third-party and payer developers can use to develop and test their FHIR-based health care applications under contract with Cognizant clients.

This section provides details for accessing and using the Developer Portal user interface.

## Support for OAuth 2.0

The Developer Portal supports oAuth2 protocol. OAuth 2.0 is the industry-standard protocol for authorization. OAuth 2.0 focuses on client developer simplicity while providing specific authorization flows for web applications, desktop applications, mobile phones, and living room devices.

The Client-provided Identity Provider (IDP) authorization service should support OpenID Connect (OIDC). OIDC is a thin layer that sits on top of OAuth 2.0 that adds login and profile information about the person who is logged in.

# Start Here

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## Welcome to the API Developer Portal!

Here you can learn the capabilities of the Developer Portal and our FHIR APIs, and get started on building FHIR-based applications.

## Two Types of Developers

### Which type of developer am I?

- If you are a **third-party developer**, you are working on a FHIR-based health care application under contract from a health plan company.
- If you are a **payer developer**, you are working for a health plan company creating FHIR-based payer-to-payer applications, which are used to transfer health plan data from one payer to another.

## FAQs for Developers

**What can I do without an account?** With no account, you can read Home page content, read about API endpoints, and follow footer links. More importantly, you can explore APIs and try Provider Directory API calls against mock data in the API Sandbox without being logged in.

**What's the API Sandbox?** The API Sandbox is a canned collection of desensitized, non-PHI test data which API endpoints can access for test purposes.

**What can I do when logged in?** After signing up for a developer account and logging in, you can view and test Patient Access or Payer-to-Payer APIs against mock data. You can also register your Patient Access application. Payer developers can register their payer-to-payer applications. More importantly, you can download a "swagger" file to get a start on building applications.

**Do I have to sign up?** No, you don't have to sign up to try the Provider Directory APIs. But you need to sign up to work with Patient Access or Payer-to-Payer APIs, view reports and manage your account.

## Launching the Developer Portal

*To launch the Developer Portal:*

1. Launch the Developer Portal using the URL specific for your health plan. The Home page of the Developer Portal appears.
2. Scroll down the page to read about the APIs and profiles supported by your health plan.
3. From here you can:
  - a. [View the available API endpoints.](#)
  - b. [Sign up for a developer account.](#)
  - c. [Sign in](#) once you have an account.

4. To see a complete list of steps on how to use the Developer Portal, see the [Quick Start Guide](#).

## Supported Browsers

**Table 1. Supported Browsers**

Browser	Supported
Apple Safari	Yes <sup>1</sup>
Google Chrome	Yes <sup>1</sup>
Microsoft Edge	Yes <sup>1</sup>
Microsoft Internet Explorer	No
Mozilla Firefox	Yes <sup>1</sup>

<sup>1</sup> Supported in the two latest production versions.

The Developer Portal is available from any operating system.

## API Sandbox Testing Information and Dataset

See [API Sandbox Test Data](#).

# API Sandbox Test Data

Sandbox test data is available and the same for all tenants and clients. This is the out-of-box “sandbox” test data.

## Data Hub

Type	Entity	Get Statement
Allergy intol Patient	Atp07	/AllergyIntolerance?patient=Ptp07
CarePlan Patient	Cpp07	/CarePlan?patient=Ptp07
CareTeam Patient	Ctp07	/CareTeam?patient=Ptp07&status=active
Claim Patient	Clmp07	/Claim?patient=Ptp07
Condition Patient	Conp07	/Condition?patient=Ptp07&category=[system][code]
Coverage Patient	Covp07	/Coverage?patient=Ptp07
Device Patient	Devp07	/Device?patient=Ptp07
DiagnosticReport Patient	Drepp07	/DiagnosticReport?patient=Ptp07
DocumentReference Patient	Docrefp07	/DocumentReference/Docrefp07
Encounter /Id	Encp07	/Encounter?_id=Encp07
End Point	Epp07	/Endpoint?identifier=http://terminology.hl7.org/CodeSystem/v2-0203 TAX
EOB Patient	Eobp07	/ExplanationOfBenefit?patient=Ptp07
Goal Patient	Goalp07	/Goal?patient=Ptp07
Immunization Patient	Immp07	/Immunization?patient=Ptp07
List	Listp07	List?identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier Listp07
Location identifier	Locp07	/Location?name=Locname01&_profile=http://hl7.org/fhir/us/core/StructureDefinition/us-core-location
Medication identifier	Medp07	/Medication?code=http://www.nlm.nih.gov/research/umls/rxnorm 103086
MedicationDispense	Mdp07	/MedicationDispense?patient=Ptp07&status=completed

MedicationKnowledge	Mkp07	/MedicationKnowledge?code=http://www.nlm.nih.gov/research/umls/rxnorm Mkp07
Medication Request Patient	Mrp07	/MedicationRequest?patient=Ptp07&intent=order&status=active code
Observation Patient	Obsp07	[base]/Observation?patient=Ptp07&code=http://loinc.org 2075-0
Organization identifier	Orgp07 p2ptestdata20	/Organization/Orgp07 /Organization/p2ptestdata20
PatientID	Ptp07 313131	/Patient/Ptp07 /Patient/313131 ( <i>payer to payer</i> )
PracRole identifier	Pracrolep07 PracRoleLoadNew11508	/PractitionerRole?specialty=http://snomed.info/sct 9632001 <i>(payer to payer)</i>
PractitionerID	Pracp03 Pracp07	/Practitioner/Pracp03 /Practitioner/Pracp07 ( <i>payer to payer</i> )
Procedure Patient	Procp07	/Procedure?patient=Ptp07
RelatedPerson	Rpp07	/RelatedPerson?patient=Ptp07

## FHIR Adapter

/Patient/158601
/Patient?identifier=FACETS:tenant4 158601
/Claim/HSD000162900
/Claim?identifier=FACETS:tenant4%7CHSD000162900
/Claim?patient=158601&status=active
/Claim?patient=158601
/Practitioner/IHMPRAC00005
/Practitioner?identifier= <a href="http://hl7.org/fhir/sid/us-npi%7C0012016603">http://hl7.org/fhir/sid/us-npi%7C0012016603</a>
/PractitionerRole?practitioner=IHMPRAC00005
/HealthcareService?identifier=FACETS:tenant4%7C500171717001

/ExplanationOfBenefit/04162BM00003
/ExplanationOfBenefit?identifier=FACETS:tenant4%7C04162BM00003
/ExplanationOfBenefit?patient=158601
/ExplanationOfBenefit?patient=158601&status=active
/Location?provider=IHMPRAC00005
/Location?provider=IHMPRAC00005&_profile= <a href="http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Location">http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Location</a>
/Location?identifier=FACETS:tenant4%7CIHMRAC00005
/Location?identifier=FACETS:tenant4%7CIHMPRAC00005&_profile= <a href="http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Location">http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Location</a>
/Organization/500101010
/Organization?name=Medical%20Practice%20Associates
/Organization/10040410
/Organization?name=Wyoming%20Department%20of%20Health
/Organization?name=Wyoming%20Department%20of%20Health&_profile= <a href="http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-organization">http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-organization</a>
/Organization?name=FHFSA302
/Organization?name=FHFSA302&_profile= <a href="http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-organization">http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-organization</a>
/OrganizationAffiliation?identifier=383621801
/InsurancePlan?identifier=P2HR
/Endpoint/OrganizationAffiliation
/Endpoint?name=Practitioner

# Viewing API Endpoints


You can view API endpoints (or calls) whether you are signed in or not. You can access Provider Directory API endpoints against mock data without being signed in. However, you have to be signed in to try Patient Access and Payer-to-Payer endpoints. The APIs page lets a developer explore portal functionality, input parameters and output responses.

## Sign in to try an API call

You have to be signed in to try a Patient Access or Payer-to-Payer API call and receive valid data in return.

*To view API endpoints:*

1. Launch the Developer Portal as described in [Start Here](#).
2. On the Home page, click **Explore APIs**. You can also click the **APIs** top menu item.
3. The APIs page appears. Click the name of an API from the **Name** list.
4. The details page for the selected API appears. Here you can see the list of endpoints and all the in-page documentation for the selected endpoint.

 **NOTE:** You must be signed in to use the **Try It** button for Patient Access or Payer-to-Payer endpoints.

5. Try grouping the APIs by tag by selecting the **Group By Tag** button. The list updates to show endpoints listed by tag category.

From here you can try calling an endpoint using the **Try It** feature.



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# Signing up for Developers

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Signing up for a Developer account is covered in User Account Management. Click the corresponding link on the Help page.

# Trying an API Call

The Developer Portal provides a feature where you can try out API endpoints without having to use Postman or SoapUI to make the request. This section describes the "Try It" feature.

**i** By default, you can try Provider Directory and Payer-to-Payer API calls against mock data without being logged in, but you must be logged in to try Patient Access API calls. You get access to these APIs based on your user role. Tenant administrators can configure a difference access scheme.

*To use the "Try It" feature to call an API endpoint:*

1. Navigate to the API Details page for an API.
2. Click an endpoint in the left column of the screen, view the input parameters, then click **Try It**.
3. The **Try It** panel pops out from the right. Fill in required input and header parameters. Select the necessary parameters from the dropdown. Sample data is provided [in API Sandbox Test Data](#).
4. In the **Authorization** dropdown, select the **Authorization Code** option. This populates your token.
5. Scroll to the bottom of the **Try It** panel and click **Send**.
6. The HTTP response appears. Look for the return code; the "200 OK" means the request was successful.

**i** The examples discussed here may differ from the sandbox environment for your system.

# Downloading a Swagger File

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This topic details accessing and using the Developer Portal in an authenticated (gated) flow.

## Downloading a "Swagger" File to Start Development

To get started with development, you can download an OpenAPI ([Swagger](#)) file for an API.

1. From the APIs page, click on an API.
2. Choose a download format from the **API Definition** list that fits your development model.
3. Check your Downloads folder for the file, or locate the file on your system. From there you can open the file in an application or in your IDE to start development.

## Example Patient Read Response

Example

```
{
  "resourceType": "Patient",
  "meta": {
    "profile": [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient"
    ]
  },
  "extension": [{
    "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-birthsex",
    "valueCode": "male"
  }],
  "identifier": [{
    "use": "official",
    "type": {
      "coding": [{
        "system": "http://terminology.tzfInterOp.com/CodeSystem/ValueSet/InterOp/INTMEMID",
        "version": "v001.001",
        "code": "INTMEMID",
        "display": "Member Internal ID",
        "userSelected": true
      }
    ]
  }
}
```

```
    }],
    "text": "Member Internal ID"
  },
  "system": "FACETS:tenant4",
  "value": "158601",
  "assigner": {
    "display": "FACETS:tenant4"
  }
},
{
  "use": "official",
  "type": {
    "coding": [{
      "system": "http://terminology.tzflInterOp.com/CodeSystem/ValueSet/InterOp/MEMID",
      "version": "v001.001",
      "code": "MEMID",
      "display": "MemberId",
      "userSelected": true
    }],
    "text": "MemberId"
  },
  "system": "FACETS:tenant4",
  "value": "CORE-00",
  "assigner": {
    "display": "FACETS:tenant4"
  }
}
},
{
  "use": "official",
  "type": {
    "coding": [{
      "system": "http://terminology.tzflInterOp.com/CodeSystem/ValueSet/InterOp/SUBID",
      "version": "v001.001",
      "code": "SUBID",
      "display": "HeadOfHouse/SubscriberId",
      "userSelected": true
    }],
    "text": "HeadOfHouse/SubscriberId"
  },
  "system": "FACETS:tenant4",
  "value": "CORE",
  "assigner": {
    "display": "FACETS:tenant4"
  }
}
}],
"name": {
  "use": "official",
  "text": "SBSB CORE",
  "family": "CORE",
  "given": [
    "SBSB"
```

```
]
}],
"gender": "male",
"birthDate": "1950-01-01T00:00:00.0000000+00:00",
"address": [{
  "use": "home",
  "type": "both",
  "text": "SBSB ADDR1, SBSB ADDR2, SBSB ADDR3, Union, NJ, 07083",
  "line": [
    "SBSB ADDR1",
    "SBSB ADDR2",
    "SBSB ADDR3"
  ],
  "city": "Union",
  "district": "Union",
  "state": "NJ",
  "postalCode": "07083"
},
{
  "use": "work",
  "type": "both",
  "text": "SBSB ADDR1, SBSB ADDR2, SBSB ADDR3, Union, NJ, 07083",
  "line": [
    "SBSB ADDR1",
    "SBSB ADDR2",
    "SBSB ADDR3"
  ],
  "city": "Union",
  "district": "Union",
  "state": "NJ",
  "postalCode": "07083"
}
],
"maritalStatus": {
  "coding": [{
    "system": "http://terminology.tzflInterOp.com/CodeSystem/ValueSet/InterOp/MaritalStatus",
    "version": "v001.001",
    "code": "Unreported",
    "userSelected": true
  }],
  "text": "UNREPORTED"
}
}
```

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Legal Information:

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# Accessing Reports

The Reports page provides various types of visual presentations on API usage for the signed-in developer.

## Report Limitations

- Only API Sandbox requests are tracked.
- Postman requests are not counted.

**Table 1. Breakdown of Reports**

Report Section	Description
API Calls	Provides a graph of Total, Successful, Failed and Blocked requests for the period of time selected by the buttons.
Data transfer	Shows a graph of the bandwidth usage over a selected period of time.
API response times	Shows a graph of response times comparing minimum, maximum and average times in milliseconds.
APIs	Shows statistics on the number of successful, blocked, failed, other and total calls by API. Also shows average response time in milliseconds and bandwidth used in bytes.
Operations	Shows statistics on the number of successful, blocked, failed, other and total calls by individual operation. Also shows average response time in milliseconds and bandwidth used in bytes.

*To access reports:*

1. Click the **Reports** top menu item. The Reports screen appears. It displays a row of buttons that let you filter the graph data. Last Hour, Today, Last 7 days, Last 30 days and Last 90 days are the filters, Last 7 days being the default.
2. Scroll down to see the graphs for API calls, Data transfer, and API response times.
3. Scroll farther down to see the tables showing the call statistics for APIs and Operations. You'll see statistics on successful calls, blocked calls, failed calls, average response time and bandwidth.
4. Pick a report timeframe. Choices are:
  - LAST HOUR
  - TODAY
  - LAST 7 DAYS (default)
  - LAST 30 DAYS
  - LAST 90 DAYS

5. Click on column heading links to sort the table.



# Viewing Your User Profile

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All the specifics of your Developer Portal account are listed on the Profile page. Here you can see account details, and manage various aspects of your profile.


## Getting to Your Profile

*To get to your profile:*

1. Once signed in, click **Profile** in the top menu.
2. The Profile page appears.
3. Scroll down to see the rest of the page and its Account Details section.

## Account Details

The Account Details section of the User Profile page shows the email address and full name used to create the account.

 For clients who are using the Out of Box Identity Provider (IDP), see the Account Management page for details on how to change your account details.

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# Account Management

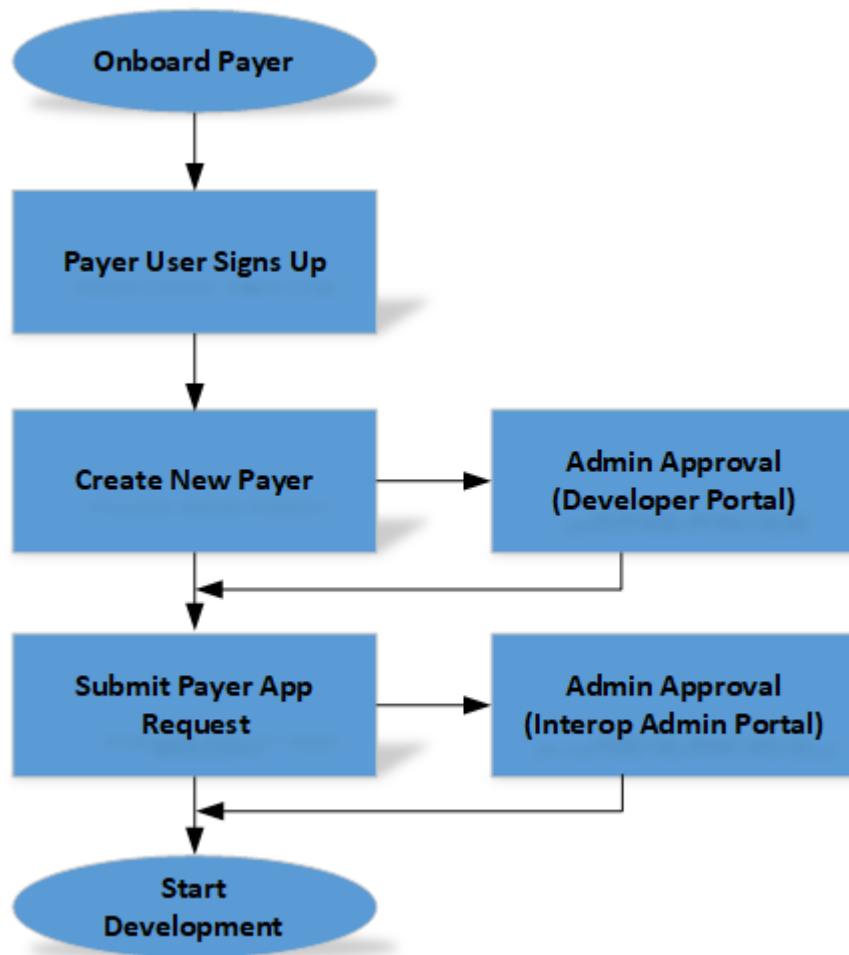
---

The operations you can perform for developer account management are described in User Account Management. Click the corresponding link on the Help page.

# Working with Payers

Payer-to-payer applications enable healthcare companies (payers) to exchange member data with other payers for when members change health plans due to job change or change in coverage. Figure 1 shows the process of developing payer-to-payer applications - from onboarding a payer user to submitting the payer application.

Figure 1. Payer-to-Payer Flow



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# Launching the Payer Registration Dashboard

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The Payer Registration Dashboard is where existing payers are viewed and new payers are onboarded. To see the link to the Dashboard, you must have a Developer Portal user account in the payer role.

*To launch the Payer Registration Dashboard*

1. Launch the Developer Portal.
2. Click **Sign In** with your payer user account. The Home page appears.
3. On the Home page, click the **Payer Registration** button in the top menu. The Payer Registration page appears. Here you see a **Search and View Registered Payer** dropdown, a **NEW PAYER REGISTRATION** button, and a **Payer Details** list.

From here, you can

- View existing payers in the Payer Details list
- Register a new payer application (for details, see [Registering a New Payer Application through the Developer Portal](#)).

# Managing Payers

Administrators manage payer registrations via the Payer Registration dashboard in the Developer Portal. Through the dashboard, administrators can approve or deny payer registrations, and register new payers.

This page covers how to view and manage existing registered payers. To see how to register a new payer, see [Registering a New Payer through the Developer Portal](#).

## About the Payer Details List

By default, **Payer Details** lists in tabular form all submitted, denied and approved payers. Key data elements are the payer name, status, organization ID and associated users.

The Payer Details list contains the following columns:

Column	Description
Payer Name	The name of the registered payer.
Payer TIN	The payer's tax ID number (TIN).
Address	The payer's address information.
Contacts	The payer's contact information..
Status	The status of the submitted payer registration. Can be: <ul style="list-style-type: none"><li>• Submitted</li><li>• Approved</li><li>• Denied.</li></ul>
Organization ID	If the app is approved, the Organization resource ID for this payer.
Action	Actions that can be performed for this payer registration. Actions can be: <ul style="list-style-type: none"><li>• Assign Self: Take ownership of pending payer registration.</li><li>• Edit: Edit the address and contact information for an approved payer.</li></ul>
Requested By	The payer user registering the payer.
Assignee	Administrator who is evaluating the payer.
Associated Users	Users associated with this payer when registering.

# Viewing a Registered Payer

The Payer Registration dashboard lets you view one registered payer at a time.

*To view a specific registered payer*

1. Navigate to the **Payer Registration** page as described in [Launching the Payer Registration Dashboard](#).
2. In the **Search and View Registered Payer** dropdown, select a registered payer. The selected payer appears in the Payer Details list below the dropdown.
3. View the information for the payer. The columns are described in [About the Payer Details List](#).
4. If the **STATUS** column contains **Denied**, you can click the **Denied** link to view the reason for the denial in the **Denied Reason** popup.

# Editing a Payer

Payer users can edit payers that have submitted their registration or have already been approved.

*To edit a registered payer:*

1. Sign in to the Developer Portal as a payer user.
2. In the top navigation menu, click **Payer Registration**. The Payer Registration page appears.
3. If selecting an **APPROVED** payer from the **Search and View Registered Payer** dropdown, do the following:
  - a. In the **Payer Details** list, click **Assign Self** in the **Action** column. The **Assign Self** link turns into an **Edit** link.
  - b. Click **Edit**. The Payer Registration page appears with the selected payer's information populating the fields.
4. If looking for a payer in the **SUBMITTED** state, do the following:
  - a. In the **Payer Details** list, click **Edit** in the **Action** column. The Payer Registration page appears with the selected payer's information populating the fields.
5. Edit any of the fields and click **SUBMIT**.

The updated information appears in the **Payer Details** list.

# Registering a New Payer through the Developer Portal

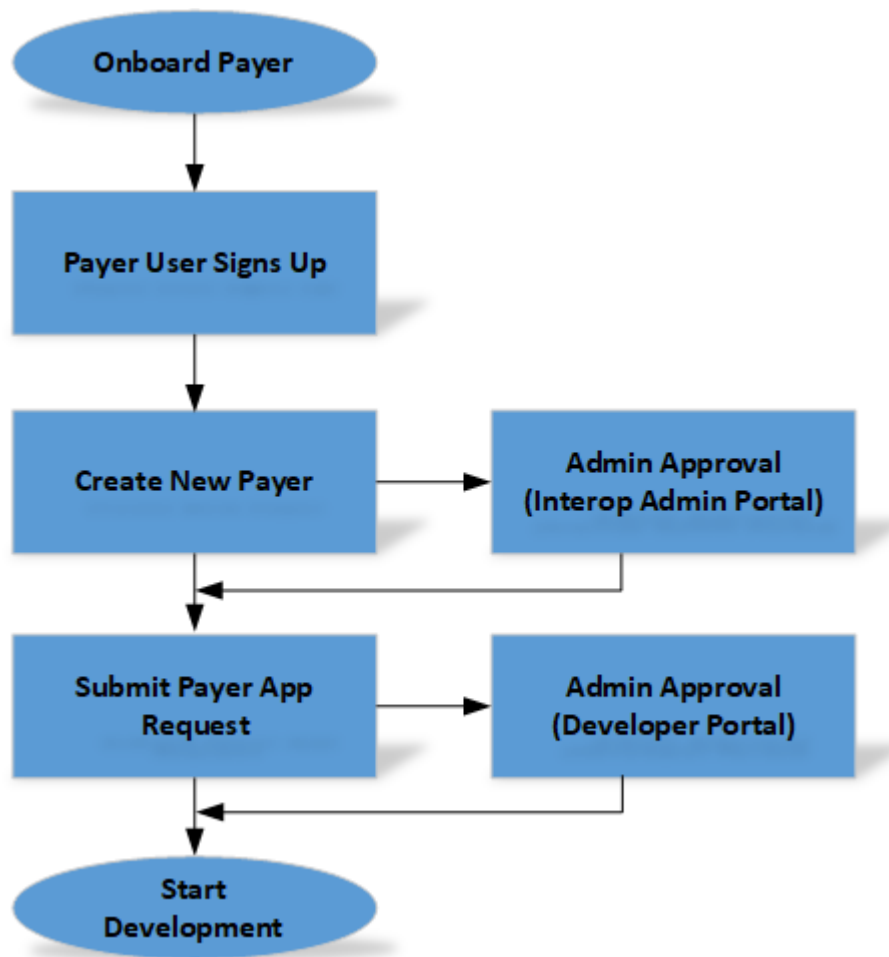
A payer is a healthcare company that offers health insurance coverage to members. In the context of the Developer Portal, payers work to develop payer-to-payer applications that share member data with other health plan payers.

Once registered, a payer can be selected in the payer application flow and is associated with that application.

## Payer Registration Flow

The payer registration flow can be configured to meet the needs of health plans that wish to approve or deny payer registration requests manually. See Figure 1.

Figure 1. Payer Registration Flow



If approved, the payer can submit requests for payer-to-payer applications.

# Preparing to Register a Payer

Before attempting to register a payer, a payer user must be registered as described in [User Account Management](#). To register a payer, it's beneficial to gather your registration information and settings ahead of time. Here is a mini-checklist to guide you:

**Table 1. Checklist for Preparing to Register an Application**

Category	Description
Payer Name	The full name of the healthcare payer company.
Payer TIN	The payer's tax ID number.
Address Details	The address of the payer - address, city, state, ZIP code.
Contact Details	The contact information for the payer - telephone number, FAX number, website URL.

You can now start the registration process as described in [Registering a Payer](#) below.

## Registering a Payer

*To register a payer:*

1. Prepare for registering a payer as described in [Preparing to Register a Payer](#).
2. Sign in to the Developer Portal as a payer user.
3. In the top navigation menu, click **Payer Registration**. The Payer Registration page appears.
4. Click the **NEW PAYER REGISTRATION** button.
5. Fill in the address details section.
6. Fill in the contact details section.
7. Click the **SUBMIT** button.

Health plan administrators then reviews the request and either approve or deny it in the Interoperability Administration portal. The payer user receives an email either way.

If approved, the payer user receives their organization ID, which needs to be supplied in member-match operations for payer-to-payer applications developed either by a payer developer or by a third-party developer who is registering on behalf of a payer.

Once approved, payer users can now register payer-to-payer applications.



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# Working with Applications

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Third-party and payer-to-payer developers start here to register and manage their smartphone and data transfer applications, from submission through approval.

- [Managing Apps with the App Registration Dashboard](#)
- [Registering a Third-Party Application through the Developer Portal](#)
- [Registering a Payer Application through the Developer Portal](#)
- [Manual Queries for Application Reports](#)

# Managing Apps with the App Registration Dashboard

Initially submitting **third-party** and **payer-to-payer** applications for approval is just one part of app registration. Once that is done, developers can manage the apps that they've submitted from inside the Developer Portal. The **App Registration Dashboard** lets you view a list of apps you've submitted, their status, and for those that have been approved, it shows the app's primary and secondary Client Secrets.

## Launching the App Registration Dashboard

These steps assume you have a Developer Portal user account based on either a third-party developer role or a payer role.

### To launch the App Registration Dashboard:

1. Launch the Developer Portal.
2. Click **Sign Up** in the top menu to create yourself a developer account if you don't already have one.
3. Click **Sign In** to access your account in the Developer Portal. The Home page appears.
4. On the Home page, click the **App Registration** button in the top menu. The App Registration page appears. Here you see a **Filter** section and a complete **List of Registered Applications**.

From here, you can

- Filter the List of Registered Applications for a particular app
- Generate a new client secret
- Register a new application (for details, see [Registering a Third-Party Application through the Developer Portal](#)).

## Filtering the List of Applications

You may need to narrow the list of applications to make it easier to find the ones you want. The fields you can filter on are:

Field Name	Description
Application Name	Filter by name. Matches full or partial text found in the <b>App Name</b> column of the List of Registered Applications.
Application Status	Filter by registration status. Matches full or partial text found in the <b>Status</b> column in the List of Registered Applications.

### To filter the list of applications:

1. On the App Registration page, locate the Filter panel.
2. Enter a text string into either the **Application Name** or **Application Status** field or both.

3. Click the **Filter** (magnifying glass) button.
4. The **List of Registered Applications** is updated to match the filter criteria.

**To reset the filter fields and List of Registered Applications:**

1. On the App Registration page, click the **RESET** button. The Application Name and Application Status fields are cleared and the List of Registered Applications now displays all apps.

## Using the List of Registered Applications

By default, the List of Registered Applications lists in tabular form all your submitted and approved applications. Key data elements are the App ID, Status and Client Secrets. You can also page through the list of applications. To register a new application, see [Registering a Third-Party Application through the Developer Portal](#).

The List of Registered Applications contains the following columns:

Column	Description
App ID	The application ID used to identify the app.
Environment	The environment in which the app operates. Can be <b>Sandbox</b> or <b>Production</b> .
App Name	The name of the app.
Description	A blurb about the app.
Requested Date and Time	The date and time the app was submitted.
Status	The status of the submitted app. Can be: <ul style="list-style-type: none"> <li>• Submitted</li> <li>• Approved</li> <li>• Pending</li> <li>• Revoked</li> </ul>
Client Secret1	If the app is approved, the primary client secret can be regenerated. Maybe it has expired or it's time to rotate them.
Client Secret2	If the app is approved, the secondary client secret can be regenerated. Maybe it has expired or it's time to rotate them.
Payer Name / Org Profile	For payer apps only. The name of the payer associated with the application and Organization profile for it.

By filtering the list, you can view a subset of your applications.

# Generating a Client Secret

Approved applications are given two client secrets: Client Secret 1 and Client Secret 2. The initial values are generated when the app registration is approved. But the developer can regenerate their own client secrets when needed.

## To generate a new Client Secret

1. In the List of Registered Applications, find an approved app.
2. In the Client Secret 1 or Client Secret 2 column, decide which client secret to generate and click its **Generate** button.
3. A popup appears for the selected Client Secret. Copy the secret and paste it into a file for safe keeping.
4. Click Close to dispatch the popup.

Developers can then paste the new Client Secret into their application for authentication purposes.

# Registering a Third-Party Application through the Developer Portal

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The Interoperability Developer Portal offers signed-in third-party developers a way to register a FHIR-based **Patient Access** or **Provider Directory** healthcare application (called **third-party applications**). These apps must be registered with and fully approved by the health plan before the application can access live data.

Applications can be registered in both **Sandbox** and **Production** environments. Typically you register for Sandbox first to obtain the Application ID and do the development, then you register for Production using the App ID from Sandbox.

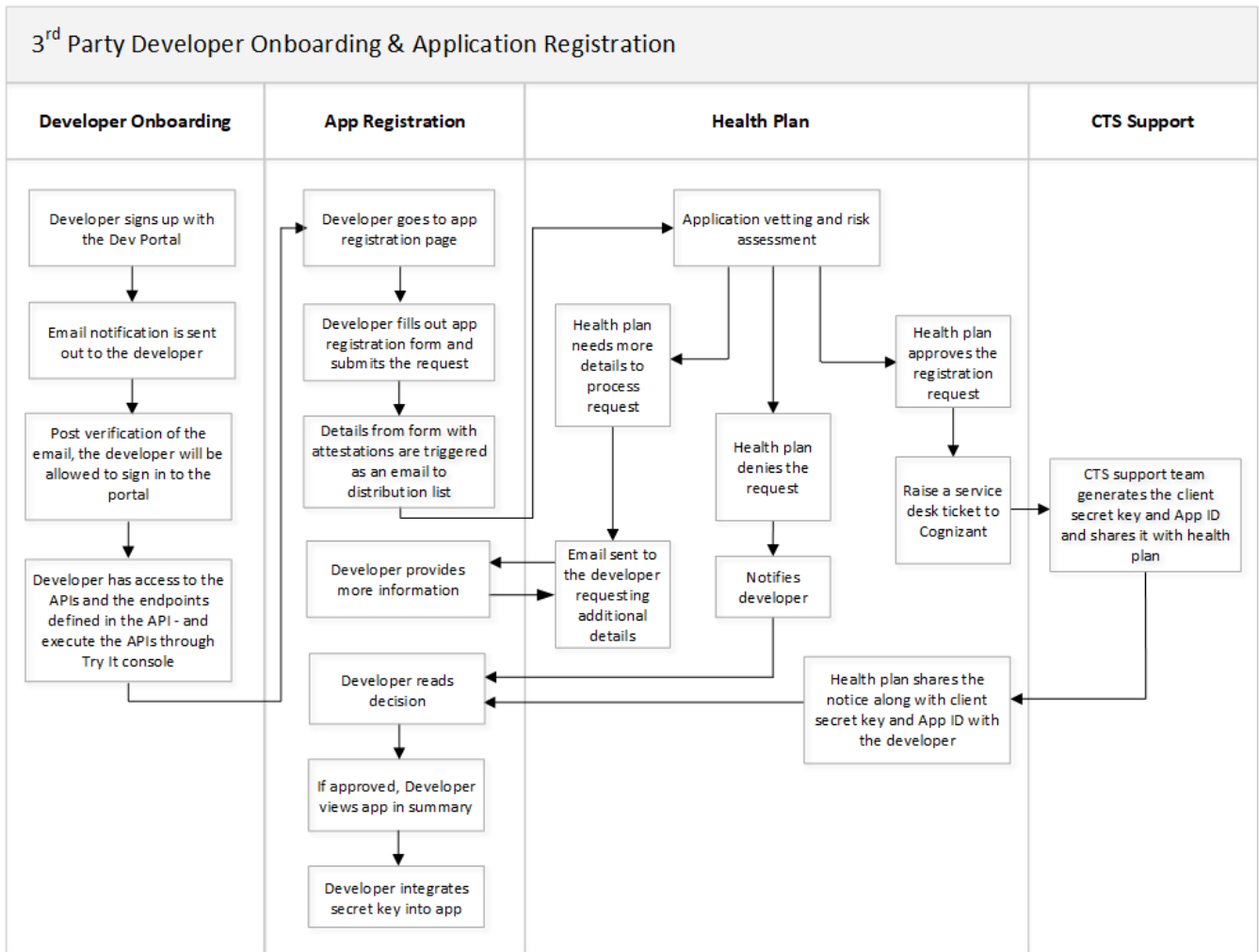
**i** Only **Patient Access** applications need to be registered. **Provider Directory** applications do not.

For details on registering **Payer-to-Payer** applications, see [Registering a Payer Application through the Developer Portal](#).

## Configurable Application Registration Flow

The registration flow can be configured to meet the needs of health plans that wish to approve or deny app registration requests manually. See Figure 1.

**Figure 1. Application Registration Flow**



If approved, the developer accesses the application's client ID and client secret on the Developer Portal. Then the application is ready to start accessing APIs.

## Preparing to Register a Third-Party Application

Before attempting to register a third-party application, it's beneficial to gather your registration information and settings ahead of time. Here is a mini-checklist to guide you:

**Table 1. Checklist for Preparing to Register an Application**

Category	Description
Application ID	The number identifying the application. This ID is auto-generated during Sandbox registration and applied during Production registration.
OAuth redirection	Call back URL and Redirect URI.
OAuth type	Public vs. Confidential. <b>Confidential</b> applications can keep the client ID and client secret secure. <b>Public</b> applications cannot secure the data.
APIs to be accessed	The only application type that needs to be registered is Patient Access applications.
IP address range	Range of IP addresses to whitelist.
Method of encryption	Encryption support – TLS 1.2 or above. If TLS 1.1 or lower encryption is planned, the application could be denied.
Organizational details	Key website and legal URLs, support contacts, escalation contacts, and developer contacts
Attestation	Attest compliance with the security and privacy policy choices listed on the registration form. These choices ensure the application provides its own privacy policy and terms of use statements. If the developer does not agree to any of the statements, the health plan will notify members to avoid this application and select one that is in compliance.

You can now start the registration process as described in [Registering an Application](#) below.

## Registering a Third-Party Application

*To register an application:*

1. Prepare for registering your application as described in [Preparing to Register an Application](#).
2. Sign in to the Developer Portal.
3. Fill in the application and organizational details as described in [Preparing to Register an Application](#).
4. On the Home page, click the **App Registration** button in the top menu.

5. The **Register New App** page appears. First off, select the **ENVIRONMENT FOR YOUR APP**. The **Sandbox** radio button is selected by default, because you must register the application in Sandbox before attempting a Production registration.

If you select **Sandbox**, you see fields for the **APP NAME** and **APP DESCRIPTION**. The API Sandbox is a canned collection of desensitized, non-PHI test data which API endpoints can access for test purposes.

But if you select **Production**, in addition to the **APP NAME** and **APP DESCRIPTION** fields, you see a text field for **TEST APP ID FOR YOUR APP**. This App ID (also known as client ID) is provided once the Sandbox registration is approved.

The remainder of the form is the same for either environment selection.

6. Fill in the application and organizational details as described in [Preparing to Register an Application](#).
7. Scroll further down and fill out the **ATTESTATION** section of the form. Be sure to check one or more of the Attestation checkboxes.
8. Click the **SUBMIT** button.

The health plan then reviews the request and either approves or denies it. You will receive an email either way.


If approved, you will receive the auto-generated App ID. You can go to the **Profile** page to see your application's information such as client ID and client secret. You can try testing a few APIs either in the **Try It** tool on the Developer Portal or through SoapUI or Postman. You can also download a swagger file to get going with development.



# Registering a Payer Application through the Developer Portal

The Interoperability Developer Portal offers signed-in users a way to register FHIR-based payer-to-payer applications using Payer Data Exchange. These apps must be registered with and fully approved by the associated health plan before the application can access live data.

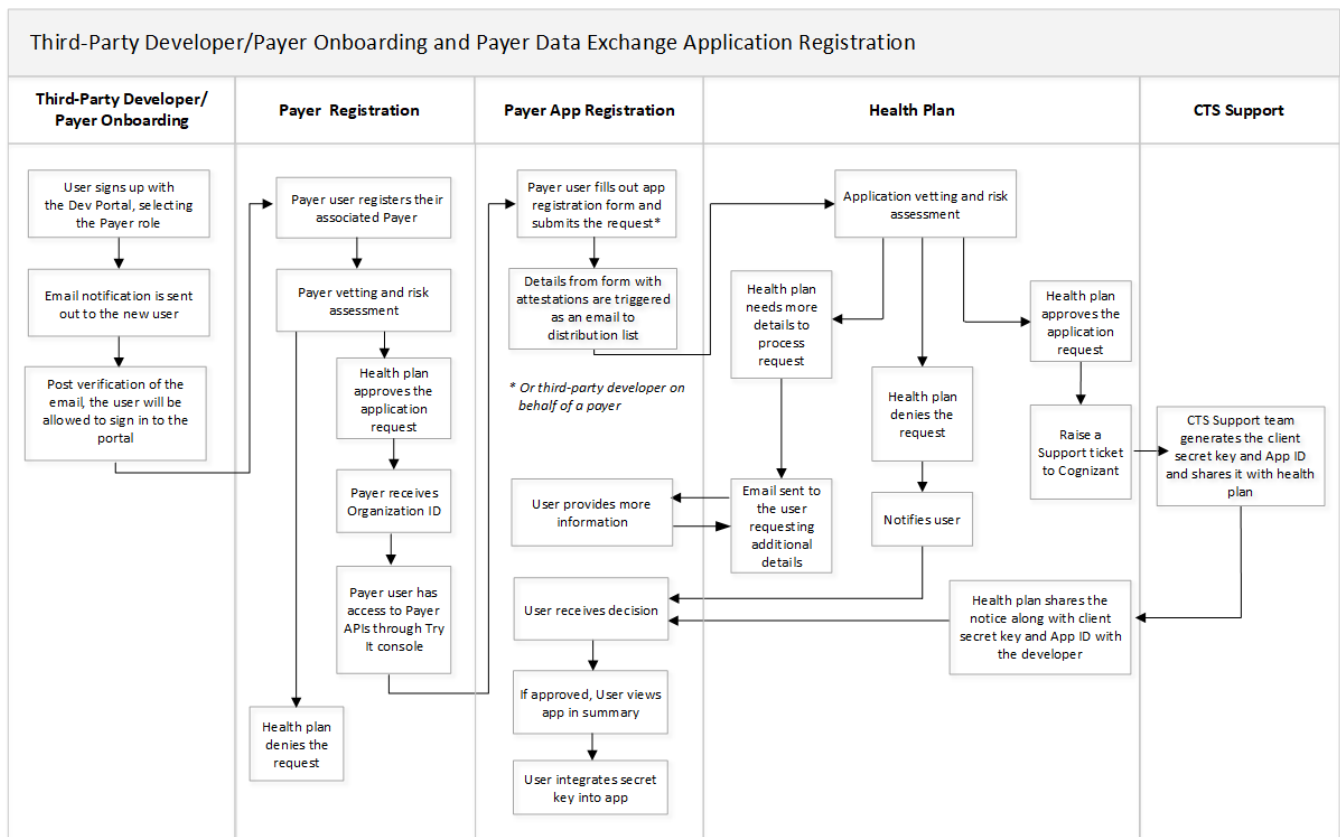
Applications can be registered in both Sandbox and Production environments. Typically you register for Sandbox first to obtain the Application ID and do the development, then you register for Production using the App ID from Sandbox.

 Patient Access and Payer-to-Payer applications need to be registered. Provider Directory applications do not.

## Configurable Application Registration Flow

The registration flow can be configured to meet the needs of health plans that wish to approve or deny app registration requests manually. See Figure 1.

**Figure 1. Application Registration Flow**



If the application is approved, the developer accesses the application’s client ID and client secret on the Developer Portal. Then the application is ready to start accessing APIs.

# Preparing to Register a Payer Application

Before attempting to register an application, it's beneficial to gather your registration information and settings ahead of time. Here is a mini-checklist to guide you:

**Table 1. Checklist for Preparing to Register an Application**

Category	Description
Application ID	The number identifying the application. This ID is auto-generated during Sandbox registration and applied during Production registration.
OAuth redirection	Call back URL and Redirect URI.
OAuth type	Public vs. Confidential. <b>Confidential</b> applications can keep the client ID and client secret secure. <b>Public</b> applications cannot secure the data.
APIs to be accessed	Third-party applications work with Patient Access or Provider Directory APIs. Payer-to-payer applications work solely with Payer APIs.
Payer apps only	The associated payer must be registered first, as described in <a href="#">Registering a New Payer through the Developer Portal</a> .
IP address range	Range of IP addresses to whitelist.
Method of encryption	Encryption support – TLS 1.2 or above. If TLS 1.1 or lower encryption is planned, the application could be denied.
Organizational details	Key website and legal URLs, support contacts, escalation contacts, and developer contacts
Attestation	Attest compliance with the security and privacy policy choices listed on the registration form. These choices ensure the application provides its own privacy policy and terms of use statements. If the developer does not agree to any of the statements, the health plan will notify members to avoid this application and select one that is in compliance.

You can now start the registration process as described in [Registering a Payer Application](#) below.

## Registering a Payer Application

*To register a payer application:*

1. Prepare for registering your application as described in [Preparing to Register a Payer Application](#).
2. Sign in to the Developer Portal as a payer user.
3. Fill in the application and organizational details as described in [Preparing to Register a Payer Application](#).
4. On the Home page, click the **App Registration** button in the top menu. The **App Registration** page appears.
5. Click the **REGISTER NEW APPLICATION** button to start the registration. The **Register New Application** page appears.
6. First off, select the **ENVIRONMENT FOR YOUR APP**. The **Sandbox** radio button is selected by default, because you must register the application in Sandbox before attempting a Production registration.

If you select **Sandbox**, you see fields for the **APP NAME** and **APP DESCRIPTION**. The API Sandbox is a canned collection of desensitized, non-PHI test data which API endpoints can access for test purposes.

But if you select **Production**, in addition to the **APP NAME** and **APP DESCRIPTION** fields, you see a text field for **TEST APP ID FOR YOUR APP**. This App ID (also known as client ID) is provided once the Sandbox registration is approved.

The remainder of the form is the same for either environment selection.

7. Fill in the application and organizational details as described in [Preparing to Register an Application](#).
8. Scroll further down and fill out the **ATTESTATION** section of the form. Be sure to check one or more of the Attestation checkboxes.
9. Click the **SUBMIT** button.


The health plan then reviews the request and either approves or denies it. You will receive an email either way.

If approved, you will receive the auto-generated App ID. You can go to the **Profile** page to see your application's information such as client ID and client secret. You can try testing a few APIs either in the **Try It** tool on the Developer Portal or through SoapUI or Postman. You can also download a swagger file to get going with development.

# Manual Queries for Application Reports

## On This Page:

- [Query 1: Get Specified App IDs](#)
- [Query 1 v2: Get Applications Submitted between Date Range](#)
- [Query 2: Identify the Last Time an API was Triggered by an App ID/or a List of App IDs](#)
- [Query 3: Return the App That Last Triggered an API](#)
- [Query 4: Get App Names by App IDs](#)
- [Query 5: Return Top Three App Usages by Month](#)
- [Query 6: Return Top Three App Usages by Year to Date](#)

 Tenants who wish to have any of these queries executed in their environment should contact their Cognizant support representative or submit a support ticket.

## Query 1: Get Specified App IDs

**Instructions:** Edit the app IDs list with the specific applications to be retrieved.

```
var appIds = ["10facbfe-036a-4090-9ffa-fcabe78063de", "5d34ebc2-1f76-45d1-a2bb-503288c9ecdd", "34250959-95e9-482d-9941-28bd2bda8cf1"]

db.getCollection("AppRegistration").find({appId: {$in: appIds}}, {appId:1, appName:1, requestedBy:1, apiProductCategory:1, requestedOn:1, environment:1, approvedOn:1, deniedOn:1, status:1, appDeveloperEmailAddress:1})
```

## Query 1 v2: Get Applications Submitted between Date Range

**Instructions:** Update the startDate and endDate times to required data ranges to retrieve list of appRegistrations submitted during that period.

```
var startDate = new ISODate("2023-02-01T00:00:00Z");
var endDate = new ISODate("2023-03-01T00:00:00Z");

db.getCollection("AppRegistration").find({requestedOn: { $gte: startDate, $lt: endDate}}, {appId:1, appName:1, requestedBy:1, apiProductCategory:1, requestedOn:1, environment:1, approvedOn:1, deniedOn:1, status:1, appDeveloperEmailAddress:1})
```

## Query 2: Identify the Last Time an API was Triggered by an App ID/or a List of App IDs

**Instructions:** Update values in app ID section to retrieve the data for those targets.

```
SELECT [eventTime], [httpMethod], [requestUri], [appId], [xProductCategory]
FROM (
    SELECT *, ROW_NUMBER() OVER (PARTITION BY appId ORDER BY eventTime DESC) AS rn
    FROM [CONSENT_QA].[dbo].[tz_security_audit]
    WHERE appId IN ('@!EF58.35E0.DA10.5058!0001!AB36.2B74!0008!22CE.E3F3.2FBF.3E2B', 'app2')
) AS ranked_data
WHERE rn = 1;
```

## Query 3: Return the App That Last Triggered an API

### Instructions:

### Assumptions:

1. **TenantId** replaced with actual **tenantId** value.
2. Input list of **appls**.
3. **xProductCategory** can be ignored for Provider Directory API.
4. Replace **appId** list with actual **appls**, and **tenantId** with actual **tenantId**.

Input: List of **appls** for the **tenantId**

Output: **appId**, Payload details, **userName**, product category

```
SELECT tenantId, appId, requestPayload, requestUri, userName, xProductCategory
FROM [CONSENT].[dbo].[tz_security_audit]
WHERE eventTime in
    (SELECT MAX(eventTime) AS last_triggered
     FROM [CONSENT].[dbo].[tz_security_audit]
     WHERE tenantId={tenantId}
     AND appId in ({AppName3}, {AppName2}, {AppName1})
     group by appId
    )
```

## Query 4: Get App Names by App IDs

### Instructions:

### Assumptions:

1. Input list of **appls**.
2. Database selected based on the **tenantId**.
3. Environment variable determination is based on the **tenantId** selected (mhc -> production, mhcsandbox -> sandbox).

Input: List of **appls** and environment (**production** or **sandbox**).

Output: **appId**, **appName**

```
// Replace 'AppId List' with array of app IDs and 'environment' based on tenantId
var appIds = ["appId1","appId2"];
var environment = "sandbox";

db.AppRegistration.find({
  appId: { $in: appIds},
  environment: {$regex: environment, $options: 'i'}
}, {
  appName: 1,
  appId: 2
});
```

## Query 5: Return Top Three App Usages by Month

### Instructions:

### Assumptions:

1. **TenantId** replaced with actual **tenantId** value.
2. **userName** column has the value of 'PROVIDER DIRECTORY' and **xProductCategory** is null or empty for Provider Directory APIs.
3. **xProductCategory** has the value that contains 'Patient Access' for Patient Access APIs.
4. Query runs only for Patient Access and Provider Directory API Usage.

Input: **tenantId**, month interval

Output: **appId**, **xProductCategory** for the **appId**, **TotalAppUsageCount** Monthwise, **TotalAppUsageCount**

```

Step 1: (Populate Temp Table with total count by appId and category)
-----
DROP TABLE IF EXISTS [CONSENT].[dbo].[TEMP_TABLE];

SELECT * INTO [CONSENT].[dbo].[TEMP_TABLE] FROM
(SELECT A.appId, SUM(A.TotalApps) as TotalAppCount FROM
(SELECT appId, Prd_ctgy, count(appId) AS TotalApps FROM
(SELECT appId, CASE
WHEN xProductCategory LIKE '%Patient Access%' then 'Patient Access'
WHEN ((xProductCategory is null or xProductCategory = '' ) and userName = 'PROVIDER DIRECTORY') THEN
'PROVIDER DIRECTORY'
END AS Prd_ctgy,
DATENAME(MONTH, eventTime) AS Closing_Month
FROM [CONSENT].[dbo].[tz_security_audit]
WHERE eventTime >= '2024-01-01' AND eventTime <= '2024-12-31'
AND appId IS NOT NULL
AND tenantId = 'mhc'
) src1
GROUP BY appId, Prd_ctgy)A
GROUP BY appId) B

Step 2: Populate Temp Table 1 with app Rank:
-----
DROP TABLE IF EXISTS [CONSENT].[dbo].[TEMP_TABLE_1];

SELECT * INTO [CONSENT].[dbo].[TEMP_TABLE_1] FROM
(SELECT appId, TotalAppCount, ROW_NUMBER() OVER(ORDER BY TotalAppCount DESC) AS AppRank from [CONSENT].
[dbo].[TEMP_TABLE]) A

STEP 3: (Joining the pivot table with temp table to get the Top 3 App usage count)
-----
SELECT final.appId, Prd_ctgy, ISNULL(January,0) AS January, ISNULL(February,0) as February,
ISNULL(March,0) as March, ISNULL(April,0) as April, ISNULL(May,0) as May,
ISNULL(June,0) as June, ISNULL(July,0) as July, ISNULL(August,0) as August,
ISNULL(September,0) as September, ISNULL(October,0) as October, ISNULL(November,0) as November, ISNULL
(December,0) as December,
(ISNULL(January,0) + isnull(February,0) + ISNULL(March,0) + isnull(April,0)
+ ISNULL(May,0) + ISNULL(June,0) + ISNULL(July,0) + ISNULL(August,0)
+ ISNULL(September,0) + ISNULL(October,0) + ISNULL(November,0) + ISNULL(December,0)) AS Total
FROM
(SELECT * FROM
(SELECT appId, Prd_ctgy, Closing_Month, count(appId) AS TotalApps from
(SELECT appId, CASE
WHEN xProductCategory LIKE '%Patient Access%' then 'Patient Access'
WHEN ((xProductCategory is null or xProductCategory = '' ) and userName = 'PROVIDER DIRECTORY') THEN
'PROVIDER DIRECTORY'
END AS Prd_ctgy,
DATENAME(MONTH, eventTime) AS Closing_Month
FROM [CONSENT].[dbo].[tz_security_audit]
WHERE eventTime >= '2024-01-01' AND eventTime <= '2024-12-31'
AND appId IS NOT NULL
AND tenantId = 'mhc') src1
GROUP BY appId, Prd_ctgy, Closing_Month) SRCTBL
PIVOT
(
sum(TotalApps)
FOR Closing_Month IN ([January], [February], [March], [April], [May], [June], [July], [August],
[September], [October], [November], [December])
) PivotTable
) final
INNER JOIN
[CONSENT].[dbo].[TEMP_TABLE_1] T1
ON final.appId = T1.appId
ORDER BY T1.AppRank

```

## Query 6: Return Top Three App Usages by Year to Date

### Instructions:

### Assumptions:

1. **TenantId** replaced with actual **tenantId** value.
2. **userName** column has the value of 'PROVIDER DIRECTORY' and **xProductCategory** is null or empty for Provider Directory APIs.
3. **xProductCategory** has the value that contains 'Patient Access' for Patient Access APIs.
4. Query runs only for Patient Access and Provider Directory API Usage.
5. May need to tweak it a little bit based on the tenant data.

Input: **tenantId**, **year**

Output: **appId**, **xProductCategory** for the **appId**, **TotalAppUsageCount** for the given year.



```

Step 1: (Populate Temp Table with total count by appId and category)
-----
DROP TABLE IF EXISTS [CONSENT].[dbo].[TEMP_TABLE];

SELECT * INTO [CONSENT].[dbo].[TEMP_TABLE] FROM
(SELECT A.appId, SUM(A.TotalApps) as TotalAppCount FROM
(SELECT appId, Prd_ctgy, count(appId) AS TotalApps FROM
(SELECT appId, CASE
WHEN xProductCategory LIKE '%Patient Access%' then 'Patient Access'
WHEN ((xProductCategory is null or xProductCategory = '' ) and userName = 'PROVIDER DIRECTORY') THEN
'PROVIDER DIRECTORY'
END AS Prd_ctgy,
DATENAME(MONTH, eventTime) AS Closing_Month
FROM [CONSENT].[dbo].[tz_security_audit]
where YEAR(eventTime) > 2023 and YEAR(eventTime) <= 2024
AND appId IS NOT NULL
AND tenantId = 'mhc') src1
GROUP BY appId, Prd_ctgy)A
GROUP BY appId) B

Step 2: Populate Temp Table 1 with app Rank:
-----
DROP TABLE IF EXISTS [CONSENT].[dbo].[TEMP_TABLE_1];

SELECT * INTO [CONSENT].[dbo].[TEMP_TABLE_1] FROM
(SELECT appId, TotalAppCount, ROW_NUMBER() OVER(ORDER BY TotalAppCount DESC) AS AppRank from [CONSENT].
[dbo].[TEMP_TABLE]) A

STEP 3: (Joining the pivot table with temp table to get the Top 3 App usage count)
-----
SELECT final.appId, Prd_ctgy, TotalApps
FROM
(SELECT * FROM
(SELECT appId, Prd_ctgy, count(appId) AS TotalApps from
(SELECT appId, CASE
WHEN xProductCategory LIKE '%Patient Access%' then 'Patient Access'
WHEN ((xProductCategory is null or xProductCategory = '' ) and userName = 'PROVIDER DIRECTORY') THEN
'PROVIDER DIRECTORY'
END AS Prd_ctgy
FROM [CONSENT].[dbo].[tz_security_audit]
where YEAR(eventTime) > 2023 and YEAR(eventTime) <= 2024
AND appId IS NOT NULL
AND tenantId = 'mhc') src1
GROUP BY appId, Prd_ctgy) SRCTBL
) final
INNER JOIN
[CONSENT].[dbo].[TEMP_TABLE_1] T1
ON final.appId = T1.appId
ORDER BY T1.AppRank

```

# Developer Portal FAQs for Health Plan Administrators

---

You can also access additional FAQs from Microsoft here: <https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-developer-portal#cors>.

## 1 - What kind of applications can be developed in the Developer Portal?

The Developer Portal supports two main types of applications: third-party healthcare applications and payer-to-payer applications. Third-party applications are typically a member-based smartphone application where members can prove eligibility, check claims and make doctor appointments. Payer-to-payer applications typically are written to transfer member data between two different payers in cases where members change health plans.

The corresponding **roles** for these two application types are: third-party developers and payer developers.

## 2 - How do third-party and payer developers navigate to the Developer Portal?

The Developer Portal is a public facing internet page. During implementation, this URL is provided to you in case you want to enable a link on your own public-facing website to direct developers to the page. Alternatively, you can share the link in any other way if developers reach out to you directly. Developers can also search for the page using standard internet search engines.

## 3 - What can a developer do on the portal prior to registering?

After a developer navigates to the Developer Portal URL, they are introduced to the interoperability APIs and the categories of data they can access. In addition, they have the ability to view API documentation for all of the APIs that are offered through the API Gateway. This access also includes request parameters as well as sample data and responses that are viewable in a developer friendly format. After a developer reviews the available APIs, they can then initiate registration to begin their application development and testing.

## 4 - How does a developer register on the portal?

Registration can occur in two ways:

- You can automate the process automatically after a developer approaches you directly with a request to develop an application against your interoperability APIs. See [FAQ 5](#) for more detail.

- Developers navigate to the “Sign Up” link. There, developers can enter basic user information. After the request is submitted, the Developer Portal performs the following functions:
  - The Developer Portal creates the account.
  - The Developer Portal notifies the developer of the request and your approval process can then begin. See [FAQ 5](#) below for more detail.

There are APIs available to get information about third-party developers. This information includes a verified email address.

## 5 - What can a developer do after they are registered?

After registration, a developer can begin calling APIs against mock test data, and they can register their application and begin to build it.

## 6 - How do I approve a developer to allow them to begin developing an application against your interoperability APIs?

When either a developer approaches you directly with a request to develop, or we notify you during the developer registration process of a request from a developer, your approval process begins. You will approve the developer request following your pre-determined business process, which may include standard attestation statements such as how PHI data will be protected or what secondary usages of data may be. After your business process approves the developer request, you can automate that approval in the Developer Portal by calling an API that then completes the registration process for the developer.

## 7 - How do I manage developers?

Previous questions have addressed directing developers to the Developer Portal as well as describing the way the developers will be approved to build applications against your APIs. There are APIs available that allow for blocking and deleting user accounts. APIs available that allow a client to remove an account from groups.

# Quick Start Guide

---

## Try This and That

1. Start by launching the Developer Portal in a browser. The URL will be specific to your health plan.
2. On the Home page, scroll down to see more content.
3. Back at the top, click on the **Help** menu and explore the documentation links on the Help page.
4. Sign up for a Developer Portal account either as a third-party developer or a payer developer role. Navigate to the **Sign Up** page, fill in the form and submit it, then follow the instructions in the email being sent to you.
5. Sign into the Developer Portal with your credentials.
6. Click on an API name such as "patient-access-sandbox".
7. On the ensuing API page, scroll through the list of API calls and select the "Patient Read" API endpoint you have access to based on your role, and select an API endpoint. For example, **Patient Read**. Explore the description, input parameters and response.HTML
8. Click the **Try It** button on the far right and enter any parameters as needed. For instance, select a patient ID from the **Patient ID** dropdown. Enter any parameters as needed.
9. In the **Authorization** dropdown, select the **Authorization Code** option. This takes you to the IDP, where the token is generated and populated on the **Try It** page.
10. Scroll farther down the page and click the **SEND** button.
11. If the call succeeds, you'll see "200 OK" returned along with the data from the request.
12. While on the API page, you can download an OpenAPI ("swagger") file to get a start on your application development:
  - a. Choose a download format from the **API Definition** dropdown.
  - b. The swagger file is downloaded to the **Downloads** folder.

From there you can pull the downloaded file into Postman or your IDE to start development.

---

# Supported APIs and Profiles in the Data Hub

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## Supported APIs and Profiles Table

Detailed definitions for these APIs and profiles are located at the linked locations in the following table.

Resource and Wiki Reference Page Link	Use Case
<p><a href="#">Patient Profile</a></p> <ul style="list-style-type: none"> <li>CARIN</li> <li>US Core</li> </ul>	<p>A member downloads a mobile application and authorizes it to access their member (patient) data on the member's behalf (so they can view it).</p> <p>When the member loads the patient screen in the mobile application UI, they enter a non-unique or family identifier and search for their unique Patient record. The UI calls an external endpoint, which then returns the patient data in an industry-standard format. The patient data is then translated by the mobile application for display to the member. The member now views their patient information in a user friendly way.</p>
<p><a href="#">Practitioner Profile</a></p> <ul style="list-style-type: none"> <li>US Core</li> <li>Da Vinci</li> </ul>	<p>A mobile application is authorized to access a health plan's provider (practitioner) data. The application accepts input of Last Name and/or NPI and sends that to an external endpoint to retrieve the practitioner data.. The application could also allow selection of a specific practitioner from a list, thereby, calling the external endpoint with the practitioner ID.</p> <p>The practitioner data is then translated by the mobile application and viewed by the user..</p>
<p><a href="#">PractitionerRole Profile</a></p> <ul style="list-style-type: none"> <li>CARIN</li> <li>US Core</li> <li>Da Vinci</li> </ul>	<p>A member downloads a mobile application which can help search for information about a Practitioner's affiliation to other Facilities. The application accepts a member's input of Practitioner ID, and calls the Practitioner search resource. If Practitioner ID is not known, the mobile application implements the Practitioner Search to help locate the practitioner ID to search for Facility Affiliations.</p> <p>That call retrieves the bundle of Provider data and returns it in the industry-standard format. The list of Practitioners and their affiliations matching the input search criteria is then formatted for display in the mobile application.</p> <p>The member now views a list of practitioners and their affiliations in a user friendly way.</p>

<p><a href="#">Location Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> <li>• Da Vinci</li> </ul>	<p>The Location endpoint is used during other HL7 FHIR APIs to retrieve location information for a provider. Additionally, it can be called as a stand-alone API. When a user loads the location screen in the mobile application UI, the UI calls in to the external endpoint for the location.</p> <p>That call returns the location data in the industry-standard format where it is then translated by the mobile application for display.</p> <p>The user now views the location information in a user friendly way.</p>
<p><a href="#">Organization Profile</a></p> <ul style="list-style-type: none"> <li>• CARIN</li> <li>• US Core</li> <li>• Da Vinci</li> </ul>	<p>A mobile application would be authorized to access a health plan's organization data for a provider, an employer (group), the Payer itself, or a network in order to display contact information for that organization.</p> <p>When a user loads the organization screen in the mobile application UI, the UI calls in to the external endpoint for the organization. That call retrieves the Organization data and returns it in the industry-standard format. The organization information is then translated by the mobile application for display in a user friendly way.</p>
<p><b>R4 Profiles</b></p>	
<p><a href="#">R4 Claim Profile</a></p>	<p>A member downloads a mobile application and authorizes it to access their claims data on their behalf (so they can view it). When the member loads the claim screen in the mobile application UI, the UI calls the external endpoint for the Claim.</p> <p>The application can either send in a Claim ID (identifier) to return just one claim, or a Patient ID to return all claims for the member.</p> <p>The claims data is then translated by the mobile application for display to the member.</p> <p>The member now views their claims information in a user friendly way.</p>

<a href="#">R4 Consent Profile</a>	<p>An actor (related person or Personal Representative) accesses a mobile application to view their associated member's current deductible balances. The application UI calls <b>Consent</b> to make sure the member has a consent record on file to allow the actor to access the health plan data. On passing the consent check, the application calls an external endpoint that returns the deductible information in an industry standard format. The application translates the information and displays it to the actor.</p>
<a href="#">R4 MedicationDispense Profile</a>	<p>A member has been prescribed a medication. The prescription has been sent to their pharmacy. When the pharmacy system responds to the medication order for the member, the result is a medication dispense. The <b>MedicationDispense</b> is an event resource from the perspective of a FHIR workflow. It includes a description of the medication and instructions for administering the medication.</p>
<a href="#">R4 Contract Profile</a>	<p>The <b>Contract</b> endpoint can instantiate various types of legally enforceable agreements or policies as shareable, consumable, and executable artifacts as well as precursory content upon which instances may be based or derivative artifacts supporting management of their basal instance. The resource can represent a broad range of legal artifacts such as a legal contract, templates for rules or obligations, organizational or jurisdictional policy, or a derivative of a contract.</p>
<a href="#">R4 Person Profile</a>	<p>The <b>Person</b> resource serves as a linkage resource for a set of common demographics for an individual (human or animal) across multiple roles. This linkage can be direct to role-specific FHIR resources (Patient, Practitioner and RelatedPerson) residing on the same or possibly distinct FHIR systems/applications, or indirectly through the use of business identifiers. The Person resource may be used in many situations/contexts.</p>
<b>US Core Profiles</b>	
<a href="#">AllergyIntolerance Profile</a> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A provider uses an application to retrieve the allergy and adverse reaction information for a patient. The application UI calls an external endpoint which returns the allergies and any adverse reactions associated with the patient in an industry-standard format. The application translates the information and displays it to the provider.</p>



<p><a href="#">CarePlan Profile</a></p> <ul style="list-style-type: none"><li>• US Core</li></ul>	<p>A member accesses a mobile application to view their care plan set up by their provider for their condition, such as diabetes. The application UI calls an external endpoint which returns the care plan information, including the goal of the plan, and the team that is providing care to the member for this plan. The application translates the information and displays it to the member.</p>
<p><a href="#">CareTeam Profile</a></p> <ul style="list-style-type: none"><li>• US Core</li></ul>	<p>The <b>CareTeam</b> endpoint is used by other HL7 FHIR APIs, such as the CarePlan endpoint, to retrieve information about the team of practitioners who provide care for a patient. Additionally, it can be called as a stand-alone API.</p>
<p><a href="#">Condition Profile</a></p> <ul style="list-style-type: none"><li>• US Core</li></ul>	<p>A member uses a mobile application to retrieve their current and past conditions. The application UI calls an external endpoint which returns the conditions that meet the filters, such as the type of condition. The application translates the information and displays it to the member.</p>
<p><a href="#">DiagnosticReport Profile for Laboratory Results Reporting</a></p> <ul style="list-style-type: none"><li>• US Core</li></ul>	<p>A member downloads a mobile application and authorizes it to access their member (patient) laboratory results data so they can view it.</p> <p>The UI calls an external endpoint, which then returns the laboratory result data in an industry-standard format.</p> <p>The laboratory result data is then translated by the mobile application for display to the member.</p> <p>The member now views their laboratory results in a user friendly way.</p>
<p><a href="#">DiagnosticReport Profile for Report and Note exchange</a></p> <ul style="list-style-type: none"><li>• US Core</li></ul>	<p>A member accesses a mobile application and authorizes it to access their diagnostic reports related to their cardiac condition. The UI calls an external endpoint, which returns the diagnostic reports in an industry-standard format. The application translates the diagnostic report information and displays it to the member.</p>

<p><a href="#">DocumentReference Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member has recently had an outpatient procedure performed. They want to review what the clinic told them about what activities they could do. The member accesses a mobile application which calls an external endpoint to gather the information the provider entered about their activity level after the procedure. The external endpoint returns the information in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><a href="#">Encounter Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member accesses a mobile application to find out information about their last visit with a particular doctor. The application UI calls an external endpoint which returns the encounter information in an industry standard format. The application translates the information and displays it to the member.</p>
<p><a href="#">Goal Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member has diabetes and their provider has given them a goal of reducing their A1C blood sugar levels. The member accesses a mobile application to see how they are proceeding towards their goal. The application UI calls an external endpoint which returns the goal information in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><a href="#">Immunization Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A parent has been asked by a practitioner to provide a list of immunizations that their child has received. The parent authorizes a mobile application to retrieve their child's immunization information. The application UI calls an external endpoint which returns the immunization information in an industry-standard format. The application then translates the data and displays it to the parent.</p>
<p><a href="#">Implantable Device Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member has received a knee replacement and wants to see the type of device that was used. The member accesses a mobile application which calls an external endpoint. The endpoint returns the knee replacement device details in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><a href="#">Laboratory Result Observation Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>The laboratory result observation profile represents an individual test and result, or a nested set of tests, such as microbial susceptibility panel. The DiagnosticReport endpoint is used to group and summarize these individual test results.</p>

<p><a href="#">Medication Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member uses a mobile application to find out information about medications that they are taking. The application UI calls an external endpoint which returns the medication information in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><a href="#">MedicationRequest Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member has been prescribed a medication by their provider. They use a mobile application to request a refill of a medication they are currently taking. The application UI calls an external endpoint which sends the medication information in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><a href="#">Pediatric BMI for Age Observation Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member accesses a mobile application to see how their baby is growing by looking at their body mass index and comparing it against the averages for their age. The application UI calls an external endpoint which returns the information in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><a href="#">Pediatric Weight for Height Observation Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member accesses a mobile application to see how their baby is growing by looking at their weight and comparing it against the averages for their height and age. The application UI calls an external endpoint which returns the information in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><a href="#">Procedure Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member uses a mobile application to see what procedures have already been performed for a condition for which they have sought treatment. The application UI calls an external endpoint which returns the procedure information associated with the member in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><a href="#">Provenance Profile</a></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>The Provenance resource is used to create an audit trail of changes. It tracks information about the activity that either created, revised, deleted, or signed each version of a resource. It includes the agents and entities involved in the change. This information can be used to access the trustworthiness or quality of the information. It can also provide pointers of how to further investigate the origins of the resource and the information contained within it.</p>

<p><b>Pulse Oximetry Profile</b></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member has their blood oxygen saturation levels regularly monitored by a provider using a pulse oximetry device. The member uses an application to retrieve information on their pulse oximetry readings. The application UI calls an external endpoint which returns the pulse oximetry information associated with the member in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><b>Smoking Status Observation Profile</b></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member uses a mobile application to retrieve information on whether they are currently smoking or have smoked in the past. The application UI calls an external endpoint which returns the smoking status associated with the member in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><b>Vital Signs Profile</b></p> <ul style="list-style-type: none"> <li>• US Core</li> </ul>	<p>A member uses a mobile application to retrieve their blood pressure and heart rate readings at their last doctor visit. The application UI calls an external endpoint which returns those readings at their last visit in an industry-standard format. The application translates the information and displays it to the member.</p>
<p><b>CARIN-BB Profiles</b></p>	
<p><b>Coverage Profile</b></p> <ul style="list-style-type: none"> <li>• CARIN-BB</li> </ul>	<p>The coverage endpoint is used during other HL7 FHIR APIs to retrieve coverage (enrollment) information for a member. Additionally, it can be called as a stand-alone API. When a user loads the coverage screen in the mobile application UI, the UI calls in to the external endpoint for coverage. That call will retrieve the coverage data and return it in the industry-standard format where it is then translated by the mobile application for display. The user now views the coverage information in a user friendly way.</p>
<p><b>ExplanationOfBenefit Profile</b></p> <ul style="list-style-type: none"> <li>• CARIN-BB</li> </ul>	<p>A member downloads a mobile application and authorizes it to access their EOB data on the member's behalf (so they can view it). When the member loads the EOB screen in the mobile application UI, the application requests filtering criteria to limit the number of EOB's returned. The member can filter by Status, Date, and Claim ID to refine their search. The UI calls the external endpoint for the EOB. That call retrieves the EOB data and returns it in the industry-standard format. The EOB data is then translated by the mobile application for display to the member.</p>

<p><a href="#">ExplanationOfBenefit- Inpatient-Facility Profile</a></p> <ul style="list-style-type: none"> <li>CARIN-BB</li> </ul>	<p>A member downloads a mobile application and authorizes it to access their EOB data for their claims when they had services performed by a hospital, clinic, or other facility as an inpatient. . When the member loads the EOB screen in the mobile application UI, the application requests filtering criteria to limit the number of EOB's returned. The member can filter by Status, Date, and Claim ID to refine their search. The UI calls the external endpoint for the EOB. That call retrieves the inpatient EOB data and returns it in the industry-standard format . The EOB data is then translated by the mobile application for display to the member.</p>
<p><a href="#">ExplanationOfBenefit- Outpatient-Facility Profile</a></p> <ul style="list-style-type: none"> <li>CARIN-BB</li> </ul>	<p>A member downloads a mobile application and authorizes it to access their EOB data for their claims when they had services performed by a hospital, clinic, or other facility as an outpatient. When the member loads the EOB screen in the mobile application UI, the application requests filtering criteria to limit the number of EOB's returned. The member can filter by Status, Date, and Claim ID to refine their search. The UI calls the external endpoint for the EOB. That call retrieves the outpatient EOB data and returns it in the industry-standard format . The EOB data is then translated by the mobile application for display to the member.</p>
<p><a href="#">ExplanationOfBenefit - Pharmacy</a></p> <ul style="list-style-type: none"> <li>CARIN-BB</li> </ul>	<p>A member downloads a mobile application and authorizes it to access their EOB data for their claims that were submitted by a retail pharmacy. When the member loads the EOB screen in the mobile application UI, the application requests filtering criteria to limit the number of EOB's returned. The member can filter by Status, Date, and Claim ID to refine their search. The UI calls the external endpoint for the EOB. That call retrieves the pharmacy EOB data and returns it in the industry-standard format . The EOB data is then translated by the mobile application for display to the member.</p>
<p><a href="#">ExplanationOfBenefit - Professional NonClinician</a></p> <ul style="list-style-type: none"> <li>CARIN-BB</li> </ul>	<p>A member downloads a mobile application and authorizes it to access their EOB data for their claims that were submitted by a provider, supplier, or other non-institutional provider for either inpatient or outpatient services. When the member loads the EOB screen in the mobile application UI, the application requests filtering criteria to limit the number of EOB's returned. The member can filter by Status, Date, and Claim ID to refine their search. The UI calls the external endpoint for the EOB. That call retrieves the EOB data and returns it in the industry-standard format . The EOB data is then translated by the mobile application for display to the member.</p>

<p><a href="#">RelatedPerson Profile</a></p> <ul style="list-style-type: none"> <li>CARIN-BB</li> </ul>	<p>RelatedPersons typically have a personal or non-healthcare-specific professional relationship to the patient. A RelatedPerson resource is often a source of information about the patient.</p> <p>But for those individuals who you want to contact for a patient, you would use the Patient's Contact element.</p> <p>Individuals may serve as both a Patient's Contact and a Related Person.</p> <p>Example RelatedPersons are:</p> <ul style="list-style-type: none"> <li>A patient's wife or husband</li> <li>A patient's relatives or friends</li> <li>A neighbor bringing a patient to the hospital</li> <li>A patient's attorney or guardian</li> </ul>
<b>Drug Formulary - Pdex Profiles</b>	
<p><a href="#">Coverage Plan Profile</a></p> <ul style="list-style-type: none"> <li>Drug Formulary - Pdex</li> </ul>	<p>A member wants to see which drugs are covered by their health plan. The member accesses a mobile application which calls an external endpoint to retrieve the data. The endpoint returns the data in an industry-standard format, which is then translated by the mobile application to be viewed by the member.</p>
<p><a href="#">Formulary Drug Profile</a></p> <ul style="list-style-type: none"> <li>Drug Formulary - Pdex</li> </ul>	<p>A member is taking a drug for which their health plan will soon discontinue coverage. The member authorizes a mobile application to access their health plan information to see if there are alternative drugs that can replace the drug that they are currently taking. The application calls an external endpoint which retrieves the information in an industry-standard format. The application translates the data and presents it to the member.</p>
<b>Provider Directory - Pdex - Plan Net Profiles</b>	

<p><a href="#">Healthcare Service Profile</a></p> <ul style="list-style-type: none"> <li>• Provider Directory - Pdex - Plan Net</li> </ul>	<p>The Healthcare Service endpoint is used to retrieve a list of the services offered by an organization or practitioner at a given location. Users can retrieve all services offered by a provider for which a request was made. They can limit the result of the search by name, speciality, and other parameters.</p>
<p><a href="#">Insurance Plan Profile</a></p> <ul style="list-style-type: none"> <li>• Provider Directory - Pdex - Plan Net</li> </ul>	<p>A member uses a mobile app to view the benefits associated with their health insurance plan. The UI calls an external endpoint, which then describes the package of benefits that are offered to them. They can retrieve all of the benefits for a given product and network type.</p>
<p><a href="#">MedicationKnowledge Profile</a></p> <ul style="list-style-type: none"> <li>• Provider Directory - Pdex - Plan Net</li> </ul>	<p>A member access a mobile application to view information about a medication that they have been prescribed. The application UI calls an external endpoint which returns information about the drug, such as images of the drug, the classification of the drug, costs, and so on. The application translates the information and displays it to the member.</p>
<p><a href="#">Organization Affiliation Profile</a></p> <ul style="list-style-type: none"> <li>• Provider Directory - Pdex - Plan Net</li> </ul>	<p>The organization affiliation endpoint is used to retrieve relationships between two or more organizations. This relationship can include the services one organization provides to another. It can also include the locations where those services are provided and when the services are available at those locations. Users can retrieve all organization affiliations associated with an Organization Affiliation ID for display.</p>
<p><a href="#">Endpoint Profile</a></p> <ul style="list-style-type: none"> <li>• Provider Directory - Pdex - Plan Net</li> </ul>	<p>The Endpoint resource contains the technical details of an endpoint. This can be used for electronic services, such as a web service that provides a REST endpoint for another FHIR HL7 server.</p>
<p><b>Payer to Payer Operations</b></p>	
<p><a href="#">Payer to Payer - \$member-match, \$everything</a></p>	<p>The Payer to Payer (P2P) resources <b>\$member-match</b> and <b>\$everything</b> provide access to P2P data exchange sandbox data and ultimately production data to exchange data between payers.</p>

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# Common Request Parameters

A few parameters can be used on any Data Hub request to control some aspect of the response. This page covers these common parameters.

## Requesting History Records

You can request past records by specifying the `_history` parameter on GET requests. The `_history` parameter directs Data Hub to retrieve either all history records for a given resource from both the Main and History collections or only a specific history record from the History collection.

GET [base]/[resource-type]/\_history/[version]

where

Attribute	Description
base	The base URL for the API endpoint. Typically includes the server name.
resource-type	The resource type being requested. Can be the <code>/type</code> parameter, the <code>/id</code> parameter, the name of a resource API endpoint, or any combination of the three.
version	The specific record ID for the historical version being requested.

For example:

[base]/Patient/[id]/\_history/[version]

```
[base]/Patient/[id]/_history/[version]

GET https://<datahub_server>/Patient/464fb3d9-55e5-573d-a2d2-0230e7633c13/_history/6

{
  "resourceType": "Patient",
  "id": "464fb3d9-55e5-573d-a2d2-0230e7633c13",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2021-01-15T23:37:45.991+00:00",
    "profile": [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient"
    ]
  },
  "identifier": [
    {
      "use": "official",
      "type": {
        "coding": [
          {
            "code": "MR",
            "display": "MR",
            "userSelected": true
          }
        ]
      }
    }
  ],
}
```

```

    "text" : "MR"
  },
  "system" : "http://hospital.smarthealthit.org",
  "value" : "1113111",
  "period" : {
    "start" : "2019-01-01",
    "end" : "2019-12-31"
  },
  "assigner" : {
    "display" : "Organization/OrgzADDRQ-01"
  }
},
{
  "use" : "official",
  "type" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/v2-0203",
        "code" : "SSN",
        "display" : "SSN",
        "userSelected" : true
      }
    ]
  },
  "text" : "SSN"
},
"system" : "MDM:mdm",
"value" : "111341111",
"period" : {
  "start" : "2019-01-01",
  "end" : "2019-12-31"
},
"assigner" : {
  "display" : "Organization/OrgzADDRQ-02"
}
},
{
  "use" : "official",
  "type" : {
    "coding" : [
      {
        "userSelected" : true
      }
    ]
  },
  "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value" : "NFRV1"
},
{
  "use" : "official",
  "type" : {
    "coding" : [
      {
        "code" : "MR",
        "display" : "MR",
        "userSelected" : true
      }
    ]
  },
  "text" : "MR"
},
"system" : "http://hospital.smarthealthit.org",
"value" : "1113122",
"period" : {
  "start" : "2019-01-01",
  "end" : "2019-12-31"
},
"assigner" : {
  "display" : "Organization/OrgzADDRQ-01"
}
},
{
  "use" : "official",

```

```

    "type" : {
      "coding" : [
        {
          "userSelected" : true
        }
      ]
    },
    "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value" : "NFRV1"
  },
  {
    "use" : "official",
    "type" : {
      "coding" : [
        {
          "userSelected" : true
        }
      ]
    },
    "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value" : "NFRV1"
  },
  {
    "use" : "official",
    "type" : {
      "coding" : [
        {
          "userSelected" : true
        }
      ]
    },
    "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value" : "NFRV1"
  },
  {
    "use" : "official",
    "type" : {
      "coding" : [
        {
          "userSelected" : true
        }
      ]
    },
    "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value" : "NFRV1"
  },
  {
    "use" : "official",
    "type" : {
      "coding" : [
        {
          "code" : "MR",
          "display" : "MR",
          "userSelected" : true
        }
      ],
      "text" : "MR"
    },
    "system" : "http://hospital.smarthealthit.org",

```

```
    "value" : "1113119",
    "period" : {
      "start" : "2019-01-01",
      "end" : "2019-12-31"
    },
    "assigner" : {
      "display" : "Organization/OrgzADDRQ-01"
    }
  },
  {
    "use" : "official",
    "type" : {
      "coding" : [
        {
          "userSelected" : true
        }
      ]
    },
    "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value" : "NFRV1"
  }
],
"active" : true,
"name" : [
  {
    "use" : "official",
    "text" : "jackson L. Morris",
    "family" : "Morris",
    "given" : [
      "jackson",
      "L."
    ]
  }
],
"telecom" : [
  {
    "system" : "phone",
    "value" : "(228)769-8607",
    "use" : "home"
  }
],
"gender" : "male",
"birthDate" : "1992-01-01",
"address" : [
  {
    "use" : "work",
    "type" : "postal",
    "text" : "33 11th St, Pascagoula, MS, 39567",
    "line" : [
      "33 11th St"
    ],
    "city" : "Pascagoula",
    "state" : "MS",
    "postalCode" : "39567",
    "period" : {
      "start" : "2020-01-01",
      "end" : "2070-12-31"
    }
  },
  {
    "use" : "home",
    "type" : "physical",
    "text" : "44 11th St, Pascagoula, MS, 39567",
    "line" : [
      "44 11th St"
    ],
    "city" : "Pascagoula",
    "state" : "MS",
    "postalCode" : "39567",
    "period" : {
      "start" : "2020-01-30",
```

```

        "end" : "2071-10-31"
      }
    },
    {
      "use" : "work",
      "type" : "postal",
      "text" : "313 11th St, Pascagoula, MS, 39567",
      "line" : [
        "313 11th St"
      ],
      "city" : "Pascagoula",
      "state" : "MS",
      "postalCode" : "39567",
      "period" : {
        "start" : "2020-01-01",
        "end" : "2070-12-31"
      }
    },
    {
      "use" : "home",
      "type" : "physical",
      "text" : "414 11th St, Pascagoula, MS, 39567",
      "line" : [
        "414 11th St"
      ],
      "city" : "Pascagoula",
      "state" : "MS",
      "postalCode" : "39567",
      "period" : {
        "start" : "2020-01-30",
        "end" : "2071-10-31"
      }
    }
  ],
  "contact" : [
    {
      "name" : {
        "use" : "official"
      },
      "gender" : "other",
      "organization" : {
        "reference" : "Organization/05c59581-cb14-518a-bb70-d929b9ebf48f"
      }
    },
    {
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        "use" : "official"
      },
      "gender" : "other",
      "organization" : {
        "reference" : "Organization/05c59581-cb14-518a-bb70-d929b9ebf48f"
      }
    },
    {
      "name" : {
        "use" : "official"
      },
      "gender" : "other",
      "organization" : {
        "reference" : "Organization/05c59581-cb14-518a-bb70-d929b9ebf48f"
      }
    },
    {
      "name" : {
        "use" : "official"
      },
      "gender" : "other",
      "organization" : {
        "reference" : "Organization/05c59581-cb14-518a-bb70-d929b9ebf48f"
      }
    }
  ],

```

```
{
  "name" : {
    "use" : "official"
  },
  "gender" : "other",
  "organization" : {
    "reference" : "Organization/05c59581-cb14-518a-bb70-d929b9ebf48f"
  }
},
{
  "name" : {
    "use" : "official"
  },
  "gender" : "other",
  "organization" : {
    "reference" : "Organization/05c59581-cb14-518a-bb70-d929b9ebf48f"
  }
},
{
  "name" : {
    "use" : "official"
  },
  "gender" : "other",
  "organization" : {
    "reference" : "Organization/05c59581-cb14-518a-bb70-d929b9ebf48f"
  }
}
],
"communication" : [
  {
    "language" : {
      "coding" : [
        {
          "system" : "urn:ietf:bcp:47",
          "code" : "en",
          "display" : "en",
          "userSelected" : true
        }
      ],
      "text" : "LAN0072 : SPANISH"
    },
    "preferred" : false
  }
],
"generalPractitioner" : [
  {
    "reference" : "Practitioner/735f04c6-1595-5d5a-b005-aea5462f2e38"
  }
],
"managingOrganization" : {
  "reference" : "Organization/05c59581-cb14-518a-bb70-d929b9ebf48f"
}
}
```

## Changing the Data Profile of the GET Response

You can change the data profile for any **GET [base]/[resource-type]** request by specifying one of the "profile" parameters.

- With the **[/id]** parameter, you can include the **X-Profile** header parameter in the request. This header parameter allows you to change the profile of the response.

- If matched with other attributes such as **name**, **address** and **identifier**, you can change the data profile in the response using the **\_profile** query parameter. If you combine the **\_profile** and **X-Profile** parameters in the same request, the **\_profile** query parameter takes precedence.

The value of **\_profile** and **X-Profile** can be found on any of the profile reference pages by using the Response Parameters URLs embedded in the links.

Here's an example request URL showing the use of the **\_profile** query parameter in a search requests:

```
GET /Practitioner?identifier=http://www.acme.org/practitioners|25456&_profile=http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner
```

# AllergyIntolerance

---

## Use Case

A provider uses an application to retrieve the allergy and adverse reaction information for a patient. The application UI calls an external endpoint which returns the allergies and any adverse reactions associated with the patient in an industry-standard format. The application translates the information and displays it to the provider.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/AllergyIntolerance?patient=[reference]
- GET [base]/AllergyIntolerance?[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core AllergyIntolerance Profile](#)

## Error Codes

Definition of error codes



Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/AllergyIntolerance?patient=[reference]

```
[base] / AllergyIntolerance ? patient = [reference]
GET /AllergyIntolerance?patient=07710040201

{
  "resourceType": "Bundle",
  "id": "02ffded3-9f2f-4f1a-9358-c93032bd94be",
  "meta": {
    "lastUpdated": "2021-01-25T00:42:11.165+00:00"
  },
  "type": "searchset",
  "total": 6,
  "link": [{
    "relation": "self",
    "url": "https://<datahub-server>/AllergyIntolerance?patient=07710040201"
  }, {
    "relation": "next",
    "url": "https://<datahub-server>?_getpages=f03e24d3-fc02-534c-87bf-0e61a562cdac&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub-server>/AllergyIntolerance/567878",
    "resource": {
      "resourceType": "AllergyIntolerance",
      "id": "567878",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-allergyintolerance"]
      }
    }
  }
],
}
```

```

      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n      <p>No Known Drug Allergy<
/p>\n      <p>recordedDate:2015-08-06</p>\n      </div>"
      },
      "code": {
        "coding": [{
          "system": "http://snomed.info/sct",
          "code": "409137002",
          "display": "No Known Drug Allergy (situation)"
        }
        ],
        "text": "NKDA"
      },
      "patient": {
        "reference": "Patient/07710040201"
      },
      "recorder": {
        "reference": "Practitioner/07710040267"
      }
    }, {
      "fullUrl": "https://<datahub-server>/AllergyIntolerance/0f694b5d-681c-412c-b004-b23d927b7544",
      "resource": {
        "resourceType": "AllergyIntolerance",
        "id": "0f694b5d-681c-412c-b004-b23d927b7544",
        "meta": {
          "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-
allergyintolerance"]
        },
        "patient": {
          "reference": "Patient/07710040201"
        }
      }
    }, {
      "fullUrl": "https://<datahub-server>/AllergyIntolerance/vk05",
      "resource": {
        "resourceType": "AllergyIntolerance",
        "id": "vk05",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-11-18T22:47:46.817+00:00",
          "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-
allergyintolerance"],
          "tag": [{
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "38ff0dfe-2cca-4ef7-86a4-e667ae253bf8\t\t\t1"
          }
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n      <p>No Known Drug Allergy<
/p>\n      <p>recordedDate:2015-08-06</p>\n      </div>"
        },
        "identifier": [{
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "vk05"
        }
        ],
        "clinicalStatus": {
          "coding": [{
            "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical",
            "code": "active"
          }
          ]
        },
        "verificationStatus": {
          "coding": [{

```

```

        "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-
verification",
        "code": "confirmed"
      }
    ],
    "code": {
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "409137002",
        "display": "No Known Drug Allergy (situation)"
      }],
      "text": "vk04"
    },
    "patient": {
      "reference": "Patient/07710040201"
    }
  }, {
    "fullUrl": "https://<datahub-server>/AllergyIntolerance/AT01",
    "resource": {
      "resourceType": "AllergyIntolerance",
      "id": "AT01",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-11-18T22:49:37.141+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-
allergyintolerance"],
        "tag": [{
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "d07213c0-fb6c-4e7b-b188-feb7e26b909e\t\t\t1"
        }],
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p> <b> Generated Narrative with
Details</b> </p> <p> <b> id</b> : example</p> <p> <b> identifier</b> : 49476534</p> <p> <b> clinicalStatus</b>
: Active <span> (Details : {http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical code
'active'\n      = 'Active', given as 'Active'})</span> </p> <p> <b> verificationStatus</b> : Confirmed
<span> (Details : {http://terminology.hl7.org/CodeSystem/allergyintolerance-verification code\n
'confirmed' = 'Confirmed', given as 'Confirmed'})</span> </p> <p> <b> type</b> : allergy</p> <p> <b>
category</b> : food</p> <p> <b> criticality</b> : high</p> <p> <b> code</b> : Cashew nuts <span> (Details :
{SNOMED CT code '227493005' = 'Cashew nuts', given as 'Cashew nuts'})</span> </p> <p> <b> patient</b> : <a
Patient/example</a> </p> <p> <b> onset</b> : 01/01/2004</p> <p> <b> recordedDate</b> : 09/10/2014 2:58:00
PM</p> <p> <b> recorder</b> : <a Practitioner/example</a> </p> <p> <b> asserter</b> : <a Patient/example</a>
</p> <p> <b> lastOccurrence</b> : 01/06/2012</p> <p> <b> note</b> : The criticality is high because of
the observed anaphylactic reaction when challenged\n      with cashew extract.</p> <blockquote> <p> <b>
reaction</b> </p> <p> <b> substance</b> : cashew nut allergenic extract Injectable Product <span> (Details
: {RxNorm code '1160593' = 'cashew nut allergenic extract Injectable Product',\n      given as
'cashew nut allergenic extract Injectable Product'})</span> </p> <p> <b> manifestation</b> : Anaphylactic
reaction <span> (Details : {SNOMED CT code '39579001' = 'Anaphylaxis', given as 'Anaphylactic reaction'})</span>
</p> <p> <b> description</b> : Challenge Protocol. Severe reaction to subcutaneous cashew extract.
Epinephrine administered</p> <p> <b> onset</b> : 12/06/2012</p> <p> <b> severity</b> : severe</p> <p> <b>
exposureRoute</b> : Subcutaneous route <span> (Details : {SNOMED CT code '34206005' = 'Subcutaneous route',
given as 'Subcutaneous route'})</span> </p> </blockquote> <p> <b> reaction</b> </p> <p> <b>
manifestation</b> : Urticaria <span> (Details : {SNOMED CT code '64305001' = 'Urticaria', given as
'Urticaria'})</span> </p> <p> <b> onset</b> : 01/01/2004</p> <p> <b> severity</b> : moderate</p> <p> <b>
note</b> : The patient reports that the onset of urticaria was within 15 minutes of eating cashews.</p> </blockquote>
</div>"
        },
        "identifier": [{
          "system": "http://acme.com/ids/patients/risks",
          "value": "49476534"
        }], {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "AT01"
        }
      }
    }
  }
}

```

```

    ],
    "clinicalStatus": {
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical",
        "code": "active",
        "display": "Active"
      }
    ]
  },
  "verificationStatus": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-
verification",
      "code": "confirmed",
      "display": "Confirmed"
    }
  ]
},
"type": "allergy",
"category": ["food"],
"criticality": "high",
"code": {
  "coding": [{
    "system": "http://snomed.info/sct",
    "code": "227493005",
    "display": "Cashew nuts"
  }
]
},
"patient": {
  "reference": "Patient/07710040201"
}
}, {
  "fullUrl": "https://<datahub-server>/AllergyIntolerance/AT02",
  "resource": {
    "resourceType": "AllergyIntolerance",
    "id": "AT02",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-11-18T22:56:38.700+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-
allergyintolerance"],
      "tag": [{
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "73424dda-3eaa-46ff-8575-558258506c57\t\t\t1"
      }
    ]
  },
  "text": {
    "status": "generated",
    "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p> <b> Generated Narrative with
Details</b> </p> <p> <b> id</b> : example</p> <p> <b> identifier</b> : 49476534</p> <p> <b> clinicalStatus</b>
: Active <span> (Details : {http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical
'active'\n
= 'Active', given as 'Active'})</span> </p> <p> <b> verificationStatus</b> : Confirmed
<span> (Details : {http://terminology.hl7.org/CodeSystem/allergyintolerance-verification
'confirmed' = 'Confirmed', given as 'Confirmed'})</span> </p> <p> <b> type</b> : allergy</p> <p> <b>
category</b> : food</p> <p> <b> criticality</b> : high</p> <p> <b> code</b> : Cashew nuts <span> (Details :
{SNOMED CT code '227493005' = 'Cashew nuts', given as 'Cashew nuts'})</span> </p> <p> <b> patient</b> : <a>
Patient/example</a> </p> <p> <b> onset</b> : 01/01/2004</p> <p> <b> recordedDate</b> : 09/10/2014 2:58:00
PM</p> <p> <b> recorder</b> : <a> Practitioner/example</a> </p> <p> <b> asserter</b> : <a> Patient/example</a>
</p> <p> <b> lastOccurrence</b> : 01/06/2012</p> <p> <b> note</b> : The criticality is high because of
the observed anaphylactic reaction when challenged\n
with cashew extract.</p> <blockquote> <p> <b>
reaction</b> </p> <p> <b> substance</b> : cashew nut allergenic extract Injectable Product <span> (Details
: {RxNorm code '1160593' = 'cashew nut allergenic extract Injectable Product',\n
given as
'cashew nut allergenic extract Injectable Product'})</span> </p> <p> <b> manifestation</b> : Anaphylactic
reaction <span> (Details : {SNOMED CT code '39579001' = 'Anaphylaxis', given as 'Anaphylactic reaction'})</span>
</p> <p> <b> description</b> : Challenge Protocol. Severe reaction to subcutaneous cashew extract.
Epinephrine administered</p> <p> <b> onset</b> : 12/06/2012</p> <p> <b> severity</b> : severe</p> <p> <b>
exposureRoute</b> : Subcutaneous route <span> (Details : {SNOMED CT code '34206005' = 'Subcutaneous route',

```

```

given as 'Subcutaneous route'})</span> </p> </blockquote> <blockquote> <p> <b> reaction</b> </p> <p> <b>
manifestation</b> : Urticaria <span> (Details : {SNOMED CT code '64305001' = 'Urticaria', given as
'Urticaria'})</span> </p> <p> <b> onset</b> : 01/01/2004</p> <p> <b> severity</b> : moderate</p> <p> <b>
note</b> : The patient reports that the onset of urticaria was within 15 minutes of eating cashews.</p> <
/blockquote> </div>"
    },
    "identifier": [{
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "AT02"
    }
  ],
  "clinicalStatus": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical",
      "code": "active",
      "display": "Active"
    }
  ]
},
"verificationStatus": {
  "coding": [{
    "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-
verification",
    "code": "confirmed",
    "display": "Confirmed"
  }
],
  "type": "allergy",
  "category": ["food"],
  "criticality": "high",
  "code": {
    "coding": [{
      "system": "http://snomed.info/sct",
      "code": "227493005",
      "display": "Cashew nuts"
    }
  ]
},
  "patient": {
    "reference": "Patient/07710040201"
  }
}, {
  "fullUrl": "https://<datahub-server>/AllergyIntolerance/vk01",
  "resource": {
    "resourceType": "AllergyIntolerance",
    "id": "vk01",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-11-25T06:08:42.050+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-
allergyintolerance"],
      "tag": [{
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "7edbeea2-6b5d-4565-ade7-36eeda67848d\t\t\t1"
      }
    ]
  },
  "text": {
    "status": "generated",
    "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n      <p>No Known Drug Allergy<
/p>\n      <p>recordedDate:2015-08-06</p>\n    </div>"
  },
  "identifier": [{
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "vk01"
  }
]
}

```

```
    ],
    "clinicalStatus": {
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical",
        "code": "active"
      }
    ]
  },
  "verificationStatus": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-
verification",
      "code": "confirmed"
    }
  ]
},
"code": {
  "coding": [{
    "system": "http://snomed.info/sct",
    "code": "409137002",
    "display": "No Known Drug Allergy (situation)"
  }
],
  "text": "vk04"
},
"patient": {
  "reference": "Patient/07710040201"
}
}
]
```

[base]/AllergyIntolerance?[/id]

```
[base] / AllergyIntolerance ? [/id]

GET /AllergyIntolerance/vk05

{
  "resourceType" : "AllergyIntolerance",
  "id" : "vk05",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-06-17T07:30:39.383+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-allergyintolerance"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "a97eeef9-3563-4876-8f21-21d0b5932985[1]"
      },
      {
        "code" : "SecurityLabelStamped"
      }
    ]
  },
  "text" : {
    "status" : "generated",
    "div" : "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n      <p>No Known Drug Allergy</p>\n    <p>recordedDate:2015-08-06</p>\n  </div>"
  },
  "clinicalStatus" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical",
        "code" : "active"
      }
    ]
  },
  "verificationStatus" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/allergyintolerance-verification",
        "code" : "confirmed"
      }
    ]
  },
  "code" : {
    "coding" : [
      {
        "system" : "http://snomed.info/sct",
        "code" : "409137002",
        "display" : "No Known Drug Allergy (situation)"
      }
    ],
    "text" : "vk04"
  },
  "patient" : {
    "reference" : "Patient/b17b2420-a4b0-50d6-a6a7-9f689860fc96",
    "type" : "Patient"
  }
}
```

---

## Legal Information:

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# CarePlan

---

## Use Case

A member accesses a mobile application to view their care plan set up by their provider for their condition, such as diabetes. The application UI calls an external endpoint which returns the care plan information, including the goal of the plan, and the team that is providing care to the member for this plan. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/CarePlan?patient=[reference]&category=http://hl7.org/fhir/us/core/CodeSystem/careplan-category|assess-plan
- GET [base]/CarePlan[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core CarePlan Profile](#)

## Error Codes

Definition of error codes

<b>Error Code</b>	<b>Reason</b>
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

# Sample Requests and Responses

## US Core sample request and response

```
[base] / CarePlan ? patient = [reference] & category = http : //hl7.org/fhir/us/core/CodeSystem/careplan-
category|assess-plan

GET    /CarePlan?patient=patient2

{
  "resourceType": "Bundle",
  "id": "26dcb5aa-0571-4a1a-8a05-2caec6ed0bc2",
  "meta": {
    "lastUpdated": "2021-01-24T04:14:39.186+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/CarePlan?patient=patient2"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/CarePlan/CP01",
    "resource": {
      "resourceType": "CarePlan",
      "id": "CP01",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-11-25T06:08:49.780+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-careplan"],
        "tag": [{
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "e01660e6-40ed-41d6-b748-d28fa967e69e\t\t\t1"
        }
      ]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: f001</p><p><b>contained</b>: , </p><p><b>identifier</b>: CP2903 (OFFICIAL)<
/p><p><b>status</b>: completed</p><p><b>intent</b>: plan</p><p><b>subject</b>: <a>P. van de Heuvel</a><
/p><p><b>period</b>: Jun 26, 2011 --> Jun 27, 2011</p><p><b>careTeam</b>: id: careteam</p><p><b>addresses<
/b>: <a>?????</a></p><p><b>goal</b>: id: goal; status: achieved; recovery surgery on heart of patient <span>
(Details )</span>; P. van de Heuvel; Annotation: goal accomplished without complications<
/p><blockquote><p><b>activity</b></p><h3>Details</h3><table><tr><td>-</td><td><b>Kind</b></td><td><b>Code<
/b></td><td><b>Status</b></td><td><b>Prohibited</b></td><td><b>Scheduled[x]</b></td><td><b>Performer</b><
/td></tr><tr><td>*</td><td>ProcedureRequest</td><td>Operation on heart <span>(Details : {SNOMED CT code
'64915003' = 'Operative procedure on heart', given as 'Operation on heart'})</span></td><td>completed<
/td><td>true</td><td>2011-06-27T09:30:10+01:00</td><td><a>P. Voigt</a></td></tr></table></blockquote></div>"
    },
    "identifier": [{
      "use": "official",
      "system": "http://www.bmc.nl/zorgportal/identifiers/careplans",
      "value": "CP2903"
    }
  ], {
    "use": "official",
```



```
        "display" : "9dfa91db-fb0c-48b8-ba14-dff0c86bb8d8\t\t\t1"
      }
    ]
  },
  "extension" : [
    {
      "url" : "http://example.org/fhir/StructureDefinition/careplan#lmp",
      "valueDateTime" : "2013-01-01"
    }
  ],
  "identifier" : [
    {
      "use" : "official",
      "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value" : "Cpingest0127"
    }
  ],
  "status" : "active",
  "intent" : "plan",
  "category" : [
    {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/core/CodeSystem/careplan-category",
          "code" : "assess-plan"
        }
      ]
    }
  ],
  "subject" : {
    "reference" : "Patient/Ptpingest0127"
  },
  "period" : {
    "start" : "2013-01-01",
    "end" : "2013-10-01"
  },
  "careTeam" : [
    {
      "reference" : "CareTeam/Ctp01"
    }
  ],
  "addresses" : [
    {
      "reference" : "Condition/Conp01",
      "display" : "pregnancy"
    }
  ],
  "goal" : [
    {
      "reference" : "Goal/Goalp01"
    }
  ],
  "activity" : [
    {
      "reference" : {
        "display" : "Prenatal vitamin Medication Request"
      }
    },
    {
      "extension" : [
        {
          "url" : "http://example.org/fhir/StructureDefinition/careplan#andetails",
          "valueUri" : "http://orionhealth.com/fhir/careplan/landetails"
        }
      ]
    },
    {
      "detail" : {
        "kind" : "Appointment",
        "code" : {
          "coding" : [
            {
              "system" : "http://example.org/mySystem",
```

```

        "code" : "lan"
      }
    ],
    "text" : "First Antenatal encounter"
  },
  "status" : "scheduled",
  "doNotPerform" : false,
  "scheduledTiming" : {
    "repeat" : {
      "boundsPeriod" : {
        "start" : "2013-02-14",
        "end" : "2013-02-28"
      }
    }
  },
  "performer" : [
    {
      "reference" : "Practitioner/Pracp01",
      "display" : "MavisMidwife"
    }
  ],
  "description" : "The First Antenatal encounter.
Thisiswhereadetailedphysicalexaminationisperformed.andthepregnanacydiscussedwiththemother-to-be."
},
{
  "detail" : {
    "kind" : "Appointment",
    "code" : {
      "coding" : [
        {
          "system" : "http://example.org/mySystem",
          "code" : "an"
        }
      ]
    },
    "text" : "Follow-upAntenatalencounter"
  },
  "status" : "not-started",
  "doNotPerform" : false,
  "scheduledTiming" : {
    "repeat" : {
      "boundsPeriod" : {
        "start" : "2013-03-01",
        "end" : "2013-03-14"
      }
    }
  },
  "performer" : [
    {
      "reference" : "Practitioner/Pracp01",
      "display" : "MavisMidwife"
    }
  ],
  "description" : "Thesecondantenatalencounter.DiscussanyissueshatarosefromtheFirst Antenatal
encounter"
},
{
  "detail" : {
    "kind" : "Appointment",
    "code" : {
      "coding" : [
        {
          "system" : "http://example.org/mySystem",
          "code" : "del"
        }
      ]
    },
    "text" : "Delivery"
  },
  "status" : "not-started",
  "doNotPerform" : false,

```

```
    "scheduledTiming" : {
      "repeat" : {
        "boundsPeriod" : {
          "start" : "2013-09-01",
          "end" : "2013-09-14"
        }
      }
    },
    "performer" : [
      {
        "reference" : "Practitioner/Pracp01",
        "display" : "MavisMidwife"
      }
    ],
    "description" : "Thedelivery."
  }
}
```

---

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# CareTeam

---

## Use Case

The CareTeam endpoint is used by other HL7 FHIR APIs, such as the CarePlan endpoint, to retrieve information about the team of practitioners who provide care for a patient. Additionally, it can be called as a stand-alone API.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/CareTeam?patient=[reference]&status=XXXX
- GET [base]/CareTeam/[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core CareTeam Profile](#)

## Error Codes

Definition of error codes



Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

### US Core sample request and response

```
[base] / CareTeam ? patient = [reference] & status = XXXX

GET /CareTeam?patient=35&status=active

{
  "resourceType": "Bundle",
  "id": "5166cd35-36d9-486a-945d-6e6ab7bec3b8",
  "meta": {
    "lastUpdated": "2021-01-25T00:07:23.588+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/CareTeam?patient=35&status=active"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/CareTeam/263",
    "resource": {
      "resourceType": "CareTeam",
      "id": "263",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2021-01-06T10:04:46.641+00:00",
        "profile": [ "http://hl7.org/fhir/us/core/StructureDefinition/us-core-careteam" ]
      },
      "identifier": [{
        "use": "official",
        "type": {
          "coding": [{
            "system": "system",
```

```

        "code": "code",
        "display": "display"
      }
    ],
    "text": "textString"
  },
  "period": {
    "start": "2020-01-08",
    "end": "2022-01-05"
  },
  "assigner": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }
}, {
  "use": "official",
  "type": {
    "coding": [{
      "system": "system",
      "code": "code",
      "display": "display"
    }]
  },
  "text": "textString"
},
  "period": {
    "start": "2020-11-27",
    "end": "2021-02-15"
  },
  "assigner": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }
}, {
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "263"
}
],
"status": "active",
"category": [{
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }]
},
  "text": "textString"
}, {
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }]
},
  "text": "textString"
}
],
"name": "CareTeam",
"subject": {
  "reference": "Patient/35"
},
"encounter": {
  "reference": "Reference/Id",
  "display": "Reference/Id"
},
"participant": [{
  "role": [{
    "coding": [{
      "system": "system",
      "code": "code",

```

```

        "display": "display"
      }
    ],
    "text": "textString"
  }
],
"member": {
  "reference": "Reference/Id",
  "display": "Reference/Id"
},
"onBehalfOf": {
  "reference": "Reference/Id",
  "display": "Reference/Id"
},
"period": {
  "start": "2020-08-19",
  "end": "2021-05-26"
}
}
],
"reasonCode": [{
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
],
  "text": "textString"
}, {
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
],
  "text": "textString"
}
],
"reasonReference": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
],
"managingOrganization": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
],
"telecom": [{
  "system": "phone",
  "value": "9443865478",
  "use": "home",
  "rank": 1,
  "period": {
    "start": "2020-03-05",
    "end": "2021-11-09"
  }
}
],
"note": [{
  "authorReference": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  },
  "time": "2000-10-23T00:00:00+00:00",

```

```
    "text": "AnnotationText"
  }
]
}
}
}
```

[base]/CareTeam[/id]

```
[base]/CareTeam[/id]

GET /CareTeam/Ctingest01114

{
  "resourceType" : "CareTeam",
  "id" : "Ctingest01114",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-07-20T04:14:17.452+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-careteam"
    ]
  },
  "identifier" : [
    {
      "use" : "official",
      "system" : "https://com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value" : "Ctingest01114"
    }
  ],
  "status" : "active",
  "name" : "US-CoreexampleCareTeam",
  "subject" : {
    "reference" : "Patient/Ptpingest01114"
  },
  "participant" : [
    {
      "role" : [
        {
          "coding" : [
            {
              "system" : "http://example.org/mysys",
              "code" : "lmc"
            }
          ],
          "text" : "Midwife"
        }
      ],
      "member" : {
        "reference" : "Practitioner/Pracp01",
        "display" : "MavisMidwife"
      }
    },
    {
      "role" : [
        {
          "coding" : [
            {
              "system" : "http://example.org/mysys",
              "code" : "obs"
            }
          ],
          "text" : "Obstretitian"
        }
      ],
      "member" : {
        "reference" : "Practitioner/Pracp02",
        "display" : "OscarObstetrician"
      }
    }
  ]
}
```

---

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# Claim

---

## Use Case

A member downloads a mobile application and authorizes it to access their claims data on their behalf (so they can view it). When the member loads the claim screen in the mobile application UI, the UI calls the external endpoint for the Claim. The application can either send in a Claim ID (identifier) to return just one claim, or a Patient ID to return all claims for the member.

The claims data is then translated by the mobile application for display to the member. The member now views their claims information in a user friendly way.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Claim?patient=[reference]
- GET [base]/Claim?patient=[reference]&status=XXXX
- GET [base]/Claim?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]
- GET [base]/Claim?identifier=[system]][value]
- GET [base]/Claim/[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [R4 Claim](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Claim?patient=[reference]

```
[base]/Claim?patient=[reference]
GET    /Claim?patient=156801

{
  "resourceType": "Bundle",
  "id": "5ee7ba40-888a-4fd9-8c37-89183731e8ae",
  "meta": {
    "lastUpdated": "2021-01-25T18:22:08.855+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/qa/datahub/fhir/Claim?patient=156801"
  }],
  "entry": [{
    "fullUrl": "https://<datahub_server>/qa/datahub/fhir/Claim/156801",
    "resource": {
      "resourceType": "Claim",
      "id": "156801",
      "meta": {
        "profile": ["http://hl7.org/fhir/StructureDefinition/Claim"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">A human-readable rendering of the Oral Health Claim</div>"
      },
      "identifier": [{
```



```

        "system": "http://happyvalley.com/claim",
        "value": "12345"
    }
  ],
  "status": "active",
  "type": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/claim-type",
      "code": "oral"
    }]
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/156801"
  },
  "created": "2014-08-16",
  "insurer": {
    "reference": "Organization/2"
  },
  "provider": {
    "reference": "Organization/1"
  },
  "priority": {
    "coding": [{
      "code": "normal"
    }]
  },
  "payee": {
    "type": {
      "coding": [{
        "code": "provider"
      }]
    }
  },
  "careTeam": [{
    "sequence": 1,
    "provider": {
      "reference": "Practitioner/example"
    }
  }],
  "diagnosis": [{
    "sequence": 1,
    "diagnosisCodeableConcept": {
      "coding": [{
        "code": "123456"
      }]
    }
  }],
  "insurance": [{
    "sequence": 1,
    "focal": true,
    "identifier": {
      "system": "http://happyvalley.com/claim",
      "value": "12345"
    },
    "coverage": {
      "reference": "Coverage/9876B1"
    }
  }],
  "item": [{
    "sequence": 1,
    "careTeamSequence": [1],
    "productOrService": {
      "coding": [{

```

```

        "code": "1200"
      }
    ]
  },
  "servicedDate": "2014-08-16",
  "unitPrice": {
    "value": 135.57,
    "currency": "USD"
  },
  "net": {
    "value": 135.57,
    "currency": "USD"
  }
}
]
}, {
  "fullUrl": "https://<datahub_server>/qa/datahub/fhir/Claim/960150",
  "resource": {
    "resourceType": "Claim",
    "id": "960150",
    "meta": {
      "profile": ["http://hl7.org/fhir/StructureDefinition/Claim"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">A human-readable rendering of the
Claim</div>"
    },
    "identifier": [{
      "system": "http://happyhospital.com/claim",
      "value": "9612345"
    }
  ],
  "status": "active",
  "type": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/claim-type",
      "code": "institutional"
    }
  ]
},
  "subType": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/ex-claimsubtype",
      "code": "emergency"
    }
  ]
},
  "use": "claim",
  "patient": {
    "reference": "Patient/156801"
  },
  "created": "2014-08-16",
  "enterer": {
    "identifier": {
      "system": "http://jurisdiction.org/facilities/HOSP1234/users",
      "value": "UC1234"
    }
  },
  "insurer": {
    "reference": "Organization/2"
  },
  "provider": {
    "reference": "Organization/1"
  },
  "priority": {
    "coding": [{
      "code": "normal"
    }
  ]
}
]

```

```

    },
    "payee": {
      "type": {
        "coding": [{
          "code": "provider"
        }]
      }
    },
    "facility": {
      "identifier": {
        "system": "http://jurisdiction.org/facilities",
        "value": "HOSP1234"
      }
    },
    "careTeam": [{
      "sequence": 1,
      "provider": {
        "reference": "Practitioner/example"
      }
    }],
    "diagnosis": [{
      "sequence": 1,
      "diagnosisCodeableConcept": {
        "coding": [{
          "code": "654456"
        }]
      }
    }],
    "procedure": [{
      "sequence": 1,
      "type": [{
        "coding": [{
          "code": "primary"
        }]
      }],
      "date": "2014-08-16",
      "procedureCodeableConcept": {
        "coding": [{
          "code": "SDI9901"
        }]
      },
      "text": "Subcutaneous diagnostic implant"
    },
    "udi": [{
      "reference": "Device/example"
    }],
    "insurance": [{
      "sequence": 1,
      "focal": true,
      "coverage": {
        "reference": "Coverage/9876B1"
      }
    }],
    "item": [{
      "sequence": 1,
      "careTeamSequence": [1],
      "productOrService": {
        "coding": [{
          "system": "http://hl7.org/fhir/ex-serviceproduct",
          "code": "exam"
        }]
      }
    }],

```

```

    ],
    "servicedDate": "2014-08-16",
    "unitPrice": {
      "value": 125,
      "currency": "USD"
    },
    "net": {
      "value": 125,
      "currency": "USD"
    },
    "encounter": [{
      "reference": "Encounter/example"
    }
  ]
},
"total": {
  "value": 125,
  "currency": "USD"
}
}
]
}

```

### [base]/Claim?patient=[reference]&status=XXXX

```

[base] / Claim ? patient = [reference] & status = XXXX

GET /Claim?patient=156801&status=active

{
  "resourceType": "Bundle",
  "id": "c838e3ba-f08b-4ae2-ab83-7ac095673b24",
  "meta": {
    "lastUpdated": "2021-01-25T18:40:33.135+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/qa/datahub/fhir/Claim?patient=156801&status=active"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/qa/datahub/fhir/Claim/156801",
    "resource": {
      "resourceType": "Claim",
      "id": "156801",
      "meta": {
        "profile": ["http://hl7.org/fhir/StructureDefinition/Claim"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">A human-readable rendering of the Oral Health Claim</div>"
      },
      "identifier": [{
        "system": "http://happyvalley.com/claim",
        "value": "12345"
      }
    ],
    "status": "active",
    "type": {
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/claim-type",
        "code": "oral"
      }
    ]
  }
]
}

```

```
    }
  ]
},
"use": "claim",
"patient": {
  "reference": "Patient/156801"
},
"created": "2014-08-16",
"insurer": {
  "reference": "Organization/2"
},
"provider": {
  "reference": "Organization/1"
},
"priority": {
  "coding": [{
    "code": "normal"
  }]
},
"payee": {
  "type": {
    "coding": [{
      "code": "provider"
    }]
  }
},
"careTeam": [{
  "sequence": 1,
  "provider": {
    "reference": "Practitioner/example"
  }
}],
"diagnosis": [{
  "sequence": 1,
  "diagnosisCodeableConcept": {
    "coding": [{
      "code": "123456"
    }]
  }
}],
"insurance": [{
  "sequence": 1,
  "focal": true,
  "identifier": {
    "system": "http://happyvalley.com/claim",
    "value": "12345"
  },
  "coverage": {
    "reference": "Coverage/9876B1"
  }
}],
"item": [{
  "sequence": 1,
  "careTeamSequence": [1],
  "productOrService": {
    "coding": [{
      "code": "1200"
    }]
  },
  "servicedDate": "2014-08-16",
  "unitPrice": {
    "value": 135.57,
    "currency": "USD"
  }
},
```

```

        "net": {
            "value": 135.57,
            "currency": "USD"
        }
    }
}
], {
    "fullUrl": "https://<datahub_server>/qa/datahub/fhir/Claim/960150",
    "resource": {
        "resourceType": "Claim",
        "id": "960150",
        "meta": {
            "profile": ["http://hl7.org/fhir/StructureDefinition/Claim"]
        },
        "text": {
            "status": "generated",
            "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">A human-readable rendering of the
Claim</div>"
        },
        "identifier": [{
            "system": "http://happyhospital.com/claim",
            "value": "9612345"
        }
    ],
    "status": "active",
    "type": {
        "coding": [{
            "system": "http://terminology.hl7.org/CodeSystem/claim-type",
            "code": "institutional"
        }
    ]
    },
    "subType": {
        "coding": [{
            "system": "http://terminology.hl7.org/CodeSystem/ex-claimsubtype",
            "code": "emergency"
        }
    ]
    },
    "use": "claim",
    "patient": {
        "reference": "Patient/156801"
    },
    "created": "2014-08-16",
    "enterer": {
        "identifier": {
            "system": "http://jurisdiction.org/facilities/HOSP1234/users",
            "value": "UC1234"
        }
    },
    "insurer": {
        "reference": "Organization/2"
    },
    "provider": {
        "reference": "Organization/1"
    },
    "priority": {
        "coding": [{
            "code": "normal"
        }
    ]
    },
    "payee": {
        "type": {
            "coding": [{
                "code": "provider"
            }
        ]
    }
    },
}
],
}
}

```

```

"facility": {
  "identifier": {
    "system": "http://jurisdiction.org/facilities",
    "value": "HOSP1234"
  }
},
"careTeam": [{
  "sequence": 1,
  "provider": {
    "reference": "Practitioner/example"
  }
}],
"diagnosis": [{
  "sequence": 1,
  "diagnosisCodeableConcept": {
    "coding": [{
      "code": "654456"
    }]
  }
}],
"procedure": [{
  "sequence": 1,
  "type": [{
    "coding": [{
      "code": "primary"
    }]
  }],
  "date": "2014-08-16",
  "procedureCodeableConcept": {
    "coding": [{
      "code": "SDI9901"
    }]
  },
  "text": "Subcutaneous diagnostic implant"
},
{
  "udi": [{
    "reference": "Device/example"
  }]
}],
"insurance": [{
  "sequence": 1,
  "focal": true,
  "coverage": {
    "reference": "Coverage/9876B1"
  }
}],
"item": [{
  "sequence": 1,
  "careTeamSequence": [1],
  "productOrService": {
    "coding": [{
      "system": "http://hl7.org/fhir/ex-serviceproduct",
      "code": "exam"
    }]
  },
  "servicedDate": "2014-08-16",
  "unitPrice": {
    "value": 125,
    "currency": "USD"
  },
  "net": {
    "value": 125,

```

```

        "currency": "USD"
      },
      "encounter": [{
        "reference": "Encounter/example"
      }
    ]
  },
  "total": {
    "value": 125,
    "currency": "USD"
  }
}
]
}

```

[base]/Claim?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}

```

[base]/Claim?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}
GET /Claim?patient=156801&status=active&created=ge2014-08-16

{
  "resourceType": "Bundle",
  "id": "93ac49be-1bfa-446f-9a9d-bf08bbf0024d",
  "meta": {
    "lastUpdated": "2021-01-25T18:38:33.742+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/qa/datahub/fhir/Claim?created=ge2014-08-16&patient=156801&status=active"
  }],
  "entry": [{
    "fullUrl": "https://<datahub_server>/qa/datahub/fhir/Claim/156801",
    "resource": {
      "resourceType": "Claim",
      "id": "156801",
      "meta": {
        "profile": ["http://hl7.org/fhir/StructureDefinition/Claim"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns='http://www.w3.org/1999/xhtml'>A human-readable rendering of the Oral Health Claim</div>"
      },
      "identifier": [{
        "system": "http://happyvalley.com/claim",
        "value": "12345"
      }],
      "status": "active",
      "type": {
        "coding": [{
          "system": "http://terminology.hl7.org/CodeSystem/claim-type",
          "code": "oral"
        }]
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/156801"
      }
    }
  ]
}

```



```

"created": "2014-08-16",
"insurer": {
  "reference": "Organization/2"
},
"provider": {
  "reference": "Organization/1"
},
"priority": {
  "coding": [{
    "code": "normal"
  }]
},
"payee": {
  "type": {
    "coding": [{
      "code": "provider"
    }]
  }
},
"careTeam": [{
  "sequence": 1,
  "provider": {
    "reference": "Practitioner/example"
  }
}],
"diagnosis": [{
  "sequence": 1,
  "diagnosisCodeableConcept": {
    "coding": [{
      "code": "123456"
    }]
  }
}],
"insurance": [{
  "sequence": 1,
  "focal": true,
  "identifier": {
    "system": "http://happyvalley.com/claim",
    "value": "12345"
  },
  "coverage": {
    "reference": "Coverage/9876B1"
  }
}],
"item": [{
  "sequence": 1,
  "careTeamSequence": [1],
  "productOrService": {
    "coding": [{
      "code": "1200"
    }]
  }
}],
"servicedDate": "2014-08-16",
"unitPrice": {
  "value": 135.57,
  "currency": "USD"
},
"net": {
  "value": 135.57,
  "currency": "USD"
}
]
}

```

```

    }, {
      "fullUrl": "https://<datahub_server>/qa/datahub/fhir/Claim/960150",
      "resource": {
        "resourceType": "Claim",
        "id": "960150",
        "meta": {
          "profile": ["http://hl7.org/fhir/StructureDefinition/Claim"]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">A human-readable rendering of
the Claim</div>"
        },
        "identifier": [{
          "system": "http://happyhospital.com/claim",
          "value": "9612345"
        }
      ],
      "status": "active",
      "type": {
        "coding": [{
          "system": "http://terminology.hl7.org/CodeSystem/claim-type",
          "code": "institutional"
        }
      ]
    },
    "subType": {
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/ex-claimsubtype",
        "code": "emergency"
      }
    ]
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/156801"
  },
  "created": "2014-08-16",
  "enterer": {
    "identifier": {
      "system": "http://jurisdiction.org/facilities/HOSP1234/users",
      "value": "UC1234"
    }
  },
  "insurer": {
    "reference": "Organization/2"
  },
  "provider": {
    "reference": "Organization/1"
  },
  "priority": {
    "coding": [{
      "code": "normal"
    }
  ]
},
"payee": {
  "type": {
    "coding": [{
      "code": "provider"
    }
  ]
}
},
"facility": {
  "identifier": {
    "system": "http://jurisdiction.org/facilities",
    "value": "HOSP1234"
  }
},
"careTeam": [{

```

```

        "sequence": 1,
        "provider": {
          "reference": "Practitioner/example"
        }
      },
    ],
    "diagnosis": [{
      "sequence": 1,
      "diagnosisCodeableConcept": {
        "coding": [{
          "code": "654456"
        }]
      }
    }],
    "procedure": [{
      "sequence": 1,
      "type": [{
        "coding": [{
          "code": "primary"
        }]
      }],
      "date": "2014-08-16",
      "procedureCodeableConcept": {
        "coding": [{
          "code": "SDI9901"
        }]
      },
      "text": "Subcutaneous diagnostic implant"
    },
    {
      "udi": [{
        "reference": "Device/example"
      }]
    }
  ],
  "insurance": [{
    "sequence": 1,
    "focal": true,
    "coverage": {
      "reference": "Coverage/9876B1"
    }
  }],
  "item": [{
    "sequence": 1,
    "careTeamSequence": [1],
    "productOrService": {
      "coding": [{
        "system": "http://hl7.org/fhir/ex-serviceproduct",
        "code": "exam"
      }]
    },
    "servicedDate": "2014-08-16",
    "unitPrice": {
      "value": 125,
      "currency": "USD"
    },
    "net": {
      "value": 125,
      "currency": "USD"
    },
    "encounter": [{
      "reference": "Encounter/example"
    }]
  }],
}

```

```

    ],
    "total": {
      "value": 125,
      "currency": "USD"
    }
  }
}
]
}

```

### [base]/Claim?identifier=[system][value]

```

[base]/Claim?identifier=[system]|[value]

GET /Claim?identifier=http://happyhospital.com/claim|9612345

{
  "resourceType": "Bundle",
  "id": "79fc6a4a-3865-4012-801c-c8874979119b",
  "meta": {
    "lastUpdated": "2021-01-25T18:39:25.327+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/qa/datahub/fhir/Claim?identifier=http%3A%2F%
2Fhappyhospital.com%2Fclaim%7C9612345"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/qa/datahub/fhir/Claim/960150",
    "resource": {
      "resourceType": "Claim",
      "id": "960150",
      "meta": {
        "profile": ["http://hl7.org/fhir/StructureDefinition/Claim"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">A human-readable rendering of
the Claim</div>"
      },
      "identifier": [{
        "system": "http://happyhospital.com/claim",
        "value": "9612345"
      }
    ],
    "status": "active",
    "type": {
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/claim-type",
        "code": "institutional"
      }
    ]
  },
  "subType": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/ex-claimsubtype",
      "code": "emergency"
    }
  ]
},
  "use": "claim",
  "patient": {
    "reference": "Patient/156801"
  },
},

```

```

"created": "2014-08-16",
"enterer": {
  "identifier": {
    "system": "http://jurisdiction.org/facilities/HOSP1234/users",
    "value": "UC1234"
  }
},
"insurer": {
  "reference": "Organization/2"
},
"provider": {
  "reference": "Organization/1"
},
"priority": {
  "coding": [{
    "code": "normal"
  }]
},
"payee": {
  "type": {
    "coding": [{
      "code": "provider"
    }]
  }
},
"facility": {
  "identifier": {
    "system": "http://jurisdiction.org/facilities",
    "value": "HOSP1234"
  }
},
"careTeam": [{
  "sequence": 1,
  "provider": {
    "reference": "Practitioner/example"
  }
}],
"diagnosis": [{
  "sequence": 1,
  "diagnosisCodeableConcept": {
    "coding": [{
      "code": "654456"
    }]
  }
}],
"procedure": [{
  "sequence": 1,
  "type": [{
    "coding": [{
      "code": "primary"
    }]
  }]
}],
"date": "2014-08-16",
"procedureCodeableConcept": {
  "coding": [{
    "code": "SDI9901"
  }]
},
"text": "Subcutaneous diagnostic implant",
"udi": [{
  "reference": "Device/example"
}]
]

```

```

    }
  ],
  "insurance": [{
    "sequence": 1,
    "focal": true,
    "coverage": {
      "reference": "Coverage/9876B1"
    }
  }
],
"item": [{
  "sequence": 1,
  "careTeamSequence": [1],
  "productOrService": {
    "coding": [{
      "system": "http://hl7.org/fhir/ex-serviceproduct",
      "code": "exam"
    }
  ]
},
  "servicedDate": "2014-08-16",
  "unitPrice": {
    "value": 125,
    "currency": "USD"
  },
  "net": {
    "value": 125,
    "currency": "USD"
  },
  "encounter": [{
    "reference": "Encounter/example"
  }
]
},
],
"total": {
  "value": 125,
  "currency": "USD"
}
}
]
}

```

### [base]/Claim/[id]

```

[base]/Claim/[id]

GET /Claim/21112000007

{
  "resourceType" : "Claim",
  "id" : "21112000007",
  "meta" : {
    "profile" : [
      "http://hl7.org/fhir/StructureDefinition/Claim"
    ]
  },
  "identifier" : [
    {
      "use" : "official",
      "type" : {
        "coding" : [
          {
            "system" : "https://<datahub_server>/core/v2/CodingSystem/InterOp",
            "code" : "ClaimID",
            "display" : "Claim ID",
            "userSelected" : true
          }
        ]
      }
    }
  ]
}

```

```

    }
  ],
  "text" : "Claim ID"
},
"system" : "QNXT:tenant1",
"value" : "21112000007",
"assigner" : {
  "display" : "QNXT:tenant1"
}
},
],
"status" : "active",
"type" : {
  "coding" : [
    {
      "system" : "http://terminology.hl7.org/CodeSystem/claim-type",
      "code" : "professional",
      "display" : "Professional",
      "userSelected" : true
    }
  ],
  "text" : "Professional"
},
"use" : "claim",
"patient" : {
  "reference" : "Patient/ZZQAM0000424253",
  "type" : "Patient",
  "identifier" : {
    "use" : "official",
    "type" : {
      "coding" : [
        {
          "system" : "https://<datahub_server>/core/v2/CodingSystem/InterOp",
          "code" : "INTMEMID",
          "display" : "Member Internal ID",
          "userSelected" : true
        }
      ],
      "text" : "Member Internal ID"
    },
    "system" : "QNXT:tenant1",
    "value" : "ZZQAM0000424253",
    "assigner" : {
      "display" : "QNXT:tenant1"
    }
  }
},
"billablePeriod" : {
  "start" : "2021-04-22",
  "end" : "2021-04-22"
},
"created" : "2021-04-22",
"enterer" : {
  "reference" : "Practitioner/QAMMR0000002467",
  "type" : "Practitioner",
  "identifier" : {
    "use" : "official",
    "type" : {
      "coding" : [
        {
          "system" : "https://<datahub_server>/core/v2/CodingSystem/InterOp",
          "code" : "PROVID",
          "display" : "ProvId",
          "userSelected" : true
        }
      ],
      "text" : "ProvId"
    },
    "system" : "QNXT:tenant1",
    "value" : "QAMMR0000002467",
    "assigner" : {

```

```

        "display" : "QNXT:tenant1"
      }
    }
  },
  "provider" : {
    "reference" : "Practitioner/QAMMR0000002467",
    "type" : "Practitioner",
    "identifier" : {
      "use" : "official",
      "type" : {
        "coding" : [
          {
            "system" : "https://<datahub_server>/core/v2/CodingSystem/InterOp",
            "code" : "PROVID",
            "display" : "ProvId",
            "userSelected" : true
          }
        ]
      },
      "text" : "ProvId"
    },
    "system" : "QNXT:tenant1",
    "value" : "QAMMR0000002467",
    "assigner" : {
      "display" : "QNXT:tenant1"
    }
  },
  "priority" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/processpriority",
        "code" : "normal",
        "display" : "Normal",
        "userSelected" : true
      }
    ],
    "text" : "Normal"
  },
  "payee" : {
    "type" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/payeeType",
          "code" : "provider",
          "display" : "Provider",
          "userSelected" : true
        }
      ],
      "text" : "Provider"
    },
    "party" : {
      "reference" : "Practitioner/QAMMR0000002467",
      "type" : "Practitioner",
      "identifier" : {
        "use" : "official",
        "type" : {
          "coding" : [
            {
              "system" : "https://<datahub_server>/core/v2/CodingSystem/InterOp",
              "code" : "PROVID",
              "display" : "ProvId",
              "userSelected" : true
            }
          ]
        },
        "text" : "ProvId"
      },
      "system" : "QNXT:tenant1",
      "value" : "QAMMR0000002467",
      "assigner" : {
        "display" : "QNXT:tenant1"
      }
    }
  }
}

```



```

    }
  },
  "careTeam" : [
    {
      "sequence" : 1,
      "provider" : {
        "reference" : "Practitioner/QAMMR0000002467",
        "type" : "Practitioner",
        "identifier" : {
          "use" : "official",
          "type" : {
            "coding" : [
              {
                "system" : "https://<datahub_server>/core/v2/CodingSystem/InterOp",
                "code" : "PROVID",
                "display" : "ProvId",
                "userSelected" : true
              }
            ],
            "text" : "ProvId"
          },
          "system" : "QNXT:tenant1",
          "value" : "QAMMR0000002467",
          "assigner" : {
            "display" : "QNXT:tenant1"
          }
        }
      },
      "responsible" : true,
      "role" : {
        "coding" : [
          {
            "system" : "https://<datahub_server>/core/v2/CodingSystem/3778",
            "code" : "PT",
            "display" : "Pay to provider",
            "userSelected" : true
          }
        ],
        "text" : "Pay to provider"
      },
      "qualification" : {
        "coding" : [
          {
            "system" : "core:QNXT:careTeam-qualification",
            "code" : "PRACTITIONER",
            "display" : "Payee provider",
            "userSelected" : true
          }
        ],
        "text" : "Payee provider"
      }
    },
    {
      "sequence" : 2,
      "provider" : {
        "reference" : "Practitioner/QAMMR0000002467",
        "type" : "Practitioner",
        "identifier" : {
          "use" : "official",
          "type" : {
            "coding" : [
              {
                "system" : "https://<datahub_server>/core/v2/CodingSystem/InterOp",
                "code" : "PROVID",
                "display" : "ProvId",
                "userSelected" : true
              }
            ],
            "text" : "ProvId"
          }
        }
      }
    }
  ],

```

```

        "system" : "QNXT:tenant1",
        "value" : "QAMMR0000002467",
        "assigner" : {
            "display" : "QNXT:tenant1"
        }
    },
    "responsible" : false,
    "role" : {
        "coding" : [
            {
                "system" : "https://<datahub_server>/core/v2/CodingSystem/3778",
                "code" : "SE",
                "display" : "Servicing provider",
                "userSelected" : true
            }
        ],
        "text" : "Servicing provider"
    },
    "qualification" : {
        "coding" : [
            {
                "system" : "core:QNXT:careTeam-qualification",
                "code" : "PRACTITIONER",
                "display" : "Servicing provider",
                "userSelected" : true
            }
        ],
        "text" : "Servicing provider"
    }
},
"insurance" : [
    {
        "sequence" : 1,
        "focal" : true,
        "coverage" : {
            "reference" : "Coverage/ZZQAM0000424253",
            "type" : "Coverage",
            "identifier" : {
                "use" : "official",
                "type" : {
                    "coding" : [
                        {
                            "system" : "https://<datahub_server>/core/v2/CodingSystem/InterOp",
                            "code" : "INTMEMID",
                            "display" : "Member Internal ID",
                            "userSelected" : true
                        }
                    ],
                    "text" : "Member Internal ID"
                }
            },
            "system" : "QNXT:tenant1",
            "value" : "ZZQAM0000424253",
            "assigner" : {
                "display" : "QNXT:tenant1"
            }
        }
    }
],
"item" : [
    {
        "sequence" : 1,
        "productOrService" : {
            "coding" : [
                {
                    "system" : "core:QNXT:icd-10-proc",
                    "code" : "0011A",
                    "display" : "ADM SARSCOV2 100MCG/0.5ML1S",
                    "userSelected" : true
                }
            ]
        }
    }
]

```

```
    }
  ],
  "text" : "ADM SARSCOV2 100MCG/0.5ML1S"
},
"servicedPeriod" : {
  "start" : "2021-04-22",
  "end" : "2021-04-22"
},
"locationCodeableConcept" : {
  "coding" : [
    {
      "system" : "http://terminology.hl7.org/CodeSystem/ex-serviceplace",
      "code" : "11",
      "display" : "Office",
      "userSelected" : true
    }
  ],
  "text" : "Office"
},
"quantity" : {
  "unit" : "1"
},
"net" : {
  "value" : 5632,
  "currency" : "USD"
}
}
],
"total" : {
  "value" : 523,
  "currency" : "USD"
}
}
```

---

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# Condition

---

## Use Case

A member uses a mobile application to retrieve their current and past conditions. The application UI calls an external endpoint which returns the conditions that meet the filters, such as the type of condition. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Condition?patient=[reference]&category=[system]][value]
- GET [base]/Condition?patient=[reference]&code=[system]][value]
- GET [base]/Condition[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Condition Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Condition?patient=[reference]&category=[system][value]

```
[base]/Condition?patient=[reference]&category=[system][value]
GET    /Condition?patient=217&category=system|code
{
  "resourceType": "Bundle",
  "id": "604f814e-213c-4eb8-a767-82f946640def",
  "meta": {
    "lastUpdated": "2021-01-26T18:23:10.892+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Condition?category=system%7Ccode&patient=217"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Condition/68",
      "resource": {
        "resourceType": "Condition",
        "id": "68",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2021-01-05T18:20:06.920+05:30",
          "profile": [
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition"
          ]
        },
        "identifier": [
```

```
{
  "use": "official",
  "type": {
    "coding": [
      {
        "system": "system",
        "code": "code",
        "display": "display"
      }
    ],
    "text": "textString"
  },
  "period": {
    "start": "2020-08-20",
    "end": "2021-05-23"
  },
  "assigner": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }
},
{
  "use": "official",
  "type": {
    "coding": [
      {
        "system": "system",
        "code": "code",
        "display": "display"
      }
    ],
    "text": "textString"
  },
  "period": {
    "start": "2020-10-28",
    "end": "2021-03-15"
  },
  "assigner": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }
},
{
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "68"
}
],
"clinicalStatus": {
  "coding": [
    {
      "system": "system",
      "code": "code",
      "display": "display"
    }
  ],
  "text": "textString"
},
"verificationStatus": {
  "coding": [
    {
      "system": "system",
      "code": "code",
      "display": "display"
    }
  ],
  "text": "textString"
},
"category": [
  {
    "coding": [
```

```
        {
            "system": "system",
            "code": "code",
            "display": "display"
        }
    ],
    "text": "textString"
},
{
    "coding": [
        {
            "system": "system",
            "code": "code",
            "display": "display"
        }
    ],
    "text": "textString"
}
],
"severity": {
    "coding": [
        {
            "system": "system",
            "code": "code",
            "display": "display"
        }
    ],
    "text": "textString"
},
"code": {
    "coding": [
        {
            "system": "system",
            "code": "code",
            "display": "display"
        }
    ],
    "text": "textString"
},
"bodySite": [
    {
        "coding": [
            {
                "system": "system",
                "code": "code",
                "display": "display"
            }
        ],
        "text": "textString"
    },
    {
        "coding": [
            {
                "system": "system",
                "code": "code",
                "display": "display"
            }
        ],
        "text": "textString"
    }
],
"subject": {
    "reference": "Patient/217"
},
"encounter": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
},
"onsetAge": {
    "value": 23,
    "unit": "yr"
}
```

```
    },
    "abatementAge": {
      "value": 23,
      "unit": "yr"
    },
    "recordedDate": "2021-01-05T18:20:06+05:30",
    "recorder": {
      "reference": "Reference/Id",
      "display": "Reference/Id"
    },
    "asserter": {
      "reference": "Reference/Id",
      "display": "Reference/Id"
    },
    "stage": [
      {
        "summary": {
          "coding": [
            {
              "system": "system",
              "code": "code",
              "display": "display"
            }
          ],
          "text": "textString"
        },
        "assessment": [
          {
            "reference": "Reference/Id",
            "display": "Reference/Id"
          },
          {
            "reference": "Reference/Id",
            "display": "Reference/Id"
          }
        ],
        "type": {
          "coding": [
            {
              "system": "system",
              "code": "code",
              "display": "display"
            }
          ],
          "text": "textString"
        }
      },
      {
        "summary": {
          "coding": [
            {
              "system": "system",
              "code": "code",
              "display": "display"
            }
          ],
          "text": "textString"
        },
        "assessment": [
          {
            "reference": "Reference/Id",
            "display": "Reference/Id"
          },
          {
            "reference": "Reference/Id",
            "display": "Reference/Id"
          }
        ],
        "type": {
          "coding": [
            {
```



```

        "system": "system",
        "code": "code",
        "display": "display"
      }
    ],
    "text": "textString"
  }
},
"evidence": [
  {
    "code": [
      {
        "coding": [
          {
            "system": "system",
            "code": "code",
            "display": "display"
          }
        ],
        "text": "textString"
      },
      {
        "coding": [
          {
            "system": "system",
            "code": "code",
            "display": "display"
          }
        ],
        "text": "textString"
      }
    ],
    "detail": [
      {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      },
      {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      }
    ]
  },
  {
    "code": [
      {
        "coding": [
          {
            "system": "system",
            "code": "code",
            "display": "display"
          }
        ],
        "text": "textString"
      },
      {
        "coding": [
          {
            "system": "system",
            "code": "code",
            "display": "display"
          }
        ],
        "text": "textString"
      }
    ],
    "detail": [
      {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      }
    ]
  }
]

```

```
        },  
        {  
          "reference": "Reference/Id",  
          "display": "Reference/Id"  
        }  
      ],  
      "note": [  
        {  
          "authorReference": {  
            "reference": "Reference/Id",  
            "display": "Reference/Id"  
          },  
          "time": "2000-10-23T05:30:00+05:30",  
          "text": "AnnotationText"  
        }  
      ]  
    }  
  ],  
}  
}
```

[base]/Condition?patient=[reference]&code=[system]|[value]

```
[base]/Condition?patient=[reference]&code=[system]|[value]  
  
GET    /Condition?patient=217&code=system|code  
  
{  
  "resourceType": "Bundle",  
  "id": "48863720-a32c-428b-bfa5-8b0dc5cfb782",  
  "meta": {  
    "lastUpdated": "2021-01-26T18:21:23.583+00:00"  
  },  
  "type": "searchset",  
  "total": 1,  
  "link": [  
    {  
      "relation": "self",  
      "url": "https://<datahub_server>/Condition?code=system%7Ccode&patient=217"  
    }  
  ],  
  "entry": [  
    {  
      "fullUrl": "https://<datahub_server>/Condition/68",  
      "resource": {  
        "resourceType": "Condition",  
        "id": "68",  
        "meta": {  
          "versionId": "1626754457332",  
          "lastUpdated": "2021-01-05T18:20:06.920+05:30",  
          "profile": [  
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition"  
          ]  
        },  
        "identifier": [  
          {  
            "use": "official",  
            "type": {  
              "coding": [  
                {  
                  "system": "system",  
                  "code": "code",  
                  "display": "display"  
                }  
              ]  
            }  
          }  
        ],  
      }  
    }  
  ]  
}
```

```

        "text": "textString"
      },
      "period": {
        "start": "2020-08-20",
        "end": "2021-05-23"
      },
      "assigner": {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      }
    },
    {
      "use": "official",
      "type": {
        "coding": [
          {
            "system": "system",
            "code": "code",
            "display": "display"
          }
        ],
        "text": "textString"
      },
      "period": {
        "start": "2020-10-28",
        "end": "2021-03-15"
      },
      "assigner": {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      }
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "68"
    }
  ],
  "clinicalStatus": {
    "coding": [
      {
        "system": "system",
        "code": "code",
        "display": "display"
      }
    ],
    "text": "textString"
  },
  "verificationStatus": {
    "coding": [
      {
        "system": "system",
        "code": "code",
        "display": "display"
      }
    ],
    "text": "textString"
  },
  "category": [
    {
      "coding": [
        {
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    },
    {
      "coding": [

```

```
        {
            "system": "system",
            "code": "code",
            "display": "display"
        }
    ],
    "text": "textString"
}
],
"severity": {
    "coding": [
        {
            "system": "system",
            "code": "code",
            "display": "display"
        }
    ],
    "text": "textString"
},
"code": {
    "coding": [
        {
            "system": "system",
            "code": "code",
            "display": "display"
        }
    ],
    "text": "textString"
},
"bodySite": [
    {
        "coding": [
            {
                "system": "system",
                "code": "code",
                "display": "display"
            }
        ],
        "text": "textString"
    },
    {
        "coding": [
            {
                "system": "system",
                "code": "code",
                "display": "display"
            }
        ],
        "text": "textString"
    }
],
"subject": {
    "reference": "Patient/217"
},
"encounter": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
},
"onsetAge": {
    "value": 23,
    "unit": "yr"
},
"abatementAge": {
    "value": 23,
    "unit": "yr"
},
"recordedDate": "2021-01-05T18:20:06+05:30",
"recorder": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
},
},
```

```

"asserter": {
  "reference": "Reference/Id",
  "display": "Reference/Id"
},
"stage": [
  {
    "summary": {
      "coding": [
        {
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    },
    "assessment": [
      {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      },
      {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      }
    ],
    "type": {
      "coding": [
        {
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    }
  },
  {
    "summary": {
      "coding": [
        {
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    },
    "assessment": [
      {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      },
      {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      }
    ],
    "type": {
      "coding": [
        {
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    }
  }
],
"evidence": [

```

```
{
  "code": [
    {
      "coding": [
        {
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    },
    {
      "coding": [
        {
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    }
  ],
  "detail": [
    {
      "reference": "Reference/Id",
      "display": "Reference/Id"
    },
    {
      "reference": "Reference/Id",
      "display": "Reference/Id"
    }
  ]
},
{
  "code": [
    {
      "coding": [
        {
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    },
    {
      "coding": [
        {
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    }
  ],
  "detail": [
    {
      "reference": "Reference/Id",
      "display": "Reference/Id"
    },
    {
      "reference": "Reference/Id",
      "display": "Reference/Id"
    }
  ]
}
],
"note": [
  {
```

```

        "authorReference": {
            "reference": "Reference/Id",
            "display": "Reference/Id"
        },
        "time": "2000-10-23T05:30:00+05:30",
        "text": "AnnotationText"
    }
}
]

```

## [base]/Condition[/id]

```

[base]/Condition[/id]

GET /Condition/ConditionResource44400333

{
  "resourceType" : "Condition",
  "id" : "ConditionResource44400333",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-07-19T19:26:47.669+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition"
    ],
    "security" : [
      {
        "system" : "https://<datahub_server>/core/ValueSet/ConfidentialityClassification",
        "code" : "M",
        "display" : "moderate"
      },
      {
        "system" : "https://<datahub_server>/core/ValueSet/SensitivityPolicy",
        "code" : "SICKLE",
        "display" : "sickle cell"
      },
      {
        "system" : "https://<datahub_server>/core/ValueSet/Compartment",
        "code" : "COMPT",
        "display" : "compartment"
      },
      {
        "system" : "https://<datahub_server>/core/ValueSet/SecurityIntegrity",
        "code" : "MASKED",
        "display" : "masked"
      }
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "08c87d01-f5c1-4ab1-9d95-f3e200701db2[1]"
      },
      {
        "code" : "SecurityLabel",
        "display" : "1626722309895"
      },
      {
        "code" : "SecurityLabelStamped"
      }
    ]
  },
  "text" : {
    "status" : "generated",
    "div" : "<div xmlns=\"http://www.w3.org/1999/xhtml\">Severe burn of left ear (Date: 24-May 2012)<

```

```
/div>"
},
"clinicalStatus" : {
  "coding" : [
    {
      "system" : "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code" : "active",
      "display" : "Active"
    }
  ],
  "text" : "Active"
},
"verificationStatus" : {
  "coding" : [
    {
      "system" : "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code" : "confirmed",
      "display" : "Confirmed"
    }
  ],
  "text" : "Confirmed"
},
"category" : [
  {
    "coding" : [
      {
        "system" : "http://hl7.org/fhir/us/core/CodeSystem/condition-category",
        "code" : "health-concern",
        "display" : "Health Concern"
      }
    ],
    "text" : "Health Concern"
  }
],
"code" : {
  "coding" : [
    {
      "system" : "http://snomed.info/sct",
      "code" : "44400333",
      "display" : "Disorder of ear"
    }
  ],
  "text" : "Cost of medications"
},
"subject" : {
  "reference" : "Patient/d7dca033-cc43-5871-ac45-fb38cc93ee24",
  "type" : "Patient",
  "display" : "Amy Shaw"
},
"onsetDateTime" : "2007-12-14"
}
```

---

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# Contract

---

## Use Case

Contracts are promises or understandings that are enforceable by law in case of any violation or breach by any involved party or organization. A **Contract** instance may be a unilateral mandate such as a policy, or a unilateral, bilateral, or multilateral agreement, which impacts the influence of the parties over the terms of the agreement, and the burdens and risks incurred.

**Provider Organization A** enters a risk-based contract with **Payer B**. As part of establishing the contract targets, specific measures and financial incentives are documented. **Payer B** uses historical claims and other information present about members to create a Member Attribution List for **Provider A**. The Member Attribution List identifies the list of patients that **Provider A** is responsible for as part of the contract. **Payer B** needs to exchange this list with **Provider A** periodically to ensure that **Provider A** is aware of the list of patients that it is responsible for as per the contract. **Payer B** could publish the list in standard way and **Provider A** retrieves the list for use. Alternatively **Provider A** may request for the list and **Payer B** provides the list once it is ready.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Contract?identifier=[system]][value]
- GET [base]/Contract?domain=[reference]
- GET [base]/Contract?patient=[reference]
- GET [base]/Contract/[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [R4 Contract](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Contract[base]/Contract?identifier=[system]][value]

```
[base]/Contract[base]/Contract?identifier=[system]][value]
GET /Contract?identifier=Contp03
{
  "resourceType" : "Bundle",
  "id" : "408ce0ef-2e06-4526-8fd7-1ff69452fbf7",
  "meta" : {
    "lastUpdated" : "2022-03-28T15:33:53.729+00:00"
  },
  "type" : "searchset",
  "total" : 1,
  "link" : [
    {
      "relation" : "self",
      "url" : "https://<datahub_server>/Contract?identifier=Contp03"
    }
  ],
  "entry" : [
    {
      "fullUrl" : "https://<datahub_server>/Contract/Contp03",
      "resource" : {
        "resourceType" : "Contract",
        "id" : "Contp03",
        "meta" : {
          "versionId" : "1626754457332",
          "lastUpdated" : "2019-12-18T23:57:06.000-05:00",
          "profile" : [
            "http://hl7.org/fhir/StructureDefinition/Contract"
          ]
        },
        "text" : {
```

```

    "status" : "generated",
    "div" : "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t\t</p>\n\t\t\t\t</div>"
  },
  "identifier" : [
    {
      "use" : "official",
      "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value" : "Contp03"
    }
  ],
  "issued" : "2015-11-18",
  "applies" : {
    "start" : "2017-01-01"
  },
  "subject" : [
    {
      "reference" : "Patient/Ptp03",
      "display" : "P. van de Heuvel"
    }
  ],
  "authority" : [
    {
      "reference" : "Organization/Orgp03",
      "display" : "Michigan Health"
    }
  ],
  "domain" : [
    {
      "reference" : "Location/Locp03",
      "display" : "UK Pharmacies"
    }
  ],
  "type" : {
    "coding" : [
      {
        "system" : "http://loinc.org",
        "code" : "57016-8"
      }
    ]
  },
  "subType" : [
    {
      "coding" : [
        {
          "system" : "http://www.infoway-inforoute.ca.org/Consent-subtype-codes",
          "code" : "Opt-In",
          "display" : "Default Authorization with exceptions."
        }
      ]
    }
  ],
  "term" : [
    {
      "type" : {
        "coding" : [
          {
            "system" : "http://example.org/fhir/consent-term-type-codes",
            "code" : "withhold-from",
            "display" : "Withhold all data from specified actor entity."
          }
        ]
      }
    }
  ],
  "offer" : {
    "topic" : {
      "reference" : "Organization/Orgp03",
      "display" : "Good Health Clinic"
    },
    "text" : "Withhold this order and any results or related objects from any provider."
  }
}

```

```

    ],
    "signer" : [
      {
        "type" : {
          "system" : "http://terminology.hl7.org/CodeSystem/contractsignertypecodes",
          "code" : "COVPTY"
        },
        "party" : {
          "reference" : "Patient/patient2"
        },
        "signature" : [
          {
            "type" : [
              {
                "system" : "urn:iso-astm:E1762-95:2013",
                "code" : "1.2.840.10065.1.12.1.1"
              }
            ],
            "when" : "2013-06-08T10:57:34-07:00",
            "who" : {
              "reference" : "Patient/Ptp03"
            }
          }
        ]
      }
    ],
    "friendly" : [
      {
        "contentAttachment" : {
          "title" : "The terms of the consent in friendly consumer speak."
        }
      }
    ],
    "legal" : [
      {
        "contentAttachment" : {
          "title" : "The terms of the consent in lawyer speak."
        }
      }
    ]
  }
}
]
}
}

```

### [base]/Contract[base]/Contract?domain=[reference]

```

[base]/Contract[base]/Contract?domain=[reference]

GET /Contract?domain=Locp01

{
  "resourceType" : "Bundle",
  "id" : "b0bebd6-50be-4cf6-b970-04d0d5fd2ae4",
  "meta" : {
    "lastUpdated" : "2022-03-28T15:33:53.184+00:00"
  },
  "type" : "searchset",
  "total" : 1,
  "link" : [
    {
      "relation" : "self",
      "url" : "https://<datahub_server>/Contract?domain=Locp01"
    }
  ],
  "entry" : [
    {
      "fullUrl" : "https://<datahub_server>/Contract/Contp01",

```

```

"resource" : {
  "resourceType" : "Contract",
  "id" : "Contp01",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2019-12-18T23:57:06.000-05:00",
    "profile" : [
      "http://hl7.org/fhir/StructureDefinition/Contract"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "118707ba-c671-495b-a4d8-001845f6fb81[1]"
      }
    ]
  },
  "text" : {
    "status" : "generated",
    "div" : "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t\t</div>"
  },
  "identifier" : [
    {
      "use" : "official",
      "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value" : "Contp01"
    }
  ],
  "issued" : "2015-11-18",
  "applies" : {
    "start" : "2017-01-01"
  },
  "subject" : [
    {
      "reference" : "Patient/156801",
      "display" : "P. van de Heuvel"
    }
  ],
  "authority" : [
    {
      "reference" : "Organization/Orgp01",
      "display" : "Michigan Health"
    }
  ],
  "domain" : [
    {
      "reference" : "Location/Locp01",
      "display" : "UK Pharmacies"
    }
  ],
  "author" : {
    "type" : "Patient"
  },
  "type" : {
    "coding" : [
      {
        "system" : "http://loinc.org",
        "code" : "57016-8"
      }
    ]
  },
  "subType" : [
    {
      "coding" : [
        {
          "system" : "http://www.infoway-inforoute.ca.org/Consent-subtype-codes",
          "code" : "Opt-In",
          "display" : "Default Authorization with exceptions."
        }
      ]
    }
  ]
}

```

```

    }
  ],
  "term" : [
    {
      "type" : {
        "coding" : [
          {
            "system" : "http://example.org/fhir/consent-term-type-codes",
            "code" : "withhold-from",
            "display" : "Withhold all data from specified actor entity."
          }
        ]
      },
      "offer" : {
        "topic" : {
          "reference" : "Organization/Orgp01",
          "display" : "Good Health Clinic"
        },
        "text" : "Withhold this order and any results or related objects from any provider."
      }
    }
  ],
  "signer" : [
    {
      "type" : {
        "system" : "http://terminology.hl7.org/CodeSystem/contractsignertypecodes",
        "code" : "COVPTY"
      },
      "party" : {
        "reference" : "Patient/patient2"
      },
      "signature" : [
        {
          "type" : [
            {
              "system" : "urn:iso-astm:E1762-95:2013",
              "code" : "1.2.840.10065.1.12.1.1"
            }
          ],
          "when" : "2013-06-08T10:57:34-07:00",
          "who" : {
            "reference" : "Patient/66b0edac-0bb8-5de1-aedf-8793b2509d07"
          }
        }
      ]
    }
  ],
  "friendly" : [
    {
      "contentAttachment" : {
        "title" : "The terms of the consent in friendly consumer speak."
      }
    }
  ],
  "legal" : [
    {
      "contentAttachment" : {
        "title" : "The terms of the consent in lawyer speak."
      }
    }
  ]
}
]
}
}

```

[base]/Contract[base]/Contract?patient=[reference]

```
[base]/Contract[base]/Contract?patient=[reference]

GET /Contract?patient=Ptp03

{
  "resourceType" : "Bundle",
  "id" : "83acef2d-d436-428c-a951-c2f930d8be02",
  "meta" : {
    "lastUpdated" : "2022-03-28T15:33:54.171+00:00"
  },
  "type" : "searchset",
  "total" : 1,
  "link" : [
    {
      "relation" : "self",
      "url" : "https://<datahub_server>/Contract?patient=Ptp03"
    }
  ],
  "entry" : [
    {
      "fullUrl" : "https://<datahub_server>/Contract/Contp03",
      "resource" : {
        "resourceType" : "Contract",
        "id" : "Contp03",
        "meta" : {
          "versionId" : "1626754457332",
          "lastUpdated" : "2019-12-18T23:57:06.000-05:00",
          "profile" : [
            "http://hl7.org/fhir/StructureDefinition/Contract"
          ]
        },
        "text" : {
          "status" : "generated",
          "div" : "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with Details</b>\n\t\t\t\t<p>\n\t\t\t\t\t</div>"
        },
        "identifier" : [
          {
            "use" : "official",
            "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value" : "Contp03"
          }
        ],
        "issued" : "2015-11-18",
        "applies" : {
          "start" : "2017-01-01"
        },
        "subject" : [
          {
            "reference" : "Patient/Ptp03",
            "display" : "P. van de Heuvel"
          }
        ],
        "authority" : [
          {
            "reference" : "Organization/Orgp03",
            "display" : "Michigan Health"
          }
        ],
        "domain" : [
          {
            "reference" : "Location/Locp03",
            "display" : "UK Pharmacies"
          }
        ],
        "type" : {
          "coding" : [
            {
              "system" : "http://loinc.org",
              "code" : "57016-8"
            }
          ]
        }
      }
    }
  ]
}
```

```
    ],
    "subType" : [
      {
        "coding" : [
          {
            "system" : "http://www.infoway-inforoute.ca.org/Consent-subtype-codes",
            "code" : "Opt-In",
            "display" : "Default Authorization with exceptions."
          }
        ]
      }
    ],
    "term" : [
      {
        "type" : {
          "coding" : [
            {
              "system" : "http://example.org/fhir/consent-term-type-codes",
              "code" : "withhold-from",
              "display" : "Withhold all data from specified actor entity."
            }
          ]
        },
        "offer" : {
          "topic" : {
            "reference" : "Organization/Orgp03",
            "display" : "Good Health Clinic"
          },
          "text" : "Withhold this order and any results or related objects from any provider."
        }
      }
    ],
    "signer" : [
      {
        "type" : {
          "system" : "http://terminology.hl7.org/CodeSystem/contractsignertypecodes",
          "code" : "COVPTY"
        },
        "party" : {
          "reference" : "Patient/patient2"
        },
        "signature" : [
          {
            "type" : [
              {
                "system" : "urn:iso-astm:E1762-95:2013",
                "code" : "1.2.840.10065.1.12.1.1"
              }
            ],
            "when" : "2013-06-08T10:57:34-07:00",
            "who" : {
              "reference" : "Patient/Ptp03"
            }
          }
        ]
      }
    ],
    "friendly" : [
      {
        "contentAttachment" : {
          "title" : "The terms of the consent in friendly consumer speak."
        }
      }
    ],
    "legal" : [
      {
        "contentAttachment" : {
          "title" : "The terms of the consent in lawyer speak."
        }
      }
    ]
  }
}
```



```

    ]
  }
}

```

## [base]/Contract/[id]

```
[base]/Contract/[id]
```

```
GET /Contract/Contp03
```

```

{
  "resourceType" : "Contract",
  "id" : "Contp03",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2019-12-18T23:57:06.000-05:00",
    "profile" : [
      "http://hl7.org/fhir/StructureDefinition/Contract"
    ]
  },
  "text" : {
    "status" : "generated",
    "div" : "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with
Details</b>\n\t\t\t</p>\n\t\t\t</div>"
  },
  "identifier" : [
    {
      "use" : "official",
      "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value" : "Contp03"
    }
  ],
  "issued" : "2015-11-18",
  "applies" : {
    "start" : "2017-01-01"
  },
  "subject" : [
    {
      "reference" : "Patient/Ptp03",
      "display" : "P. van de Heuvel"
    }
  ],
  "authority" : [
    {
      "reference" : "Organization/Orgp03",
      "display" : "Michigan Health"
    }
  ],
  "domain" : [
    {
      "reference" : "Location/Locp03",
      "display" : "UK Pharmacies"
    }
  ],
  "type" : {
    "coding" : [
      {
        "system" : "http://loinc.org",
        "code" : "57016-8"
      }
    ]
  },
  "subType" : [
    {
      "coding" : [

```

```

        {
          "system" : "http://www.infoway-inforoute.ca.org/Consent-subtype-codes",
          "code" : "Opt-In",
          "display" : "Default Authorization with exceptions."
        }
      ]
    },
    "term" : [
      {
        "type" : {
          "coding" : [
            {
              "system" : "http://example.org/fhir/consent-term-type-codes",
              "code" : "withhold-from",
              "display" : "Withhold all data from specified actor entity."
            }
          ]
        },
        "offer" : {
          "topic" : {
            "reference" : "Organization/Orgp03",
            "display" : "Good Health Clinic"
          },
          "text" : "Withhold this order and any results or related objects from any provider."
        }
      }
    ],
    "signer" : [
      {
        "type" : {
          "system" : "http://terminology.hl7.org/CodeSystem/contractsignertypecodes",
          "code" : "COVPTY"
        },
        "party" : {
          "reference" : "Patient/patient2"
        },
        "signature" : [
          {
            "type" : [
              {
                "system" : "urn:iso-astm:E1762-95:2013",
                "code" : "1.2.840.10065.1.12.1.1"
              }
            ],
            "when" : "2013-06-08T10:57:34-07:00",
            "who" : {
              "reference" : "Patient/Ptp03"
            }
          }
        ]
      }
    ],
    "friendly" : [
      {
        "contentAttachment" : {
          "title" : "The terms of the consent in friendly consumer speak."
        }
      }
    ],
    "legal" : [
      {
        "contentAttachment" : {
          "title" : "The terms of the consent in lawyer speak."
        }
      }
    ]
  }

```

---

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# Coverage

---

## Use Case

The coverage endpoint is used during other HL7 FHIR APIs to retrieve coverage (enrollment) information for a member. Additionally, it can be called as a stand-alone API. When a user loads the coverage screen in the mobile application UI, the UI calls in to the external endpoint for coverage. That call will retrieve the coverage data and return it in the industry-standard format where it is then translated by the mobile application for display. The user now views the coverage information in a user friendly way.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Coverage?patient=[reference]
- GET [base]/Coverage/[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [CARIN-BB-Coverage](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

### CARIN BB Sample request and response

```
[base] / Coverage ? patient = [reference]

GET /Coverage?patient=Patient1&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-coverage

{
  "resourceType": "Bundle",
  "id": "a617bc73-ba37-4031-a81a-2acf38de834e",
  "meta": {
    "lastUpdated": "2021-01-25T00:52:50.660+00:00"
  },
  "type": "searchset",
  "total": 7,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Coverage?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcarin%2FStructureDefinition%2Fcarin-bb-coverage&patient=Patient1"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=7cdde129-1691-53fb-a875-f48580da7ac2&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Coverage/Coverage1",
    "resource": {
      "resourceType": "Coverage",
      "id": "Coverage1",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-09-28T06:25:58.558+00:00",
        "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-coverage"]
      }
    }
  }
  ]
}
```

```

    },
    "identifier": [{
      "system": "http://www.bcbs.com/fhir/ns/NamingSystem/insurance-xyz-coverage-
identifier",
      "value": "4B55-8EC3-43A4703CAD34"
    }, {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "Coverage1"
    }
  ],
  "status": "active",
  "type": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/v3-ActCode",
      "code": "EHC POL",
      "display": "extended healthcare"
    }
  ]
},
"subscriberId": "235656886",
"beneficiary": {
  "reference": "Patient/Patient1"
},
"relationship": {
  "coding": [{
    "system": "http://terminology.hl7.org/CodeSystem/subscriber-relationship",
    "code": "self",
    "display": "Self"
  }
]
},
"period": {
  "start": "2010-02-15",
  "end": "2019-03-01"
},
"payor": [{
  "reference": "Organization/Org45"
}
]
}, {
  "fullUrl": "https://<datahub_server>/Coverage/d5d2a848-c605-4533-b8f7-b20a533ecf26",
  "resource": {
    "resourceType": "Coverage",
    "id": "d5d2a848-c605-4533-b8f7-b20a533ecf26",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/car/StructureDefinition/car-bb-coverage"]
    },
    "identifier": [{
      "system": "http://www.bcbs.com/fhir/ns/NamingSystem/insurance-xyz-coverage-
identifier",
      "value": "4B55-8EC3-43A4703CAD34"
    }
  ],
  "beneficiary": {
    "reference": "Patient/Patient1"
  }
}
]
}
}

```

[base]/Coverage[id]

[base]/Coverage[id]

```

GET /Coverage/ICOEPAT001

{
  "resourceType" : "Coverage",
  "id" : "ICOEPAT001",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-05-26T18:33:17.4132029-04:00",
    "source" : "ICoEPatient",
    "profile" : [
      "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-coverage"
    ]
  },
  "identifier" : [
    {
      "type" : {
        "text" : "ENROLLID"
      },
      "value" : "ICOEPAT001"
    },
    {
      "type" : {
        "text" : "TED"
      },
      "value" : "4892934"
    }
  ],
  "status" : "active",
  "subscriber" : {
    "reference" : "Patient/Ptp01"
  },
  "subscriberId" : "Ptp01",
  "beneficiary" : {
    "reference" : "Patient/Ptp01",
    "type" : "Patient"
  },
  "relationship" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/subscriber-relationship",
        "code" : "self",
        "display" : "Self"
      }
    ],
    "text" : "self"
  },
  "period" : {
    "start" : "2021-01-01T00:00:00-05:00",
    "end" : "9999-12-31T00:00:00-05:00"
  },
  "payor" : [
    {
      "reference" : "Organization/BravenHealth"
    }
  ],
  "class" : [
    {
      "type" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/coverage-class",
            "code" : "group",
            "display" : "Group"
          }
        ]
      },
      "value" : "00812B5"
    },
    {
      "type" : {
        "coding" : [

```

```
    {
      "system" : "http://terminology.hl7.org/CodeSystem/coverage-class",
      "code" : "plan",
      "display" : "Plan"
    }
  ],
  "value" : "G8466"
}
]
```

---

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# DiagnosticReport - Laboratory Results Reporting

## Use Case

A member downloads a mobile application and authorizes it to access their member (patient) laboratory results data so they can view it. The UI calls an external endpoint, which then returns the laboratory result data in an industry-standard format. The laboratory result data is then translated by the mobile application for display to the member.

The member now views their laboratory results in a user friendly way.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/DiagnosticReport?patient=[reference]
- GET [base]/DiagnosticReport?patient=[reference]&category=http://terminology.hl7.org/CodeSystem/v2-0074|LAB
- GET [base]/DiagnosticReport?patient=[reference]&code={system}|[value]
- GET [base]/DiagnosticReport?patient=[reference]&category=http://terminology.hl7.org/CodeSystem/v2-0074|LAB&date={gt|lt|ge|le}



### NOTE

The date which is being evaluated is the **effectiveDateTime**.

- GET [base]/DiagnosticReport/[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core DiagnosticReport Profile for Laboratory Results Reporting](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/DiagnosticReport?patient=[reference]

```
[base] / DiagnosticReport ? patient = [reference]

GET /DiagnosticReport?patient=217

{
  "resourceType": "Bundle",
  "id": "84579ffc-cbc5-410d-8673-50929d1802d8",
  "meta": {
    "lastUpdated": "2021-01-26T18:30:58.262+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/DiagnosticReport?patient=217"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/DiagnosticReport/328",
    "resource": {
      "resourceType": "DiagnosticReport",
      "id": "328",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2021-01-05T18:20:07.113+05:30",
        "profile": [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-lab"
        ]
      },
      "identifier": [{
        "use": "official",
```

```

        "type": {
          "coding": [{
            "system": "system",
            "code": "code",
            "display": "display"
          }
        ],
        "text": "textString"
      },
      "period": {
        "start": "2020-01-22",
        "end": "2021-12-20"
      },
      "assigner": {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      }
    }, {
      "use": "official",
      "type": {
        "coding": [{
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    },
    "period": {
      "start": "2020-09-15",
      "end": "2021-04-27"
    },
    "assigner": {
      "reference": "Reference/Id",
      "display": "Reference/Id"
    }
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "328"
  }
],
"basedOn": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
],
"status": "amended",
"category": [{
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
],
  "text": "textString"
}, {
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
],
  "text": "textString"
}
],
"code": {
  "coding": [{

```

```
        "system": "system",
        "code": "code",
        "display": "display"
      }
    ],
    "text": "textString"
  },
  "subject": {
    "reference": "Patient/217"
  },
  "encounter": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  },
  "effectiveDateTime": "2021-01-05T18:20:07+05:30",
  "issued": "2021-01-05T18:20:07.121+05:30",
  "performer": [{
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }, {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }
],
"resultsInterpreter": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
],
"specimen": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
],
"result": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
],
"imagingStudy": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
],
"media": [{
  "comment": "Media comment",
  "link": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }
}
],
"conclusion": "Conclusion",
"conclusionCode": [{
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
]
```

```

        ],
        "text": "textString"
      }, {
        "coding": [{
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
        "text": "textString"
      }
    ],
    "presentedForm": [{
      "contentType": "jpg",
      "language": "language",
      "data": "anNkaGxzzGxkc2hoZHNpbz0=",
      "url": "www.photoUrl",
      "size": 1,
      "hash": "aGFzaA==",
      "title": "PhotoType",
      "creation": "2021-01-05T18:20:07+05:30"
    }, {
      "contentType": "jpg",
      "language": "language",
      "data": "anNkaGxzzGxkc2hoZHNpbz0=",
      "url": "www.photoUrl",
      "size": 1,
      "hash": "aGFzaA==",
      "title": "PhotoType",
      "creation": "2021-01-05T18:20:07+05:30"
    }
  ]
}

```

[base]/DiagnosticReport?patient=[reference]&category=http://terminology.hl7.org/CodeSystem/v2-0074|LAB

```

[base] / DiagnosticReport ? patient = [reference] & category = http : //terminology.hl7.org/CodeSystem/v2-0074|LAB

GET /DiagnosticReport?patient=pat7&category=http://terminology.hl7.org/CodeSystem/v2-0074|LAB

{
  "resourceType": "Bundle",
  "id": "566898e9-b63e-4eb4-9ef5-709c571f402b",
  "meta": {
    "lastUpdated": "2021-01-26T18:33:11.239+00:00"
  },
  "type": "searchset",
  "total": 7,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/DiagnosticReport?category=http%3A%2F%2Fterminology.hl7.org%2FCodeSystem%2Fv2-0074%7CLAB&patient=pat7"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=44356dc9-69e8-5bea-bf69-e0bda724452b&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/DiagnosticReport/cb2b5fe2-aac2-450e-bdec-7898c706483a",
    "resource": {
      "resourceType": "DiagnosticReport",
      "id": "cb2b5fe2-aac2-450e-bdec-7898c706483a",

```

```

"meta": {
  "versionId": "1626754457332",
  "lastUpdated": "2020-09-21T17:45:00.787+00:00",
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-lab"
  ],
  "tag": [{
    "system": "tranzform-apim-request-ns",
    "code": "user-request-id",
    "display": "79f757f4-c1e7-4eac-b89e-406eb21d33c8\t\t\t1"
  }
  ],
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<h3>CBC Report for Wile. E. COYOTE (MRN: 23453) issued 3-Mar 2011 11:45</h3>\n\t\t\t<pre>\nTest                                     Units
Value      Reference Range\nHaemoglobin          g/L          176          135 - 180\nRed Cell Count
x10*12/L    5.9          4.2 - 6.0\nHaematocrit          0.55+          0.38 - 0.52\nMean Cell
Volume      fL          99+          80 - 98\nMean Cell Haemoglobin pg          36+          27 -
35\nPlatelet Count          x10*9/L          444          150 - 450\nWhite Cell Count          x10*9/L          4.6
4.0 - 11.0\nNeutrophils          %          20\nNeutrophils          x10*9/L          0.9---          2.0 - 7.5
\nLymphocytes          %          20\nLymphocytes          x10*9/L          0.9-          1.1 - 4.0
\nMonocytes          %          20\nMonocytes          x10*9/L          0.9          0.2 - 1.0
\nEosinophils          %          20\nEosinophils          x10*9/L          0.92++          0.04 - 0.40
\nBasophils          %          20\nBasophils          x10*9/L          0.92+++          <0.21\n          <
/pre>\n\t\t\t<p>Acme Laboratory, Inc signed: Dr Pete Pathologist</p>\n\t\t\t</div>"
},
"identifier": [{
  "system": "http://acme.com/lab/reports",
  "value": "6234400"
}], {
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "cb2b5fe2-aac2-450e-bdec-7898c706483a"
}
],
"status": "final",
"category": [{
  "coding": [{
    "system": "http://terminology.hl7.org/CodeSystem/v2-0074",
    "code": "LAB"
  }
  ]
}
],
"code": {
  "coding": [{
    "system": "http://loinc.org",
    "code": "58410-4",
    "display": "Complete blood count (hemogram) panel - Blood by Automated count"
  }], {
    "code": "CBC",
    "display": "MASTER FULL BLOOD COUNT"
  }
  ],
  "text": "Complete Blood Count"
},
"subject": {
  "reference": "Patient/pat7"
},
"effectiveDateTime": "2011-03-05T08:30:00+11:00",
"issued": "2011-03-04T11:45:33+11:00"
}, {
  "fullUrl": "https://<datahub_server>/DiagnosticReport/2af38d40-6711-4736-9362-2ea3d655f36e",
  "resource": {
    "resourceType": "DiagnosticReport",
    "id": "2af38d40-6711-4736-9362-2ea3d655f36e",
    "meta": {
      "versionId": "1626754457332",

```

```

    "lastUpdated": "2020-09-21T20:45:53.903+00:00",
    "profile": [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-lab"
    ],
    "tag": [
      {
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "0dc99636-c4eb-4c1d-b833-1187ba9f76a4\t\t\t1"
      }
    ]
  },
  "text": {
    "status": "generated",
    "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<h3>CBC Report for Wile. E. COYOTE (MRN: 23453) issued 3-Mar 2011 11:45</h3>\n\t\t\t<pre>\nTest                                     Units
Value      Reference Range\nHaemoglobin          g/L          176          135 - 180\nRed Cell Count
x10*12/L    5.9          4.2 - 6.0\nHaematocrit          0.55+          0.38 - 0.52\nMean Cell
Volume      fL          99+          80 - 98\nMean Cell Haemoglobin pg          36+          27 -
35\nPlatelet Count      x10*9/L          444          150 - 450\nWhite Cell Count      x10*9/L          4.6
4.0 - 11.0\nNeutrophils          %          20\nNeutrophils          x10*9/L          0.9---          0.9 - 7.5
\nLymphocytes          %          20\nLymphocytes          x10*9/L          0.9-          1.1 - 4.0
\nMonocytes            %          20\nMonocytes            x10*9/L          0.9          0.2 - 1.0
\nEosinophils          %          20\nEosinophils          x10*9/L          0.92++          0.04 - 0.40
\nBasophils            %          20\nBasophils            x10*9/L          0.92+++          <0.21\n          <
/pre>\n\t\t\t<p>Acme Laboratory, Inc signed: Dr Pete Pathologist</p>\n\t\t\t</div>"
  },
  "identifier": [
    {
      "system": "http://acme.com/lab/reports",
      "value": "6234401"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "2af38d40-6711-4736-9362-2ea3d655f36e"
    }
  ],
  "status": "final",
  "category": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/v2-0074",
          "code": "LAB"
        }
      ]
    }
  ],
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "58410-4",
        "display": "Complete blood count (hemogram) panel - Blood by Automated count"
      },
      {
        "code": "CBC",
        "display": "MASTER FULL BLOOD COUNT"
      }
    ]
  },
  "text": "Complete Blood Count"
},
"subject": {
  "reference": "Patient/pat7"
},
"effectiveDateTime": "2011-03-05T08:30:00+11:00",
"issued": "2011-03-04T11:45:33+11:00"
}
]
}
}

```

[base]/DiagnosticReport?patient=[reference]&code={system}][value]

```
[base]/DiagnosticReport?patient=[reference]&code={system|}[code]

GET /DiagnosticReport?patient=217&code=system|code

{
  "resourceType": "Bundle",
  "id": "d3312e66-1edf-4e15-9402-b95537606a02",
  "meta": {
    "lastUpdated": "2021-01-26T18:28:33.124+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/DiagnosticReport?category=system%7Ccode&patient=217"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/DiagnosticReport/328",
    "resource": {
      "resourceType": "DiagnosticReport",
      "id": "328",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2021-01-05T18:20:07.113+05:30",
        "profile": [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-lab"
        ]
      },
      "identifier": [{
        "use": "official",
        "type": {
          "coding": [{
            "system": "system",
            "code": "code",
            "display": "display"
          }
        ],
        "text": "textString"
      }
    ],
      "period": {
        "start": "2020-01-22",
        "end": "2021-12-20"
      },
      "assigner": {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      }
    }, {
      "use": "official",
      "type": {
        "coding": [{
          "system": "system",
          "code": "code",
          "display": "display"
        }
      ],
      "text": "textString"
    },
      "period": {
        "start": "2020-09-15",
        "end": "2021-04-27"
      },
      "assigner": {
        "reference": "Reference/Id",
        "display": "Reference/Id"
      }
    }, {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",

```



```

        "value": "328"
      }
    ],
    "basedOn": [{
      "reference": "Reference/Id",
      "display": "Reference/Id"
    }, {
      "reference": "Reference/Id",
      "display": "Reference/Id"
    }
  ],
  "status": "amended",
  "category": [{
    "coding": [{
      "system": "system",
      "code": "code",
      "display": "display"
    }
  ],
  "text": "textString"
}, {
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
  ],
  "text": "textString"
}
],
"code": {
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
  ],
  "text": "textString"
},
"subject": {
  "reference": "Patient/217"
},
"encounter": {
  "reference": "Reference/Id",
  "display": "Reference/Id"
},
"effectiveDateTime": "2021-01-05T18:20:07+05:30",
"issued": "2021-01-05T18:20:07.121+05:30",
"performer": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
],
"resultsInterpreter": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
],
"specimen": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
]

```

```

    ],
    "result": [{
      "reference": "Reference/Id",
      "display": "Reference/Id"
    }, {
      "reference": "Reference/Id",
      "display": "Reference/Id"
    }
  ],
  "imagingStudy": [{
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }, {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }
],
"media": [{
  "comment": "Media comment",
  "link": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }
}
],
"conclusion": "Conclusion",
"conclusionCode": [{
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
],
  "text": "textString"
}, {
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
],
  "text": "textString"
}
],
"presentedForm": [{
  "contentType": "jpg",
  "language": "language",
  "data": "anNkaGxzzGxkc2hoZHNpbz0=",
  "url": "www.photoUrl",
  "size": 1,
  "hash": "aGFzaA==",
  "title": "PhotoType",
  "creation": "2021-01-05T18:20:07+05:30"
}, {
  "contentType": "jpg",
  "language": "language",
  "data": "anNkaGxzzGxkc2hoZHNpbz0=",
  "url": "www.photoUrl",
  "size": 1,
  "hash": "aGFzaA==",
  "title": "PhotoType",
  "creation": "2021-01-05T18:20:07+05:30"
}
]
}

```

[base]/DiagnosticReport?patient=[reference]&category=http://terminology.hl7.org/CodeSystem/v2-0074|LAB&date={gt|lt|ge|le}

```
[base] / DiagnosticReport ? patient = [reference] & category = http : //terminology.hl7.org/CodeSystem/v2-0074|LAB&date={gt|lt|ge|le}
```

NOTE: The date which is being evaluated is the effectiveDateTime.

```
GET /DiagnosticReport?patient=pat7&category=http://terminology.hl7.org/CodeSystem/v2-0074|LAB&date=ge2011-03-04
```

```
{
  "resourceType": "Bundle",
  "id": "764bab60-58d3-4172-bb1b-937d6cca8141",
  "meta": {
    "lastUpdated": "2021-01-26T18:34:27.747+00:00"
  },
  "type": "searchset",
  "total": 7,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/DiagnosticReport?category=http%3A%2F%2Fterminology.hl7.org%2FCodeSystem%2Fv2-0074%7CLAB&date=ge2011-03-04&patient=pat7"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=e7398027-b22f-5a69-b77a-50a5b62994ab&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/DiagnosticReport/cb2b5fe2-aac2-450e-bdec-7898c706483a",
    "resource": {
      "resourceType": "DiagnosticReport",
      "id": "cb2b5fe2-aac2-450e-bdec-7898c706483a",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-09-21T17:45:00.787+00:00",
        "profile": [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-lab"
        ]
      },
      "tag": [{
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "79f757f4-c1e7-4eac-b89e-406eb21d33c8\t\t\t1"
      }
    ]
  },
  {
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<h3>CBC Report for Wile. E. COYOTE (MRN: 23453) issued 3-Mar 2011 11:45</h3>\n\t\t\t<pre>\nTest                                     Units
Value      Reference Range\nHaemoglobin          g/L          176          135 - 180\nRed Cell Count
x10*12/L      5.9          4.2 - 6.0\nHaematocrit          0.55+        0.38 - 0.52\nMean Cell
Volume      fL          99+          80 - 98\nMean Cell Haemoglobin pg          36+          27 -
35\nPlatelet Count          x10*9/L      444          150 - 450\nWhite Cell Count          x10*9/L      4.6
4.0 - 11.0\nNeutrophils          %            20\nNeutrophils          x10*9/L      0.9---        2.0 - 7.5
\nLymphocytes          %            20\nLymphocytes          x10*9/L      0.9-          1.1 - 4.0
\nMonocytes          %            20\nMonocytes          x10*9/L      0.9           0.2 - 1.0
\nEosinophils          %            20\nEosinophils          x10*9/L      0.92++        0.04 - 0.40
\nBasophils          %            20\nBasophils          x10*9/L      0.92+++        <0.21\n          <
/pre>\n\t\t\t<p>Acme Laboratory, Inc signed: Dr Pete Pathologist</p>\n\t\t</div>"
    },
    "identifier": [{
      "system": "http://acme.com/lab/reports",
      "value": "6234400"
    }, {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "cb2b5fe2-aac2-450e-bdec-7898c706483a"
    }
  ]
}
```

```

    ],
    "status": "final",
    "category": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/v2-0074",
        "code": "LAB"
      }
    ]
  }
],
"code": {
  "coding": [{
    "system": "http://loinc.org",
    "code": "58410-4",
    "display": "Complete blood count (hemogram) panel - Blood by Automated count"
  }, {
    "code": "CBC",
    "display": "MASTER FULL BLOOD COUNT"
  }
],
  "text": "Complete Blood Count"
},
"subject": {
  "reference": "Patient/pat7"
},
"effectiveDateTime": "2011-03-05T08:30:00+11:00",
"issued": "2011-03-04T11:45:33+11:00"
}, {
  "fullUrl": "https://<datahub_server>/DiagnosticReport/2af38d40-6711-4736-9362-2ea3d655f36e",
  "resource": {
    "resourceType": "DiagnosticReport",
    "id": "2af38d40-6711-4736-9362-2ea3d655f36e",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-09-21T20:45:53.903+00:00",
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-lab"
      ]
    },
    "tag": [{
      "system": "tranzform-apim-request-ns",
      "code": "user-request-id",
      "display": "0dc99636-c4eb-4c1d-b833-1187ba9f76a4\t\t\t1"
    }
  ]
},
  "text": {
    "status": "generated",
    "div": "<div xmlns=\<http://www.w3.org/1999/xhtml>\>\n\t\t\t<h3>CBC Report for Wile. E. COYOTE (MRN: 23453) issued 3-Mar 2011 11:45</h3>\n\t\t\t<pre>\nTest
Units
Value Reference Range\nHaemoglobin g/L 176 135 - 180\nRed Cell Count
x10*12/L 5.9 4.2 - 6.0\nHaematocrit 0.55+ 0.38 - 0.52\nMean Cell
Volume fL 99+ 80 - 98\nMean Cell Haemoglobin pg 36+ 27 -
35\nPlatelet Count x10*9/L 444 150 - 450\nWhite Cell Count x10*9/L 4.6
4.0 - 11.0\nNeutrophils % 20\nNeutrophils x10*9/L 0.9--- 2.0 - 7.5
\nLymphocytes % 20\nLymphocytes x10*9/L 0.9- 1.1 - 4.0
\nMonocytes % 20\nMonocytes x10*9/L 0.9 0.2 - 1.0
\nEosinophils % 20\nEosinophils x10*9/L 0.92++ 0.04 - 0.40
\nBasophils % 20\nBasophils x10*9/L 0.92+++ <0.21\n <
/pre>\n\t\t\t<p>Acme Laboratory, Inc signed: Dr Pete Pathologist</p>\n\t\t\t</div>"
  }
},
  "identifier": [{
    "system": "http://acme.com/lab/reports",
    "value": "6234401"
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "2af38d40-6711-4736-9362-2ea3d655f36e"
  }
],
"status": "final",

```

```
    "category": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/v2-0074",
        "code": "LAB"
      }
    ]
  },
  "code": {
    "coding": [{
      "system": "http://loinc.org",
      "code": "58410-4",
      "display": "Complete blood count (hemogram) panel - Blood by Automated count"
    }, {
      "code": "CBC",
      "display": "MASTER FULL BLOOD COUNT"
    }
  ],
  "text": "Complete Blood Count"
},
"subject": {
  "reference": "Patient/pat7"
},
"effectiveDateTime": "2011-03-05T08:30:00+11:00",
"issued": "2011-03-04T11:45:33+11:00"
}
]
}
```

[base]/DiagnosticReport[/id]

```

[base]/DiagnosticReport[/id]

GET /DiagnosticReport/Drepingest0118

{
  "resourceType" : "DiagnosticReport",
  "id" : "Drepingest0118",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-07-20T16:04:48.504+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-lab"
    ],
    "tag" : [
      {
        "system" : "tranzform-apim-request-ns",
        "code" : "user-request-id",
        "display" : "5dcb878b-184b-46fd-8456-9b10f6d65c3f\t\t\t\t\t"
      }
    ]
  },
  "identifier" : [
    {
      "system" : "http://acme.com/lab/reports",
      "value" : "6234400"
    },
    {
      "use" : "official",
      "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value" : "Drepingest0118"
    }
  ],
  "status" : "final",
  "category" : [
    {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/v2-0074",
          "code" : "LAB"
        }
      ]
    }
  ],
  "code" : {
    "coding" : [
      {
        "system" : "http://loinc.org",
        "code" : "58410-3",
        "display" : "Completebloodcount (hemogram)panel-BloodbyAutomatedcount "
      },
      {
        "code" : "CBC",
        "display" : "MASTERFULLBLOODCOUNT"
      }
    ],
    "text" : "CompleteBloodCount"
  },
  "subject" : {
    "reference" : "Patient/Ptpingest0118"
  },
  "effectiveDateTime" : "2011-03-05T08:30:00+11:00",
  "issued" : "2011-03-04T11:45:33+11:00"
}

```

---

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---

# DiagnosticReport - Report and Note Exchange

---

## Use Case

A member accesses a mobile application and authorizes it to access their diagnostic reports related to their cardiac condition. The UI calls an external endpoint, which returns the diagnostic reports in an industry-standard format. The application translates the diagnostic report information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/DiagnosticReport?patient=[reference]
- GET [base]/DiagnosticReport?patient=[reference]&category={system}|[value]
- GET [base]/DiagnosticReport?patient=[reference]&code={system}|[value]
- GET [base]/DiagnosticReport?patient=[reference]&category={system}|[value]&date={gt|lt|ge|le}
- GET [base]/DiagnosticReport[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core DiagnosticReport Profile for Report and Note exchange](#)

## Error Codes

Definition of error codes



Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/DiagnosticReport?patient=[reference]

```
[base]/DiagnosticReport?patient=[reference]

GET /DiagnosticReport/?patient=Ptpingest0118

{
  "resourceType": "Bundle",
  "id": "75885f29-7c1b-4aec-ba66-e10cb40e000b",
  "meta": {
    "lastUpdated": "2022-04-06T18:38:04.592+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/DiagnosticReport/?patient=Ptpingest0118"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/DiagnosticReport/Drepingest0128",
      "resource": {
        "resourceType": "DiagnosticReport",
        "id": "Drepingest0128",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2021-07-20T16:04:48.515+00:00",
          "profile": [
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-note"
          ],
          "tag": [
```

```

        {
          "system" : "tranzform-apim-request-ns",
          "code" : "user-request-id",
          "display" : "5dcb878b-184b-46fd-8456-9b10f6d65c3f\t\t\t1"
        }
      ],
      "identifier" : [
        {
          "system" : "http://acme.com/lab/reports",
          "value" : "6234400"
        },
        {
          "use" : "official",
          "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value" : "Drepingest0128"
        }
      ],
      "status" : "final",
      "category" : [
        {
          "coding" : [
            {
              "system" : "http://loinc.org",
              "code" : "LP7839-6"
            }
          ]
        }
      ],
      "code" : {
        "coding" : [
          {
            "system" : "http://loinc.org",
            "code" : "58410-3",
            "display" : "Completebloodcount (hemogram)panel-BloodbyAutomatedcount"
          },
          {
            "code" : "CBC",
            "display" : "MASTERFULLBLOODCOUNT"
          }
        ],
        "text" : "CompleteBloodCount"
      },
      "subject" : {
        "reference" : "Patient/Ptppingest0118"
      },
      "effectiveDateTime" : "2011-03-05T08:30:00+11:00",
      "issued" : "2011-03-04T11:45:33+11:00"
    }
  ],
  {
    "fullUrl" : "https://<datahub_server>/DiagnosticReport/Drepingest0118",
    "resource" : {
      "resourceType" : "DiagnosticReport",
      "id" : "Drepingest0118",
      "meta" : {
        "versionId" : "1626754457332",
        "lastUpdated" : "2021-07-20T16:04:48.504+00:00",
        "profile" : [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-lab"
        ]
      },
      "tag" : [
        {
          "system" : "tranzform-apim-request-ns",
          "code" : "user-request-id",
          "display" : "5dcb878b-184b-46fd-8456-9b10f6d65c3f\t\t\t1"
        }
      ]
    }
  },
  "identifier" : [
    {

```

```

        "system" : "http://acme.com/lab/reports",
        "value" : "6234400"
      },
      {
        "use" : "official",
        "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value" : "Drepingest0118"
      }
    ],
    "status" : "final",
    "category" : [
      {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/v2-0074",
            "code" : "LAB"
          }
        ]
      }
    ],
    "code" : {
      "coding" : [
        {
          "system" : "http://loinc.org",
          "code" : "58410-3",
          "display" : "Completebloodcount(hemogram)panel-BloodbyAutomatedcount"
        },
        {
          "code" : "CBC",
          "display" : "MASTERFULLBLOODCOUNT"
        }
      ]
    },
    "text" : "CompleteBloodCount"
  },
  "subject" : {
    "reference" : "Patient/Ptpingest0118"
  },
  "effectiveDateTime" : "2011-03-05T08:30:00+11:00",
  "issued" : "2011-03-04T11:45:33+11:00"
}
]
}

```

[base]/DiagnosticReport?patient=[reference]&category={system}[[value]

```

[base]/DiagnosticReport?patient=[reference]&category={system}[[value]

GET /DiagnosticReport/?patient=Ptpingest0118&category=LP7839-6&_profile=http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-note

{
  "resourceType" : "Bundle",
  "id" : "7ba5ead2-2731-49ef-ade9-1ad4cb9e9567",
  "meta" : {
    "lastUpdated" : "2022-04-07T16:49:20.227+00:00"
  },
  "type" : "searchset",
  "total" : 1,
  "link" : [
    {
      "relation" : "self",
      "url" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/DiagnosticReport/?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%2FStructureDefinition%2Fus-core-diagnosticreport-note&category=LP7839-6&patient=Ptpingest0118"
    }
  ]
}

```

```

    ],
    "entry" : [
      {
        "fullUrl" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/DiagnosticReport/Drepingest0128",
        "resource" : {
          "resourceType" : "DiagnosticReport",
          "id" : "Drepingest0128",
          "meta" : {
            "versionId" : "1626754457332",
            "lastUpdated" : "2021-07-20T16:04:48.515+00:00",
            "profile" : [
              "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-note"
            ],
            "tag" : [
              {
                "system" : "tranzform-apim-request-ns",
                "code" : "user-request-id",
                "display" : "5dcb878b-184b-46fd-8456-9b10f6d65c3f\t\t\t1"
              }
            ]
          },
          "identifier" : [
            {
              "system" : "http://acme.com/lab/reports",
              "value" : "6234400"
            },
            {
              "use" : "official",
              "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
              "value" : "Drepingest0128"
            }
          ],
          "status" : "final",
          "category" : [
            {
              "coding" : [
                {
                  "system" : "http://loinc.org",
                  "code" : "LP7839-6"
                }
              ]
            }
          ],
          "code" : {
            "coding" : [
              {
                "system" : "http://loinc.org",
                "code" : "58410-3",
                "display" : "Completebloodcount (hemogram)panel-BloodbyAutomatedcount"
              },
              {
                "code" : "CBC",
                "display" : "MASTERFULLBLOODCOUNT"
              }
            ],
            "text" : "CompleteBloodCount"
          },
          "subject" : {
            "reference" : "Patient/Ptpingest0118"
          },
          "effectiveDateTime" : "2011-03-05T08:30:00+11:00",
          "issued" : "2011-03-04T11:45:33+11:00"
        }
      }
    ]
  }
}

```

[base]/DiagnosticReport?patient=[reference]&code={system}][value]

```
[base]/DiagnosticReport?patient=[reference]&code={system}][value]

GET /DiagnosticReport/?patient=Ptpingest0118&code=CBC&_profile=http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-note

{
  "resourceType": "Bundle",
  "id": "0aa506e9-3b87-4a24-bd76-25c32c833a99",
  "meta": {
    "lastUpdated": "2022-04-06T18:40:31.028+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub-server>/DiagnosticReport/?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%2FStructureDefinition%2Fus-core-diagnosticreport-note&code=CBC&patient=Ptpingest0118"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub-server>/DiagnosticReport/Drepingest0128",
      "resource": {
        "resourceType": "DiagnosticReport",
        "id": "Drepingest0128",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2021-07-20T16:04:48.515+00:00",
          "profile": [
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-note"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "5dcb878b-184b-46fd-8456-9b10f6d65c3f\t\t\t1"
            }
          ]
        },
        "identifier": [
          {
            "system": "http://acme.com/lab/reports",
            "value": "6234400"
          },
          {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "Drepingest0128"
          }
        ],
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://loinc.org",
                "code": "LP7839-6"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {

```

```

        "system" : "http://loinc.org",
        "code" : "58410-3",
        "display" : "Completebloodcount(hemogram)panel-BloodbyAutomatedcount"
      },
      {
        "code" : "CBC",
        "display" : "MASTERFULLBLOODCOUNT"
      }
    ],
    "text" : "CompleteBloodCount"
  },
  "subject" : {
    "reference" : "Patient/Ptpingest0118"
  },
  "effectiveDateTime" : "2011-03-05T08:30:00+11:00",
  "issued" : "2011-03-04T11:45:33+11:00"
}
]
}
}

```

[base]/DiagnosticReport?patient=[reference]&category={system}[[value]&date={gt|lt|ge|le}

```

[base]/DiagnosticReport?patient=[reference]&category={system}[[value]&date={gt|lt|ge|le}

GET /DiagnosticReport/?patient=Ptpingest0118&category=http://loinc.org|LP7839-6&date=le2011-03-05

{
  "resourceType" : "Bundle",
  "id" : "baa87994-f01e-4a2e-8f73-7fa3fc9f827c",
  "meta" : {
    "lastUpdated" : "2022-04-06T18:43:02.375+00:00"
  },
  "type" : "searchset",
  "total" : 1,
  "link" : [
    {
      "relation" : "self",
      "url" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/DiagnosticReport/?
category=http%3A%2F%2Floinc.org%7CLP7839-6&date=le2011-03-05&patient=Ptpingest0118"
    }
  ],
  "entry" : [
    {
      "fullUrl" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/DiagnosticReport
/Drepingest0128",
      "resource" : {
        "resourceType" : "DiagnosticReport",
        "id" : "Drepingest0128",
        "meta" : {
          "versionId" : "1626754457332",
          "lastUpdated" : "2021-07-20T16:04:48.515+00:00",
          "profile" : [
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-note"
          ],
          "tag" : [
            {
              "system" : "tranzform-apim-request-ns",
              "code" : "user-request-id",
              "display" : "5dcb878b-184b-46fd-8456-9b10f6d65c3f\t\t\t1"
            }
          ]
        },
        "identifier" : [
          {

```

```
        "system" : "http://acme.com/lab/reports",
        "value" : "6234400"
      },
      {
        "use" : "official",
        "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value" : "Drepingest0128"
      }
    ],
    "status" : "final",
    "category" : [
      {
        "coding" : [
          {
            "system" : "http://loinc.org",
            "code" : "LP7839-6"
          }
        ]
      }
    ],
    "code" : {
      "coding" : [
        {
          "system" : "http://loinc.org",
          "code" : "58410-3",
          "display" : "Completebloodcount(hemogram)panel-BloodbyAutomatedcount"
        },
        {
          "code" : "CBC",
          "display" : "MASTERFULLBLOODCOUNT"
        }
      ]
    },
    "text" : "CompleteBloodCount"
  },
  "subject" : {
    "reference" : "Patient/Ptpingest0118"
  },
  "effectiveDateTime" : "2011-03-05T08:30:00+11:00",
  "issued" : "2011-03-04T11:45:33+11:00"
}
]
}
```

[base]/DiagnosticReport[/id]





---

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# DocumentReference

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## Use Case

A member has recently had an outpatient procedure performed. They want to review what the clinic told them about what activities they could do. The member accesses a mobile application which calls an external endpoint to gather the information the provider entered about their activity level after the procedure. The external endpoint returns the information in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/DocumentReference/{id}
- GET [base]/DocumentReference?\_id={logicalid}
- GET [base]/DocumentReference?patient=[reference]
- GET [base]/DocumentReference?patient=[reference]&category={system}][value]
- GET [base]/DocumentReference?patient=[reference]&category={system}][value]&date={gt|lt|ge|le}[date]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core DocumentReference Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/DocumentReference/[id]

```
[base]/DocumentReference/[id]
GET /DocumentReference/1990

{
  "resourceType": "Bundle",
  "id": "79c24d36-872d-4dc0-ac80-907178daa522",
  "meta": {
    "lastUpdated": "2021-01-26T19:17:46.778+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/DocumentReference?_id=1990"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/DocumentReference/1990",
      "resource": {
        "resourceType": "DocumentReference",
        "id": "1990",
        "meta": {
          "profile": [
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
          ]
        },
        "text": {
          "status": "generated",
```

```

        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b><
/p><p><b>id</b>: episode-summary</p><p><b>meta</b>: </p><p><b>identifier</b>: urn:oid:
2.16.840.1.113883.19.5.99999.1</p><p><b>status</b>: current</p><p><b>type</b>: <span title=\"Codes:
{http://loinc.org 34133-9}\">CCD Document</span></p><p><b>category</b>: <span title=\"Codes: {http://hl7.org
/fhir/us/core/CodeSystem/us-core-documentreference-category clinical-note}\">Clinical Note</span><
/p><p><b>subject</b>: <a href=\"Patient-example.html\">Amy Shaw. Generated Summary: id: example; Medical
Record Number = 1032702 (USUAL); active; Amy V. Shaw , Amy V. Baxter ; ph: 555-555-5555(HOME), amy.
shaw@example.com; gender: female; birthDate: 1987-02-20</a></p><p><b>date</b>: Mar 9, 2016, 3:29:46 PM<
/p><p><b>author</b>: <a href=\"Practitioner-practitioner-1.html\">Ronald Bone, MD. Generated Summary: id:
practitioner-1; 9941339108, 25456; Ronald Bone </a></p><p><b>description</b>: Pulmonology clinic acute
visit</p><h3>Contents</h3><table class=\"grid\"><tr><td>-</td><td><b>Attachment</b></td><td><b>Format</b><
/td></tr><tr><td>*</td><td></td><td><span title=\"{urn:oid:1.3.6.1.4.1.19376.1.2.3 urn:hl7-org:sdwg:ccda-
structuredBody:2.1}\">Documents following C-CDA constraints using a structured body</span></td></tr><
/table><h3>Contexts</h3><table class=\"grid\"><tr><td>-</td><td><b>Period</b></td></tr><tr><td>*<
/td><td>Dec 22, 2004, 9:00:00 PM --> Dec 22, 2004, 9:01:00 PM</td></tr></table></div>"
    },
    "identifier": [
      {
        "system": "urn:ietf:rfc:3986",
        "value": "urn:oid:2.16.840.1.113883.19.5.99999.1"
      }
    ],
    "status": "current",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "34133-9",
          "display": "Summary of episode note"
        }
      ],
      "text": "CCD Document"
    },
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
            "code": "clinical-note",
            "display": "Clinical Note"
          }
        ],
        "text": "Clinical Note"
      }
    ],
    "subject": {
      "reference": "Patient/07710040201",
      "display": "Amy Shaw"
    },
    "date": "2016-03-09T15:29:46Z",
    "author": [
      {
        "reference": "Practitioner-practitioner-1",
        "display": "Ronald Bone, MD"
      }
    ],
    "description": "Pulmonology clinic acute visit",
    "content": [
      {
        "attachment": {
          "contentType": "text/plain",
          "url": "/Binary/1-note",
          "title": "Uri where the data can be found: [base]/Binary/1-note"
        },
        "format": {
          "system": "urn:oid:1.3.6.1.4.1.19376.1.2.3",
          "code": "urn:hl7-org:sdwg:ccda-structuredBody:2.1",
          "display": "Documents following C-CDA constraints using a structured body"
        }
      }
    ]
  }
}

```

```

    ],
    "context": {
      "period": {
        "start": "2004-12-23T08:00:00+11:00",
        "end": "2004-12-23T08:01:00+11:00"
      }
    }
  }
}
]
}

```

## [base]/DocumentReference?\_id={logicalid}

```

[base]/DocumentReference?_[id]

GET /DocumentReference?_id=1990

{
  "resourceType": "Bundle",
  "id": "79c24d36-872d-4dc0-ac80-907178daa522",
  "meta": {
    "lastUpdated": "2021-01-26T19:17:46.778+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/DocumentReference?_id=1990"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/DocumentReference/1990",
      "resource": {
        "resourceType": "DocumentReference",
        "id": "1990",
        "meta": {
          "profile": [
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b></p><p><b>id</b>: episode-summary</p><p><b>meta</b>: </p><p><b>identifier</b>: urn:oid:2.16.840.1.113883.19.5.99999.1</p><p><b>status</b>: current</p><p><b>type</b>: <span title=\"Codes: {http://loinc.org 34133-9}\">CCD Document</span></p><p><b>category</b>: <span title=\"Codes: {http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category clinical-note}\">Clinical Note</span></p><p><b>subject</b>: <a href=\"Patient-example.html\">Amy Shaw. Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy V. Shaw , Amy V. Baxter ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 1987-02-20</a></p><p><b>date</b>: Mar 9, 2016, 3:29:46 PM</p><p><b>author</b>: <a href=\"Practitioner-practitioner-1.html\">Ronald Bone, MD. Generated Summary: id: practitioner-1; 9941339108, 25456; Ronald Bone </a></p><p><b>description</b>: Pulmonology clinic acute visit</p><h3>Contents</h3><table class=\"grid\"><tr><td></td><td><b>Attachment</b></td><td><b>Format</b></td></tr><tr><td>*</td><td></td><td><span title=\"{urn:oid:1.3.6.1.4.1.19376.1.2.3 urn:hl7-org:sdwg:ccda-structuredBody:2.1}\">Documents following C-CDA constraints using a structured body</span></td></tr></table><h3>Contexts</h3><table class=\"grid\"><tr><td></td><td><b>Period</b></td></tr><tr><td>*</td><td>Dec 22, 2004, 9:00:00 PM --> Dec 22, 2004, 9:01:00 PM</td></tr></table></div>"
        },
        "identifier": [
          {
            "system": "urn:ietf:rfc:3986",
            "value": "urn:oid:2.16.840.1.113883.19.5.99999.1"
          }
        ]
      }
    ]
  ],

```

```

        "status": "current",
        "type": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "34133-9",
              "display": "Summary of episode note"
            }
          ],
          "text": "CCD Document"
        },
        "category": [
          {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
                "code": "clinical-note",
                "display": "Clinical Note"
              }
            ],
            "text": "Clinical Note"
          }
        ],
        "subject": {
          "reference": "Patient/07710040201",
          "display": "Amy Shaw"
        },
        "date": "2016-03-09T15:29:46Z",
        "author": [
          {
            "reference": "Practitioner-practitioner-1",
            "display": "Ronald Bone, MD"
          }
        ],
        "description": "Pulmonology clinic acute visit",
        "content": [
          {
            "attachment": {
              "contentType": "text/plain",
              "url": "/Binary/1-note",
              "title": "Uri where the data can be found: [base]/Binary/1-note"
            },
            "format": {
              "system": "urn:oid:1.3.6.1.4.1.19376.1.2.3",
              "code": "urn:hl7-org:sdwg:ccda-structuredBody:2.1",
              "display": "Documents following C-CDA constraints using a structured body"
            }
          }
        ],
        "context": {
          "period": {
            "start": "2004-12-23T08:00:00+11:00",
            "end": "2004-12-23T08:01:00+11:00"
          }
        }
      }
    ]
  }
}

```

[base]/DocumentReference?patient=[reference]

```
[base]/DocumentReference?patient=[reference]
```

```
GET /DocumentReference?patient=07710040201
```

```

{
  "resourceType": "Bundle",
  "id": "dddf2a59-5ea4-4d29-bcb0-5357ae6c85b6",
  "meta": {
    "lastUpdated": "2021-01-26T19:20:46.672+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/DocumentReference?patient=07710040201"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/DocumentReference/1990",
      "resource": {
        "resourceType": "DocumentReference",
        "id": "1990",
        "meta": {
          "profile": [
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b></p><p><b>id</b>: episode-summary</p><p><b>meta</b>: </p><p><b>identifier</b>: urn:oid:2.16.840.1.113883.19.5.99999.1</p><p><b>status</b>: current</p><p><b>type</b>: <span title=\"Codes: {http://loinc.org 34133-9}\">CCD Document</span></p><p><b>category</b>: <span title=\"Codes: {http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category clinical-note}\">Clinical Note</span></p><p><b>subject</b>: <a href=\"Patient-example.html\">Amy Shaw. Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy V. Shaw , Amy V. Baxter ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 1987-02-20</a></p><p><b>date</b>: Mar 9, 2016, 3:29:46 PM</p><p><b>author</b>: <a href=\"Practitioner-practitioner-1.html\">Ronald Bone, MD. Generated Summary: id: practitioner-1; 9941339108, 25456; Ronald Bone </a></p><p><b>description</b>: Pulmonology clinic acute visit</p><h3>Contents</h3><table class=\"grid\"><tr><td></td><td><b>Attachment</b></td><td><b>Format</b></td></tr><tr><td>*</td><td><span title=\"{urn:oid:1.3.6.1.4.1.19376.1.2.3 urn:hl7-org:sdwg:ccda-structuredBody:2.1}\">Documents following C-CDA constraints using a structured body</span></td></tr></table><h3>Contexts</h3><table class=\"grid\"><tr><td></td><td><b>Period</b></td></tr><tr><td>*</td><td>Dec 22, 2004, 9:00:00 PM --> Dec 22, 2004, 9:01:00 PM</td></tr></table></div>"
        },
        "identifier": [
          {
            "system": "urn:ietf:rfc:3986",
            "value": "urn:oid:2.16.840.1.113883.19.5.99999.1"
          }
        ],
        "status": "current",
        "type": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "34133-9",
              "display": "Summary of episode note"
            }
          ]
        },
        "text": "CCD Document"
      },
      "category": [
        {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
              "code": "clinical-note",
              "display": "Clinical Note"
            }
          ]
        },
        {
          "text": "Clinical Note"
        }
      ]
    }
  ]
}

```

```

    },
    "subject": {
      "reference": "Patient/07710040201",
      "display": "Amy Shaw"
    },
    "date": "2016-03-09T15:29:46Z",
    "author": [
      {
        "reference": "Practitioner-practitioner-1",
        "display": "Ronald Bone, MD"
      }
    ],
    "description": "Pulmonology clinic acute visit",
    "content": [
      {
        "attachment": {
          "contentType": "text/plain",
          "url": "/Binary/1-note",
          "title": "Uri where the data can be found: [base]/Binary/1-note"
        },
        "format": {
          "system": "urn:oid:1.3.6.1.4.1.19376.1.2.3",
          "code": "urn:hl7-org:sdwg:ccda-structuredBody:2.1",
          "display": "Documents following C-CDA constraints using a structured body"
        }
      }
    ],
    "context": {
      "period": {
        "start": "2004-12-23T08:00:00+11:00",
        "end": "2004-12-23T08:01:00+11:00"
      }
    }
  }
}
]
}

```

[base]/DocumentReference?patient=[reference]&category={system}|[value]

```

[base]/DocumentReference?patient=[reference]&category=http://hl7.org/fhir/us/core/CodeSystem/us-core-
documentreference-category|clinical-note

GET /DocumentReference?patient=07710040201&category=http://hl7.org/fhir/us/core/CodeSystem/us-core-
documentreference-category|clinical-note

{
  "resourceType": "Bundle",
  "id": "ddd2a59-5ea4-4d29-bcb0-5357ae6c85b6",
  "meta": {
    "lastUpdated": "2021-01-26T19:20:46.672+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/DocumentReference?patient=07710040201"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/DocumentReference/1990",
      "resource": {
        "resourceType": "DocumentReference",
        "id": "1990",

```



```

"meta": {
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
  ]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b></p><p><b>id</b>: episode-summary</p><p><b>meta</b>: </p><p><b>identifier</b>: urn:oid:2.16.840.1.113883.19.5.99999.1</p><p><b>status</b>: current</p><p><b>type</b>: <span title=\"Codes: {http://loinc.org 34133-9}\">CCD Document</span></p><p><b>category</b>: <span title=\"Codes: {http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category clinical-note}\">Clinical Note</span></p><p><b>subject</b>: <a href=\"Patient-example.html\">Amy Shaw. Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy V. Shaw , Amy V. Baxter ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 1987-02-20</a></p><p><b>date</b>: Mar 9, 2016, 3:29:46 PM</p><p><b>author</b>: <a href=\"Practitioner-practitioner-1.html\">Ronald Bone, MD. Generated Summary: id: practitioner-1; 9941339108, 25456; Ronald Bone </a></p><p><b>description</b>: Pulmonology clinic acute visit</p><h3>Contents</h3><table class=\"grid\"><tr><td></td><td><b>Attachment</b></td><td><b>Format</b></td></tr><tr><td>*</td><td></td><td><span title=\"{urn:oid:1.3.6.1.4.1.19376.1.2.3 urn:hl7-org:sdwg:ccda-structuredBody:2.1}\">Documents following C-CDA constraints using a structured body</span></td></tr></table><h3>Contexts</h3><table class=\"grid\"><tr><td></td><td><b>Period</b></td></tr><tr><td>*</td><td><td>Dec 22, 2004, 9:00:00 PM --> Dec 22, 2004, 9:01:00 PM</td></tr></table></div>"
},
"identifier": [
  {
    "system": "urn:ietf:rfc:3986",
    "value": "urn:oid:2.16.840.1.113883.19.5.99999.1"
  }
],
"status": "current",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "34133-9",
      "display": "Summary of episode note"
    }
  ],
  "text": "CCD Document"
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
        "display": "Clinical Note"
      }
    ],
    "text": "Clinical Note"
  }
],
"subject": {
  "reference": "Patient/07710040201",
  "display": "Amy Shaw"
},
"date": "2016-03-09T15:29:46Z",
"author": [
  {
    "reference": "Practitioner-practitioner-1",
    "display": "Ronald Bone, MD"
  }
],
"description": "Pulmonology clinic acute visit",
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "url": "/Binary/1-note",
      "title": "Uri where the data can be found: [base]/Binary/1-note"
    }
  }
]

```

```

        },
        "format": {
          "system": "urn:oid:1.3.6.1.4.1.19376.1.2.3",
          "code": "urn:hl7-org:sdwg:ccda-structuredBody:2.1",
          "display": "Documents following C-CDA constraints using a structured body"
        }
      ],
      "context": {
        "period": {
          "start": "2004-12-23T08:00:00+11:00",
          "end": "2004-12-23T08:01:00+11:00"
        }
      }
    }
  ]
}

```

[base]/DocumentReference?patient=[reference]&category={system}[[value]&date={gt|lt|ge|le}[date]

[base]/DocumentReference?patient=[reference]&category=http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category|clinical-note&date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}

GET /DocumentReference?patient=07710040201&category=http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category|clinical-note&date=ge2016-03-09

```

{
  "resourceType": "Bundle",
  "id": "dddf2a59-5ea4-4d29-bcb0-5357ae6c85b6",
  "meta": {
    "lastUpdated": "2021-01-26T19:20:46.672+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/DocumentReference?patient=07710040201"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/DocumentReference/1990",
      "resource": {
        "resourceType": "DocumentReference",
        "id": "1990",
        "meta": {
          "profile": [
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b></p><p><b>id</b>: episode-summary</p><p><b>meta</b>: </p><p><b>identifier</b>: urn:oid:2.16.840.1.113883.19.5.99999.1</p><p><b>status</b>: current</p><p><b>type</b>: <span title=\"Codes: {http://loinc.org 34133-9}\">CCD Document</span></p><p><b>category</b>: <span title=\"Codes: {http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category clinical-note}\">Clinical Note</span></p><p><b>subject</b>: <a href=\"Patient-example.html\">Amy Shaw. Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy V. Shaw , Amy V. Baxter ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 1987-02-20</a></p><p><b>date</b>: Mar 9, 2016, 3:29:46 PM</p><p><b>author</b>: <a href=\"Practitioner-practitioner-1.html\">Ronald Bone, MD. Generated Summary: id: practitioner-1; 9941339108, 25456; Ronald Bone </a></p><p><b>description</b>: Pulmonology clinic acute visit</p><h3>Contents</h3><table class=\"grid\"><tr><td></td><td><b>Attachment</b></td><td><b>Format</b></td></tr><tr><td>*</td><td><span title=\"{urn:oid:1.3.6.1.4.1.19376.1.2.3 urn:hl7-org:sdwg:ccda-structuredBody:2.1}\">Documents following C-CDA constraints using a structured body</span></td></tr></table></div></p></div>

```

```

/table><h3>Contexts</h3><table class=\"grid\"><tr><td>-</td><td><b>Period</b></td></tr><tr><td>*</td><td>Dec 22, 2004, 9:00:00 PM --> Dec 22, 2004, 9:01:00 PM</td></tr></table></div>
    },
    "identifier": [
      {
        "system": "urn:ietf:rfc:3986",
        "value": "urn:oid:2.16.840.1.113883.19.5.99999.1"
      }
    ],
    "status": "current",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "34133-9",
          "display": "Summary of episode note"
        }
      ],
      "text": "CCD Document"
    },
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-
category",
            "code": "clinical-note",
            "display": "Clinical Note"
          }
        ],
        "text": "Clinical Note"
      }
    ],
    "subject": {
      "reference": "Patient/07710040201",
      "display": "Amy Shaw"
    },
    "date": "2016-03-09T15:29:46Z",
    "author": [
      {
        "reference": "Practitioner-practitioner-1",
        "display": "Ronald Bone, MD"
      }
    ],
    "description": "Pulmonology clinic acute visit",
    "content": [
      {
        "attachment": {
          "contentType": "text/plain",
          "url": "/Binary/1-note",
          "title": "Uri where the data can be found: [base]/Binary/1-note"
        },
        "format": {
          "system": "urn:oid:1.3.6.1.4.1.19376.1.2.3",
          "code": "urn:hl7-org:sdwg:ccda-structuredBody:2.1",
          "display": "Documents following C-CDA constraints using a structured body"
        }
      }
    ],
    "context": {
      "period": {
        "start": "2004-12-23T08:00:00+11:00",
        "end": "2004-12-23T08:01:00+11:00"
      }
    }
  }
}

```

---

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# Drug Formulary - Coverage Plan

---

## Use Case

A member wants to see which drugs are covered by their health plan. The member accesses a mobile application which calls an external endpoint to retrieve the data. The endpoint returns the data in an industry-standard format, which is then translated by the mobile application to be viewed by the member.

## Supported GET Requests

 The **subject** query parameter can be equal to **Patient**, **Group**, and so on. Please refer to the definition of the **subject** parameter in [Drug Formulary - PDEX - Coverage Plan](#) for the complete list of resource references to which **subject** can be set.

See also: [Common Request Parameters](#)

- GET [base]/List?subject=[reference]
- GET [base]/List?identifier=[system]][value]
- GET [base]/List[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [Drug Formulary - PDEX - Coverage Plan](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/List?identifier=[system]][value] - DaVinci PDEX Plan Net

```
[base] / List ? identifier = [system] | [code]

GET /List?identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier|b72691c1-b182-4084-8aa3-f9205af1bbeb

{
  "resourceType": "Bundle",
  "id": "69ab3b50-b115-4305-b302-6d22a8077ea0",
  "meta": {
    "lastUpdated": "2021-01-25T00:56:36.681+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/List?identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier%7Cb72691c1-b182-4084-8aa3-f9205af1bbeb"
  }],
  "entry": [{
    "fullUrl": "https://<datahub_server>/List/b72691c1-b182-4084-8aa3-f9205af1bbeb",
    "resource": {
      "resourceType": "List",
      "id": "b72691c1-b182-4084-8aa3-f9205af1bbeb",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-10-06T05:31:54.720+00:00",
        "profile": ["http://hl7.org/fhir/StructureDefinition/ListResource"],
        "tag": [{
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "ed8ec297-f9df-4420-b345-a543d4e6ee7e\t\t\t1"
        }]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with Details</b>\n\t\t\t\t</p>\n\t\t\t\t</div>"
      },
      "identifier": [{
        "value": "HIOS-PLAN-ID"
      }], {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "b72691c1-b182-4084-8aa3-f9205af1bbeb"
      }
    ],
    "status": "current",
    "mode": "snapshot",
    "title": "Sample Gold Health Plan",
    "date": "2015-06-12",
    "entry": [{
      "item": {
        "reference": "MedicationKnowledge/formularydrugV1002"
      }
    }
  ]
}
]
```

[base]/List[/id]

```
[base]/List[/id]
```

```

GET /List/Listingest011

{
  "resourceType" : "List",
  "id" : "Listingest011",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2019-05-22T18:36:03.000+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-CoveragePlan"
    ]
  },
  "extension" : [
    {
      "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-DrugTierDefinition-
extension",
      "extension" : [
        {
          "url" : "drugTierID",
          "valueCodeableConcept" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
DrugTierCS",
                "code" : "generic",
                "display" : "Generic"
              }
            ]
          }
        },
        {
          "url" : "mailOrder",
          "valueBoolean" : true
        },
        {
          "url" : "costSharing",
          "extension" : [
            {
              "url" : "pharmacyType",
              "valueCodeableConcept" : {
                "coding" : [
                  {
                    "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
PharmacyTypeCS",
                    "code" : "1-month-in-retail",
                    "display" : "1 month in network retail"
                  }
                ]
              }
            }
          ]
        },
        {
          "url" : "copayAmount",
          "valueMoney" : {
            "value" : 0
          }
        },
        {
          "url" : "copayOption",
          "valueCodeableConcept" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
CopayOptionCS",
                "code" : "no-charge",
                "display" : "No Charge"
              }
            ]
          }
        }
      ]
    }
  ],
}

```



```

    {
      "url" : "coinsuranceRate",
      "valueDecimal" : 0
    },
    {
      "url" : "coinsuranceOption",
      "valueCodeableConcept" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
CoinsuranceOptionCS",
            "code" : "after-deductible",
            "display" : "After Deductible"
          }
        ]
      }
    }
  ],
  {
    "url" : "costSharing",
    "extension" : [
      {
        "url" : "pharmacyType",
        "valueCodeableConcept" : {
          "coding" : [
            {
              "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
PharmacyTypeCS",
              "code" : "1-month-out-retail",
              "display" : "1 month out of network retail"
            }
          ]
        }
      }
    ],
    {
      "url" : "copayAmount",
      "valueMoney" : {
        "value" : 0
      }
    },
    {
      "url" : "copayOption",
      "valueCodeableConcept" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
CopayOptionCS",
            "code" : "no-charge",
            "display" : "No Charge"
          }
        ]
      }
    }
  ],
  {
    "url" : "coinsuranceRate",
    "valueDecimal" : 0
  },
  {
    "url" : "coinsuranceOption",
    "valueCodeableConcept" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
CoinsuranceOptionCS",
          "code" : "after-deductible",
          "display" : "After Deductible"
        }
      ]
    }
  }
}

```

```

    ],
    {
      "url" : "costSharing",
      "extension" : [
        {
          "url" : "pharmacyType",
          "valueCodeableConcept" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
PharmacyTypeCS",
                "code" : "3-month-in-retail",
                "display" : "3 month in network retail"
              }
            ]
          }
        }
      ],
    },
    {
      "url" : "copayAmount",
      "valueMoney" : {
        "value" : 0
      }
    },
    {
      "url" : "copayOption",
      "valueCodeableConcept" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
CopayOptionCS",
            "code" : "no-charge",
            "display" : "No Charge"
          }
        ]
      }
    },
    {
      "url" : "coinsuranceRate",
      "valueDecimal" : 0
    },
    {
      "url" : "coinsuranceOption",
      "valueCodeableConcept" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
CoinsuranceOptionCS",
            "code" : "after-deductible",
            "display" : "After Deductible"
          }
        ]
      }
    }
  ],
  {
    "url" : "costSharing",
    "extension" : [
      {
        "url" : "pharmacyType",
        "valueCodeableConcept" : {
          "coding" : [
            {
              "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
PharmacyTypeCS",
              "code" : "3-month-out-retail",
              "display" : "3 month out of network retail"
            }
          ]
        }
      }
    ]
  }
}

```

```

    },
    {
      "url" : "copayAmount",
      "valueMoney" : {
        "value" : 0
      }
    },
    {
      "url" : "copayOption",
      "valueCodeableConcept" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
CopayOptionCS",
            "code" : "no-charge",
            "display" : "No Charge"
          }
        ]
      }
    },
    {
      "url" : "coinsuranceRate",
      "valueDecimal" : 0
    },
    {
      "url" : "coinsuranceOption",
      "valueCodeableConcept" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-
CoinsuranceOptionCS",
            "code" : "after-deductible",
            "display" : "After Deductible"
          }
        ]
      }
    }
  ]
},
{
  "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-Network-extension",
  "valueString" : "PREFERRED"
},
{
  "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-SummaryURL-
extension",
  "valueString" : "http://url/to/health/plan/information"
},
{
  "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-FormularyURL-
extension",
  "valueString" : "http://url/to/formulary/information"
},
{
  "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-EmailPlanContact-
extension",
  "valueString" : "Patrick.Breen@carefirst.com"
},
{
  "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-PlanIDType-
extension",
  "valueString" : "Listingest011"
}
],
"identifier" : [
  {
    "value" : "test"
  },
  {

```

```
        "use" : "official",
        "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value" : "Listingest011"
    }
},
"status" : "current",
"mode" : "snapshot",
"title" : "Sample Gold Health Plan",
"subject" : {
    "reference" : "Patient/Ptpingest0150"
},
"date" : "2015-06-12",
"entry" : [
    {
        "item" : {
            "reference" : "MedicationKnowledge/Mkingest011"
        }
    }
]
}
```

---

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# Drug Formulary - Formulary Drug

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## Use Case

A member is taking a drug for which their health plan will soon discontinue coverage. The member authorizes a mobile application to access their health plan information to see if there are alternative drugs that can replace the drug that they are currently taking. The application calls an external endpoint which retrieves the information in an industry-standard format. The application translates the data and presents it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/MedicationKnowledge?code=[system]][[value]
- GET [base]/MedicationKnowledge/[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [Drug Formulary - PDEX- Formulary Drug](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/MedicationKnowledge?code=[system] | [value]

```
[base] / MedicationKnowledge ? code = [system] | [value]

GET /MedicationKnowledge?code=http://www.nlm.nih.gov/research/umls/rxnorm|1049640&_profile=http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-FormularyDrug

{
  "resourceType": "Bundle",
  "id": "de869738-d0a8-448c-98a0-978335aa7a38",
  "meta": {
    "lastUpdated": "2021-01-25T01:01:55.611+00:00"
  },
  "type": "searchset",
  "total": 5,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/MedicationKnowledge?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-drug-formulary%2FStructureDefinition%2Fusdf-FormularyDrug&code=http%3A%2F%2Fwww.nlm.nih.gov%2Fresearch%2Fumls%2Frnorm%7C1049640"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=bad25279-afb1-5ae4-84ee-0f1df8bae983&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/MedicationKnowledge/10234727",
    "resource": {
      "resourceType": "MedicationKnowledge",
      "id": "10234727",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-
```

```

FormularyDrug"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: formularydrugV1002</p><p><b>meta</b>: </p><p><b>code</b>: Percocet 5 MG / 325
MG Oral Tablet <span style=\"background: LightGoldenRodYellow\">(Details : {RxNorm code '1049640' =
'Percocet 5 MG / 325 MG Oral Tablet', given as 'Percocet 5 MG / 325 MG Oral Tablet'})</span></p></div>"
    },
    "extension": [{
      "url": "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-
PriorAuthorization-extension",
      "valueBoolean": false
    }, {
      "url": "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-
StepTherapyLimit-extension",
      "valueBoolean": false
    }, {
      "url": "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-
QuantityLimit-extension",
      "valueBoolean": false
    }, {
      "url": "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-
PlanID-extension",
      "valueString": "40308VA0240008"
    }, {
      "url": "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-
DrugTierID-extension",
      "valueCodeableConcept": {
        "coding": [{
          "system": "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem
/usdf-DrugTierCS",
          "code": "brand",
          "display": "Brand"
        }
      ]
    }
  ],
  "code": {
    "coding": [{
      "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
      "code": "1049640",
      "display": "Percocet 5 MG / 325 MG Oral Tablet"
    }
  ]
}, {
  "fullUrl": "https://<datahub_server>/MedicationKnowledge/drugV1002",
  "resource": {
    "resourceType": "MedicationKnowledge",
    "id": "drugV1002",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-
FormularyDrug"]
    }
  },
  "text": {
    "status": "generated",
    "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: formularydrugV1002</p><p><b>meta</b>: </p><p><b>code</b>: Percocet 5 MG / 325
MG Oral Tablet <span style=\"background: LightGoldenRodYellow\">(Details : {RxNorm code '1049640' =
'Percocet 5 MG / 325 MG Oral Tablet', given as 'Percocet 5 MG / 325 MG Oral Tablet'})</span></p></div>"
  },
  "extension": [{
    "url": "http://hl7.org/fhir/us/Davinci-drug-formulary/StructureDefinition/usdf-
DrugTierID-extension",
    "valueCodeableConcept": {
      "coding": [{
        "system": "http://hl7.org/fhir/us/Davinci-drug-formulary/CodeSystem
/usdf-DrugTierCS",

```





```

    {
      "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-PriorAuthorization-
extension",
      "valueBoolean" : false
    },
    {
      "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-StepTherapyLimit-
extension",
      "valueBoolean" : false
    },
    {
      "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-QuantityLimit-
extension",
      "valueBoolean" : false
    },
    {
      "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-PlanID-extension",
      "valueString" : "40308VA0240008"
    },
    {
      "url" : "http://hl7.org/fhir/us/davinci-drug-formulary/StructureDefinition/usdf-DrugTierID-
extension",
      "valueCodeableConcept" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/davinci-drug-formulary/CodeSystem/usdf-DrugTierCS",
            "code" : "brand",
            "display" : "Brand"
          }
        ]
      }
    }
  ],
  "code" : {
    "coding" : [
      {
        "system" : "http://www.nlm.nih.gov/research/umls/rxnorm",
        "code" : "1049640",
        "display" : "Percocet 5 MG / 325 MG Oral Tablet"
      }
    ]
  }
}

```

---

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# Encounter

---

## Use Case

A member accesses a mobile application to find out information about their last visit with a particular doctor. The application UI calls an external endpoint which returns the encounter information in an industry standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Encounter[/id]
- GET [base]/Encounter?\_id=XXXXX
- GET [base]/Encounter?patient=[reference]
- GET [base]/Encounter?patient=[reference]&date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Encounter Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Encounter[/id]

```
[base] / Encounter[/id]

GET /Encounter/VN123

{
  "resourceType": "Bundle",
  "id": "eea47bc3-5844-4bbd-9f1f-199e1b0ee599",
  "meta": {
    "lastUpdated": "2021-01-26T00:21:47.075+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Encounter?_id=VN123"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Encounter/VN123",
    "resource": {
      "resourceType": "Encounter",
      "id": "VN123",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-10-19T03:18:48.380+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"]
      },
      "identifier": [{
        "system": "NYU:tenant4",
        "value": "VN123"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "VN123"
      }
    ],
    "status": "in-progress",
    "class": {
      "code": "IMP",
      "display": "Inpatient"
    },
    "type": [{
      "coding": [{
        "code": "183801001",
        "display": "Inpatient stay 3 days"
      }
    ]
  },
    "serviceType": {
      "coding": [{
        "code": "382",
        "display": "Medical Services"
      }
    ]
  },
    "subject": {
      "reference": "Patient/MR123"
    },
    "period": {
      "start": "2020-07-15"
    }
  }
]
}
```

thase1/Encounter? id=XXXXX

```
[base]/Encounter?_id=XXXXX
```

```
[base] / Encounter ? _id = XXXXX

GET    /Encounter?_id=VN123

{
  "resourceType": "Bundle",
  "id": "eea47bc3-5844-4bbd-9f1f-199e1b0ee599",
  "meta": {
    "lastUpdated": "2021-01-26T00:21:47.075+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Encounter?_id=VN123"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Encounter/VN123",
    "resource": {
      "resourceType": "Encounter",
      "id": "VN123",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-10-19T03:18:48.380+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"]
      },
      "identifier": [{
        "system": "NYU:tenant4",
        "value": "VN123"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "VN123"
      }
    ],
    "status": "in-progress",
    "class": {
      "code": "IMP",
      "display": "Inpatient"
    },
    "type": [{
      "coding": [{
        "code": "183801001",
        "display": "Inpatient stay 3 days"
      }
    ]
  }
],
    "serviceType": {
      "coding": [{
        "code": "382",
        "display": "Medical Services"
      }
    ]
  },
    "subject": {
      "reference": "Patient/MR123"
    },
    "period": {
      "start": "2020-07-15"
    }
  }
]
}
```

## [base]/Encounter?patient=[reference]

```

[base] / Encounter ? patient = [reference]

GET /Encounter?patient=MR123

{
  "resourceType": "Bundle",
  "id": "3c325bce-8700-4bb3-9782-ffb98c36ec07",
  "meta": {
    "lastUpdated": "2021-01-26T00:20:07.120+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Encounter?patient=MR123"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Encounter/VN123",
    "resource": {
      "resourceType": "Encounter",
      "id": "VN123",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-10-19T03:18:48.380+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"]
      },
      "identifier": [{
        "system": "NYU:tenant4",
        "value": "VN123"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "VN123"
      }
    ],
    "status": "in-progress",
    "class": {
      "code": "IMP",
      "display": "Inpatient"
    },
    "type": [{
      "coding": [{
        "code": "183801001",
        "display": "Inpatient stay 3 days"
      }
    ]
  },
    "serviceType": {
      "coding": [{
        "code": "382",
        "display": "Medical Services"
      }
    ]
  },
    "subject": {
      "reference": "Patient/MR123"
    },
    "period": {
      "start": "2020-07-15"
    }
  }
]
}

```

---

[base]/Encounter?patient=[reference]&date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

```
[base]/Encounter?patient=[reference]&date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

GET /Encounter?patient=MR123&date=ge2020-07-14

{
  "resourceType": "Bundle",
  "id": "25200241-b1ec-42b8-99fe-6f03353648ae",
  "meta": {
    "lastUpdated": "2021-01-26T00:27:11.304+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Encounter?date=ge2020-07-14&patient=MR123"
  }],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Encounter/VN123",
    "resource": {
      "resourceType": "Encounter",
      "id": "VN123",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-10-19T03:18:48.380+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"]
      },
      "identifier": [{
        "system": "NYU:tenant4",
        "value": "VN123"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "VN123"
      }
    ],
    "status": "in-progress",
    "class": {
      "code": "IMP",
      "display": "Inpatient"
    },
    "type": [{
      "coding": [{
        "code": "183801001",
        "display": "Inpatient stay 3 days"
      }
    ]
  }],
    "serviceType": {
      "coding": [{
        "code": "382",
        "display": "Medical Services"
      }
    ]
  },
    "subject": {
      "reference": "Patient/MR123"
    },
    "period": {
      "start": "2020-07-15"
    }
  }
}
}
```



---

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# Endpoint

## Use Case

The Endpoint resource contains the technical details of an endpoint. This can be used for electronic services, such as a web service that provides a REST endpoint for another FHIR HL7 server.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Name	Type	Description
<a href="#">connection-type</a>	token <sup>1</sup>	Select Endpoints that support the specified protocol/profile/standard
<a href="#">identifier-assigner</a>	reference	Select Endpoints with an identifier issued by the specified organization
<a href="#">identifier</a>	token	Select Endpoints with the specified identifier
<a href="#">mime-type</a>	token	Select endpoints that support the specified media type
<a href="#">organization</a>	reference	Select Endpoints managed by the specified organization
<a href="#">payload-type</a>	token	Select Endpoints that support the specified type of content
<a href="#">status</a>	token	Select Endpoints with the specified status
<a href="#">usecase-standard</a>	uri	Select endpoints that support the specified standard
<a href="#">usecase-type</a>	token	Select endpoints that support the type of services indicated by the specified code
<a href="#">via-intermediary</a>	reference	Select Endpoints with contact information available through the specified intermediary
<a href="#">telecom-available-days</a>	token	Days available
<a href="#">telecom-available-end-time</a>	token	End time
<a href="#">telecom-available-start-time</a>	token	Start time

1. A token refers to either [system][value] or [ value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Sample GET Requests

- GET [base]/Endpoint?identifier=[system][value]
- GET [base]/Endpoint?\_id=[logicalid]
- GET [base]/Endpoint?type=[system][value]
- GET [base]/Endpoint[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [Provider Directory - Pdex - Plan Net - Endpoint](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

# Sample Requests and Responses

[base]/Endpoint?identifier=[system][value]

```
[base] / Endpoint ? identifier = [system] | [value]

GET /Endpoint?identifier=http://terminology.hl7.org/CodeSystem/v2-0203|TAX&_profile=http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Endpoint

{
  "resourceType": "Bundle",
  "id": "a1763495-2210-417b-8598-f6400353e5bb",
  "meta": {
    "lastUpdated": "2021-01-25T01:06:06.971+00:00"
  },
  "type": "searchset",
  "total": 6,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Endpoint?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-Endpoint&identifier=http%3A%2F%2Fterminology.hl7.org%2FCodeSystem%2Fv2-0203%7CTAX"
    }, {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=b5fec903-3557-5faa-9b53-fba751f932b0&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Endpoint/End2002",
      "resource": {
        "resourceType": "Endpoint",
        "id": "End2002",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-12-16T13:45:16.603+05:30",
          "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Endpoint"],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "f133607a-f098-4ac9-9bbf-48ea9f9d0dd4\t\t\t4"
            }
          ]
        },
        "extension": [
          {
            "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/endpoint-usecase",
            "extension": [
              {
                "url": "type",
                "valueCodeableConcept": {
                  "coding": [
                    {
                      "system": "http://hl7.org/fhir/uv/vhdir/CodeSystem/usecase",
                      "code": "treatment",
                      "display": "treatment"
                    }
                  ],
                  "text": "treatment"
                }
              }, {
                "url": "standard",
                "valueUri": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/endpoint-usecase"
              }
            ]
          }
        ]
      }
    }
  ]
}
```

```

"identifier": [{
  "extension": [{
    "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/identifier-status",
    "valueCode": "active"
  }
],
  "use": "usual",
  "type": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
      "code": "TAX",
      "display": "Tax ID number"
    }
],
    "text": "587467"
  },
  "system": "http://www.acme.com/identifiers/patient",
  "value": "587467",
  "period": {
    "start": "2012-01-01T00:00:00+05:30",
    "end": "2017-01-01T00:00:00+05:30"
  }
}, {
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "End2002"
}
],
"status": "active",
"connectionType": {
  "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
  "code": "ihe-iid",
  "display": "IHE IID"
},
"name": "Channel",
"contact": [{
  "extension": [{
    "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/contactpoint-
availabletime",
    "extension": [{
      "url": "daysOfWeek",
      "valueCode": "mon"
    }, {
      "url": "daysOfWeek",
      "valueCode": "tue"
    }, {
      "url": "daysOfWeek",
      "valueCode": "wed"
    }, {
      "url": "daysOfWeek",
      "valueCode": "fri"
    }, {
      "url": "allDay",
      "valueBoolean": false
    }, {
      "url": "availableStartTime",
      "valueTime": "11:00:00"
    }, {
      "url": "availableEndTime",
      "valueTime": "20:00:00"
    }
]
}
]
},
"system": "phone",
"value": "9789065789",
"use": "work",
"rank": 1,
"period": {
  "start": "2012-01-01T00:00:00+05:30",
  "end": "2022-01-01T00:00:00+05:30"
}
}
]

```

```

    }
  ],
  "period": {
    "start": "2012-01-01T00:00:00+05:30",
    "end": "2021-12-11T00:00:00+05:30"
  },
  "payloadType": [{
    "coding": [{
      "system": "urn:oid:1.3.6.1.4.1.19376.1.2.3",
      "code": "urn:ihe:pcc:crc:2008",
      "display": "Cancer Registry Content (CRC)"
    }
    ],
    "text": "Cancer Registry Content (CRC)"
  }
  ],
  "payloadMimeType": ["application/postscript"],
  "address": "http://localhost:0000/service",
  "header": ["ChannelTypes"]
}, {
  "fullUrl": "https://<datahub_server>/Endpoint/End2004",
  "resource": {
    "resourceType": "Endpoint",
    "id": "End2004",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-12-17T06:33:58.811+05:30",
      "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Endpoint"],
      "tag": [{
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "1dcac57f-906c-4ee0-af78-5364bbdd89f4\t\t\t4"
      }
    ]
  },
  "extension": [{
    "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/endpoint-usecase",
    "extension": [{
      "url": "type",
      "valueCodeableConcept": {
        "coding": [{
          "system": "http://hl7.org/fhir/uv/vhdir/CodeSystem/usecase",
          "code": "treatment",
          "display": "treatment"
        }
        ],
        "text": "treatment"
      }
    }
  ], {
    "url": "standard",
    "valueUri": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/endpoint-
usecase"
  }
  ]
},
  "identifier": [{
    "use": "usual",
    "type": {
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
        "code": "TAX",
        "display": "Tax ID number"
      }
      ],
      "text": "587467"
    }
  ],
  "system": "http://www.acme.com/identifiers/patient",

```

```

        "value": "587467",
        "period": {
          "start": "2012-01-01T00:00:00+05:30",
          "end": "2017-01-01T00:00:00+05:30"
        }
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "End2004"
      }
    ],
    "status": "active",
    "connectionType": {
      "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
      "code": "ihe-iid",
      "display": "IHE IID"
    },
    "name": "Channel",
    "contact": [{
      "extension": [{
        "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/contactpoint-
availabletime",
        "extension": [{
          "url": "daysOfWeek",
          "valueCode": "mon"
        }, {
          "url": "daysOfWeek",
          "valueCode": "tue"
        }, {
          "url": "daysOfWeek",
          "valueCode": "wed"
        }, {
          "url": "daysOfWeek",
          "valueCode": "fri"
        }, {
          "url": "allDay",
          "valueBoolean": false
        }, {
          "url": "availableStartTime",
          "valueTime": "11:00:00"
        }, {
          "url": "availableEndTime",
          "valueTime": "20:00:00"
        }
      ]
    }
  ]
},
  "system": "phone",
  "value": "9789065789",
  "use": "work",
  "rank": 1,
  "period": {
    "start": "2012-01-01T00:00:00+05:30",
    "end": "2022-01-01T00:00:00+05:30"
  }
},
"period": {
  "start": "2012-01-01T00:00:00+05:30",
  "end": "2021-12-11T00:00:00+05:30"
},
"payloadType": [{
  "coding": [{
    "system": "urn:oid:1.3.6.1.4.1.19376.1.2.3",
    "code": "urn:ihe:pcc:crc:2008",
    "display": "Cancer Registry Content (CRC)"
  }
],
  "text": "Cancer Registry Content (CRC)"
}
],

```

```

        "payloadMimeType": ["application/postscript"],
        "address": "http://localhost:0000/service",
        "header": ["ChannelTypes"]
    }
}
]
}

```

## [base]/Endpoint?\_id=[logicalid]

```

[base] / Endpoint ? _id = [logicalid]

GET /Endpoint?_id=End2012&_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-pdex-plan-net%
2FStructureDefinition%2Fplannet-Endpoint"

{
  "resourceType": "Bundle",
  "id": "287242ed-9232-423a-ab3f-3e311b71bcf5",
  "meta": {
    "lastUpdated": "2021-01-25T01:10:07.965+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Endpoint?_id=End2012&_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-Endpoint"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Endpoint/End2012",
    "resource": {
      "resourceType": "Endpoint",
      "id": "End2012",
      "meta": {
        "versionId": "1626754499927",
        "lastUpdated": "2020-12-16T13:45:16.603+05:30",
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Endpoint"],
        "tag": [{
          "system": "http://terminology.hl7.org/CodeSystem/common-tags",
          "code": "user-request-id",
          "display": "8e60448d-e363-47a4-ac0b-134abca8f455\t\t\t4"
        }
      ]
    },
    "extension": [{
      "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/endpoint-usecase",
      "extension": [{
        "url": "type",
        "valueCodeableConcept": {
          "coding": [{
            "system": "http://hl7.org/fhir/uv/vhdir/CodeSystem/usecase",
            "code": "treatment",
            "display": "treatment"
          }
        ]
      }, {
        "text": "treatment"
      }
    ]
  }], {
    "url": "standard",
    "valueUri": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/endpoint-
usecase"
  }
]
}
],
}

```



```

"identifier": [{
  "extension": [{
    "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/identifier-status",
    "valueCode": "active"
  }
],
  "use": "usual",
  "type": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
      "code": "TAX",
      "display": "Tax ID number"
    }
],
    "text": "587467"
  },
  "system": "http://www.acme.com/identifiers/patient",
  "value": "587467",
  "period": {
    "start": "2012-01-01T00:00:00+05:30",
    "end": "2017-01-01T00:00:00+05:30"
  }
}, {
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "End2012"
}
],
"status": "active",
"connectionType": {
  "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
  "code": "ihe-iid",
  "display": "IHE IID"
},
"name": "Channel",
"contact": [{
  "extension": [{
    "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/contactpoint-
availabletime",
    "extension": [{
      "url": "daysOfWeek",
      "valueCode": "mon"
    }, {
      "url": "daysOfWeek",
      "valueCode": "tue"
    }, {
      "url": "daysOfWeek",
      "valueCode": "wed"
    }, {
      "url": "daysOfWeek",
      "valueCode": "fri"
    }, {
      "url": "allDay",
      "valueBoolean": false
    }, {
      "url": "availableStartTime",
      "valueTime": "11:00:00"
    }, {
      "url": "availableEndTime",
      "valueTime": "20:00:00"
    }
]
}
]
},
"system": "phone",
"value": "9789065789",
"use": "work",
"rank": 1,
"period": {
  "start": "2012-01-01T00:00:00+05:30",
  "end": "2022-01-01T00:00:00+05:30"
}
}

```

```

    }
  ],
  "period": {
    "start": "2012-01-01T00:00:00+05:30",
    "end": "2021-12-11T00:00:00+05:30"
  },
  "payloadType": [{
    "coding": [{
      "system": "urn:oid:1.3.6.1.4.1.19376.1.2.3",
      "code": "urn:ihe:pcc:crc:2008",
      "display": "Cancer Registry Content (CRC)"
    }
    ],
    "text": "Cancer Registry Content (CRC)"
  }
  ],
  "payloadMimeType": ["application/postscript"],
  "address": "http://localhost:0000/service",
  "header": ["ChannelTypes"]
}
]
}
}

```

### [base]/Endpoint[/id]

```

[base]/Endpoint[/id]

GET /Endpoint/EP2020Feb01

{
  "resourceType" : "Endpoint",
  "id" : "EP2020Feb01",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2020-08-07T13:26:22.0314215+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Endpoint"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "36b0d6cf-3c11-4671-98a3-79b7d6e631c8[1]"
      }
    ]
  },
  "language" : "en-US",
  "text" : {
    "status" : "extensions",
    "div" : "<div xmlns='http://www.w3.org/1999/xhtml'>\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with  
Details</b>\n\t\t\t</p>\n\t\t\t</div>"
  },
  "extension" : [
    {
      "url" : "http://hl7.org/fhir/uv/vhdir/StructureDefinition/endpoint-usecase",
      "extension" : [
        {
          "url" : "type",
          "valueCodeableConcept" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/uv/vhdir/CodeSystem/usecase",
                "code" : "treatment",
                "display" : "treatment"
              }
            ]
          }
        }
      ]
    }
  ]
}

```

```
    ]
  },
  {
    "url" : "standard",
    "valueUri" : "http://wiki.directproject.org/file/view/2011-03-09%20PDF%20-%20XDR%20and%20XDM%
20for%20Direct%20Messaging%20Specification_FINAL.pdf"
  }
]
},
"status" : "active",
"connectionType" : {
  "system" : "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
  "code" : "direct-project",
  "display" : "Direct Project"
},
"name" : "Endpoint for Acme of CT Portal",
"payloadType" : [
  {
    "coding" : [
      {
        "system" : "urn:oid:1.3.6.1.4.1.19376.1.2.3",
        "code" : "urn:ihe:pcc:xphr:2007",
        "display" : "HL7 CCD Document"
      }
    ]
  }
],
"payloadMimeType" : [
  "application/hl7-v3+xml"
],
"address" : "https://urlofportal.acmect.com"
}
```

---

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# ExplanationOfBenefit

## Use Case

A member downloads a mobile application and authorizes it to access their EOB data on the member's behalf (so they can view it). When the member loads the EOB screen in the mobile application UI, the application requests filtering criteria to limit the number of EOB's returned. The member can filter by Status, Date, and Claim ID to refine their search. The UI calls the external endpoint for the EOB. That call retrieves the EOB data and returns it in the industry-standard format . The EOB data is then translated by the mobile application for display to the member.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Name	Type	Description
<a href="#">service-date</a>	date	Select EOBs that have this date of service.  Can only be used with the Patient= query parameter.
<a href="#">type</a>	token <sup>1</sup>	Select EOBs based on the type of EOB. The following values are found in <b>type.coding.code</b> and can be:  <b>institutional</b>  <b>professional</b>  <b>pharmacy</b>  Can only be used with the Patient= query parameter.

1. A token refers to either [system][value] or [value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Supported GET Requests

- GET [base]/ExplanationOfBenefit?patient=[reference]
- GET [base]/ExplanationOfBenefit?patient=[reference]&status=XXXX
- GET [base]/ExplanationOfBenefit?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}

- GET [base]/ExplanationOfBenefit?identifier=[system]][value]
- GET [base]/ExplanationOfBenefit/[id]
- GET [base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]
- GET [base]/ExplanationOfBenefit?patient=[reference]&type=inpatient-facility

## Response Parameters

The response parameters for the GET method are as follows:

- [CARIN-BB ExplanationOfBenefit](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/ExplanationOfBenefit?identifier=[system]][value]

```
[base]/ExplanationOfBenefit?identifier=[system]][value]
```

```
GET /ExplanationOfBenefit?identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier|EOBV3
```

```
{
```

```

"resourceType": "Bundle",
"id": "25a3dd62-489c-4fed-b191-5c7a746c572d",
"meta": {
  "lastUpdated": "2021-01-27T21:16:15.780+00:00"
},
"type": "searchset",
"total": 1,
"link": [
  {
    "relation": "self",
    "url": "https://<datahub_server>/ExplanationOfBenefit?identifier=com.cognizant.tranzform.fhir.
identifiers.logical-identifier%7CEOBV3"
  }
],
"entry": [
  {
    "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/EOBV3",
    "resource": {
      "resourceType": "ExplanationOfBenefit",
      "id": "EOBV3",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2019-12-18T22:49:23.000-05:00",
        "profile": [
          "http://tzf.com/fhir/StructureDefinition/ExplainofBenefit"
        ],
        "tag": [
          {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "3c509ab4-c82b-4652-b96f-3e5afe2b287b\t\t\t1"
          }
        ]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
      },
      "identifier": [
        {
          "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
          "value": "4E93-BE91-EAC1977941A8"
        },
        {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "EOBV3"
        }
      ],
      "status": "active",
      "type": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
            "code": "professional-nonclinician",
            "display": "professional-nonclinician"
          }
        ]
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/Patient1"
      },
      "created": "2015-02-07T13:28:17-05:00",
      "enterer": {
        "reference": "PractitionerRole/PractitionerRole1"
      },
      "insurer": {
        "reference": "Organization/Org45"
      }
    }
  }
]

```

```

    },
    "provider": {
      "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
              "code": "clmrecvddate"
            }
          ]
        },
        "timingDate": "2017-04-12"
      }
    ],
    "insurance": [
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Coverage1"
        }
      }
    ],
    "adjudication": [
      {
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
              "code": "innetworkbenefitpaymentstatus"
            }
          ]
        }
      }
    ],
    "total": [
      {
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
              "code": "submittedamount"
            }
          ]
        },
        "amount": {
          "value": 9000
        }
      }
    ]
  }
}

```

### [base]/ExplanationOfBenefit/[id]

```
[base]/ExplanationOfBenefit/[id]
```

```
GET /ExplanationOfBenefit/19A676020400HL
```

```

{
  "resourceType": "ExplanationOfBenefit",
  "id": "19A676020400HL",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2021-04-29T16:06:56.2041398-04:00",
    "profile": [
      "http://hl7.org/fhir/us/car/StructureDefinition/car-in-bb-explanationofbenefit"
    ]
  },
  "identifier": [
    {
      "type": {
        "text": "PROFESSIONAL : PROFESSIONAL"
      },
      "system": "http://trizettohealth.com/ExplanationOfBenefit/ClaimId",
      "value": "19A676020400HL",
      "period": {
        "start": "2019-07-22T00:00:00-04:00",
        "end": "2019-07-22T00:00:00-04:00"
      }
    }
  ],
  "status": "active",
  "type": {
    "text": "PROFESSIONAL : PROFESSIONAL"
  },
  "subType": {
    "text": "PROFESSIONAL : PROFESSIONAL"
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/K8008814301FACETS",
    "type": "Patient"
  },
  "billablePeriod": {
    "start": "2019-07-22T00:00:00-04:00",
    "end": "2019-07-22T00:00:00-04:00"
  },
  "created": "2020-12-09T00:00:00-05:00",
  "insurer": {
    "reference": "Organization/100"
  },
  "provider": {
    "reference": "Organization/100"
  },
  "related": [
    {
      "claim": {
        "reference": "Claim/100"
      },
      "relationship": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/car/CodeSystem/car-in-bb-relatedclaimrelationship",
            "code": "prior",
            "display": "Prior claim"
          }
        ]
      },
      "text": "prior claim"
    }
  ],
  "payee": {
    "type": {
      "text": "P : Provider"
    },
    "party": {
      "reference": "100"
    }
  }
}

```



```

},
"outcome" : "complete",
"careTeam" : [
  {
    "sequence" : 1,
    "provider" : {
      "reference" : "PractitionerRole/100"
    },
    "responsible" : true,
    "role" : {
      "text" : "supervisor : supervisor"
    }
  }
],
"supportingInfo" : [
  {
    "sequence" : 1,
    "category" : {
      "text" : "discharge : discharge"
    },
    "code" : {
      "text" : "DEFAULT : DEFAULT"
    },
    "timingDate" : "2020-12-09",
    "valueBoolean" : true
  }
],
"insurance" : [
  {
    "focal" : false,
    "coverage" : {
      "reference" : "Coverage/102465020200101M"
    }
  },
  {
    "focal" : true,
    "coverage" : {
      "reference" : "Coverage/102465020200101M"
    }
  }
],
"item" : [
  {
    "sequence" : 1,
    "careTeamSequence" : [
      1
    ],
    "informationSequence" : [
      1
    ],
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
          "code" : "1",
          "display" : "Medical Care"
        }
      ],
      "text" : "Medical Care"
    },
    "productOrService" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/ex-USCLS",
          "code" : "1101",
          "display" : "Exam, comp, primary"
        }
      ],
      "text" : "Exam, comp, primary"
    },
    "modifier" : [

```

```

    {
      "text" : "X : None"
    }
  ],
  "servicedDate" : "2019-07-22",
  "locationCodeableConcept" : {
    "text" : "DEFAULT : DEFAULT"
  },
  "net" : {
    "value" : 0
  },
  "adjudication" : [
    {
      "category" : {
        "text" : "benefit : Benefit Amount"
      }
    }
  ],
  "detail" : [
    {
      "sequence" : 1,
      "productOrService" : {
        "text" : "DEFAULT : DEFAULT"
      },
      "adjudication" : [
        {
          "category" : {
            "text" : "benefit : Benefit Amount"
          }
        }
      ],
      "subDetail" : [
        {
          "sequence" : 1,
          "productOrService" : {
            "text" : "DEFAULT : DEFAULT"
          },
          "adjudication" : [
            {
              "category" : {
                "text" : "benefit : Benefit Amount"
              }
            }
          ]
        }
      ]
    }
  ]
},
],
"addItem" : [
  {
    "itemSequence" : [
      1
    ],
    "productOrService" : {
      "text" : "DEFAULT : DEFAULT"
    },
    "adjudication" : [
      {
        "category" : {
          "text" : "benefit : Benefit Amount"
        }
      }
    ],
    "detail" : [
      {
        "productOrService" : {
          "text" : "DEFAULT : DEFAULT"
        },
        "adjudication" : [

```

```

        {
          "category" : {
            "text" : "benefit : Benefit Amount"
          }
        }
      ],
      "subDetail" : [
        {
          "productOrService" : {
            "text" : "DEFAULT : DEFAULT"
          },
          "adjudication" : [
            {
              "category" : {
                "text" : "benefit : Benefit Amount"
              }
            }
          ]
        }
      ]
    }
  ]
},
"adjudication" : [
  {
    "category" : {
      "text" : "benefit : Benefit Amount"
    }
  }
],
"total" : [
  {
    "category" : {
      "text" : "benefit : Benefit Amount"
    },
    "amount" : {
      "value" : 314.58
    }
  }
],
"benefitBalance" : [
  {
    "category" : {
      "text" : "PROFESSIONAL : PROFESSIONAL"
    },
    "financial" : [
      {
        "type" : {
          "text" : "submitted : submitted"
        }
      },
      {
        "type" : {
          "coding" : [
            {
              "system" : "http://terminology.hl7.org/CodeSystem/benefit-type",
              "code" : "deductible",
              "display" : "Deductible"
            }
          ],
          "text" : "deductible"
        }
      }
    ]
  },
  {
    "type" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/benefit-type",
          "code" : "copay",
          "display" : "Copayment per service"
        }
      ]
    }
  }
]

```

```

    }
  ],
  "text" : "copay"
},
{
  "type" : {
    "text" : "eligible : eligible"
  }
},
{
  "type" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/benefit-type",
        "code" : "benefit",
        "display" : "Benefit"
      }
    ],
    "text" : "benefit"
  }
}
]
}
]
}

```

[base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

```

[base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

GET /ExplanationOfBenefit?patient=Ptpingest011&service-date=ge2015-08-24&service-date=le2019-10-09

{
  "resourceType": "Bundle",
  "id": "3eb35c6d-e485-4ef3-895b-f0364411ed43",
  "meta": {
    "lastUpdated": "2022-04-05T15:21:06.051+00:00"
  },
  "type": "searchset",
  "total": 4,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub-server>/ExplanationOfBenefit?patient=Ptpingest011&service-date=ge2015-08-24&service-date=le2019-10-09"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOB532114-3",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "EOB532114-3",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2021-08-01T00:32:24.1278731-06:00",
          "source": "TZF",
          "profile": [
            "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-inpatient-facility"
          ],
          "tag": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/common-tags",
              "code": "user-request-id",
              "display": "5b76d93e-c85d-4cc6-84a5-2bde88000ddb[1]"
            }
          ]
        }
      }
    }
  ]
}

```

```

        },
        {
            "code": "SecurityLabelStamped"
        }
    ]
},
"identifier": [
    {
        "use": "official",
        "type": {
            "text": "ClaimID"
        },
        "value": "EOBCLt01"
    }
],
"status": "cancelled",
"type": {
    "coding": [
        {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
            "code": "inpatient-facility",
            "display": "Inpatient Facility"
        }
    ]
},
"use": "claim",
"patient": {
    "reference": "Patient/Ptpingest011",
    "type": "Patient"
},
"billablePeriod": {
    "start": "2016-02-29T00:00:00-07:00",
    "end": "2016-02-29T00:00:00-07:00"
},
"created": "2017-03-09T00:00:00-07:00",
"enterer": {
    "reference": "Practitioner/e93beb55-2875-5e12-ba63-714487d42495"
},
"insurer": {
    "reference": "Organization/Orgingest011"
},
"provider": {
    "reference": "Organization/Orgingest011"
},
"priority": {
    "coding": [
        {
            "system": "http://terminology.hl7.org/CodeSystem/processpriority",
            "code": "normal",
            "display": "Normal"
        }
    ]
},
"outcome": "queued",
"careTeam": [
    {
        "sequence": 1,
        "provider": {
            "reference": "PractitionerRole/Pracroleingest011"
        },
        "role": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claimcareteamrole",
                    "code": "performing",
                    "display": "Servicing or Rendering provider"
                }
            ]
        }
    }
]
}

```

```

    ],
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/car/CodeSystem/car/claiminformationcategory",
              "code": "admissionperiod",
              "display": "Admission Period"
            }
          ]
        },
        "timingPeriod": {
          "start": "2016-02-29T00:00:00-07:00"
        }
      },
      {
        "sequence": 2,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/car/CodeSystem/car/claiminformationcategory",
              "code": "clmrecvddate",
              "display": "clmrecvddate"
            }
          ]
        },
        "timingDate": "2016-03-09"
      },
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/car/CodeSystem/car/claiminformationcategory",
              "code": "typeofbill",
              "display": "Type of Bill"
            }
          ]
        },
        "code": {
          "text": "77A1"
        }
      },
      {
        "sequence": 4,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/car/CodeSystem/car/claiminformationcategory",
              "code": "pointoforigin",
              "display": "Point Of Origin"
            }
          ]
        },
        "code": {
          "text": "9"
        }
      },
      {
        "sequence": 5,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/car/CodeSystem/car/claiminformationcategory",

```

```

        "code": "admtypes",
        "display": "admtypes"
      }
    ],
  },
  "code": {
    "coding": [
      {
        "system": "http://www.nubc.org/priority-type-of-admission-or-visit",
        "code": "9",
        "display": "admtypes"
      }
    ],
    "text": "9"
  }
},
{
  "sequence": 6,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-
claiminformationcategory",
        "code": "discharge-status",
        "display": "discharge-status"
      }
    ],
  },
  "code": {
    "coding": [
      {
        "system": "http://www.nubc.org/patient-discharge",
        "code": "01",
        "display": "discharge-status"
      }
    ],
    "text": "01"
  }
},
],
"diagnosis": [
  {
    "sequence": 1,
    "diagnosisCodeableConcept": {
      "text": "F1010"
    },
    "type": [
      {
        "text": "other"
      }
    ]
  },
  {
    "sequence": 2,
    "diagnosisCodeableConcept": {
      "text": "F331"
    },
    "type": [
      {
        "text": "other"
      }
    ]
  }
],
"insurance": [
  {
    "focal": false,
    "coverage": {
      "reference": "Coverage/Covingest011"
    }
  }
],

```

```

        {
          "focal": true,
          "coverage": {
            "reference": "Coverage/Covingest011"
          }
        }
      ],
      "item": [
        {
          "sequence": 1,
          "revenue": {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
                "code": "0450"
              }
            ]
          },
          "category": {
            "text": "medical"
          },
          "productOrService": {
            "coding": [
              {
                "system": "http://snomed.info/sct",
                "code": "712003",
                "display": "Closed chest suction"
              }
            ]
          },
          "servicedPeriod": {
            "start": "2016-02-29T00:00:00-07:00",
            "end": "2016-02-29T00:00:00-07:00"
          },
          "locationCodeableConcept": {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/ex-serviceplace",
                "code": "11",
                "display": "Office"
              }
            ]
          },
          "quantity": {
            "value": 1
          },
          "net": {
            "value": 188.66
          }
        }
      ],
      "total": [
        {
          "category": {
            "text": "eligible"
          },
          "amount": {
            "value": 189
          }
        }
      ]
    }
  ],
  {
    "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOB532114-1",
    "resource": {
      "resourceType": "ExplanationOfBenefit",
      "id": "EOB532114-1",
      "meta": {
        "versionId": "1626735459919",
        "lastUpdated": "2021-09-29T18:57:16.412+05:30",

```



```

        "source": "ODS",
        "profile": [
          "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-explanationofbenefit-
professional-nonclinician"
        ],
        "tag": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/common-tags",
            "code": "user-request-id",
            "display": "e47ecd03-7ea5-4cb6-8278-97a04678ab48[1]"
          },
          {
            "code": "SecurityLabelStamped"
          }
        ]
      },
      "identifier": [
        {
          "use": "official",
          "type": {
            "text": "Claim number"
          },
          "system": "http://Molinahealthcare.com/Claim",
          "value": "19316297955",
          "period": {
            "start": "2019-10-09T00:00:00+05:30",
            "end": "2019-10-09T00:00:00+05:30"
          }
        },
        {
          "use": "official",
          "type": {
            "text": "TBClaim Reference Number"
          },
          "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
          "value": "MOHPRF19AL383800",
          "period": {
            "start": "2019-10-09T00:00:00+05:30",
            "end": "2019-10-09T00:00:00+05:30"
          }
        },
        {
          "use": "official",
          "type": {
            "text": "PATIENT ACCOUNT NUMBER"
          },
          "system": "http://terminology.hl7.org/CodeSystem/v2-0204",
          "value": "MOHPRF19AL383800",
          "period": {
            "start": "2019-10-09T00:00:00+05:30",
            "end": "2019-10-09T00:00:00+05:30"
          }
        }
      ],
      "status": "active",
      "type": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
            "code": "professional-nonclinician",
            "display": "Professional or Non-Clinician"
          }
        ],
        "text": "Professional or Non-Clinician"
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/Ptpingest011",
        "type": "Patient"
      },
      "billablePeriod": {

```

```

        "start": "2019-10-09T00:00:00+05:30",
        "end": "2019-10-09T00:00:00+05:30"
    },
    "created": "2019-10-09T00:00:00+05:30",
    "enterer": {
        "reference": "ACME234505"
    },
    "insurer": {
        "reference": "Organization/ACME234505"
    },
    "provider": {
        "reference": "Organization/ACME234505"
    },
    "priority": {
        "coding": [
            {
                "system": "http://terminology.hl7.org/CodeSystem/processpriority",
                "code": "normal",
                "display": "Normal"
            }
        ]
    },
    "claim": {
        "reference": "Claim/CA-19316297955-MD"
    },
    "outcome": "complete",
    "supportingInfo": [
        {
            "sequence": 1,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
                        "code": "clmrecvddate",
                        "display": "clmrecvddate"
                    }
                ]
            },
            "text": "clmrecvddate"
        },
        {
            "timingDate": "2019-11-12"
        }
    ],
    "diagnosis": [
        {
            "sequence": 1,
            "diagnosisCodeableConcept": {
                "text": "R68.84 : Jaw pain"
            },
            "type": [
                {
                    "coding": [
                        {
                            "system": "http://snomed.info/sct",
                            "code": "principal",
                            "display": "principal"
                        }
                    ]
                }
            ]
        },
        {
            "sequence": 1,
            "diagnosisCodeableConcept": {
                "text": "R68.84 : Jaw pain"
            },
            "type": [
                {
                    "coding": [
                        {
                            "system": "http://snomed.info/sct",

```

```

        "code": "principal",
        "display": "principal"
      }
    ]
  },
  "procedure": [
    {
      "sequence": 1,
      "date": "2019-10-09T00:00:00+05:30",
      "procedureCodeableConcept": {
        "text": "70330 : RADEX TEMPOROMANDBLE JT OPN AND CLSD MOUTH BILAT"
      }
    }
  ],
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/CA-CMC150168119991-MD"
      }
    }
  ],
  "item": [
    {
      "sequence": 1,
      "productOrService": {
        "coding": [
          {
            "system": "urn:oid:2.16.840.1.113883.6.285",
            "code": "76937",
            "display": "US VASC ACCESS SITS VSL PATENCY NDL ENTRY"
          }
        ]
      },
      "servicedPeriod": {
        "start": "2019-10-09T00:00:00+05:30",
        "end": "2019-10-09T00:00:00+05:30"
      },
      "locationCodeableConcept": {
        "coding": [
          {
            "system": "https://www.cms.gov/Medicare/Coding/place-of-service-codes
/Place_of_Service_Code_Set",
            "code": "11",
            "display": "Office"
          }
        ]
      }
    }
  ],
  "adjudication": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-
adjudicationcategory",
            "code": "otherbenefitpaymentstatus",
            "display": "other benefit payment status"
          }
        ]
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [

```

```

        {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code": "paymentamount",
            "display": "payment amount"
        }
    ]
},
"amount": {
    "value": 0
}
}
]
},
{
    "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOBCLt04",
    "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "EOBCLt04",
        "meta": {
            "versionId": "1626754457332",
            "lastUpdated": "2021-08-01T00:32:24.1278821-06:00",
            "source": "TZF",
            "profile": [
                "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-explanationofbenefit-
outpatient-facility"
            ],
            "tag": [
                {
                    "system": "http://terminology.hl7.org/CodeSystem/common-tags",
                    "code": "user-request-id",
                    "display": "ef6ea0f8-d2f4-431b-ab08-e5f4e6c591e1[1]"
                },
                {
                    "code": "SecurityLabelStamped"
                }
            ]
        },
        "identifier": [
            {
                "use": "official",
                "type": {
                    "text": "ClaimID"
                },
                "value": "EOBCLt04"
            }
        ],
        "status": "active",
        "type": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
                    "code": "outpatient-facility",
                    "display": "Outpatient Facility"
                }
            ]
        },
        "use": "claim",
        "patient": {
            "reference": "Patient/Ptpingest011",
            "type": "Patient"
        },
        "billablePeriod": {
            "start": "2015-08-24T00:00:00-06:00",
            "end": "2015-08-24T00:00:00-06:00"
        },
        "created": "2017-01-13T00:00:00-07:00",
        "enterer": {
            "reference": "Practitioner/1847202b-c4de-5941-b852-3cc7ca638106"
        }
    },

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    "insurer": {
      "reference": "Organization/Orgingest011"
    },
    "provider": {
      "reference": "Organization/Orgingest011"
    },
    "priority": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/processpriority",
          "code": "normal",
          "display": "Normal"
        }
      ]
    },
    "related": [
      {
        "claim": {
          "reference": "Claim/Clmingest011"
        },
        "relationship": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
relatedclaimrelationship",
              "code": "prior",
              "display": "Prior claim"
            }
          ]
        },
        "reference": {
          "value": "20522053"
        }
      }
    ],
    "referral": {
      "reference": "ServiceRequest/"
    },
    "outcome": "complete",
    "careTeam": [
      {
        "sequence": 1,
        "provider": {
          "reference": "PractitionerRole/Pracroleingest011"
        },
        "role": {
          "coding": [
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              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claimcareteamrole",
              "code": "performing",
              "display": "Servicing or Rendering provider"
            }
          ]
        }
      }
    ],
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "typeofbill",
              "display": "Type of Bill"
            }
          ]
        },
        "code": {

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```

        "text": "0771"
      }
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    {
      "sequence": 2,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "billingnetworkcontractingstatus",
            "display": "billingnetworkcontractingstatus"
          }
        ]
      },
      "code": {
        "text": "I : contracted"
      }
    },
    {
      "sequence": 3,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "clmrecvddate",
            "display": "clmrecvddate"
          }
        ]
      },
      "timingDate": "2015-12-02"
    }
  ],
  "diagnosis": [
    {
      "sequence": 2,
      "diagnosisCodeableConcept": {
        "text": "2532"
      },
      "type": [
        {
          "text": "03"
        }
      ]
    },
    {
      "sequence": 3,
      "diagnosisCodeableConcept": {
        "text": "25000"
      },
      "type": [
        {
          "text": "01"
        }
      ]
    }
  ],
  {
    "sequence": 1,
    "diagnosisCodeableConcept": {
      "text": "4019"
    },
    "type": [
      {
        "text": "02"
      }
    ]
  }
],
"insurance": [
  {

```

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        "focal": false,
        "coverage": {
          "reference": "Coverage/Covingest011"
        }
      },
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Covingest011"
        }
      }
    ],
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        "diagnosisSequence": [
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        ],
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        },
        "productOrService": {
          "text": "83036"
        },
        "servicedPeriod": {
          "start": "2015-08-24T00:00:00-06:00",
          "end": "2015-08-24T00:00:00-06:00"
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        "quantity": {
          "value": 1
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        "net": {
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        "adjudication": [
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            "category": {
              "text": "allowedunits"
            },
            "value": 0
          },
          {
            "category": {
              "text": "copay"
            },
            "amount": {
              "value": 0
            }
          },
          {
            "category": {
              "text": "eligible"
            },
            "amount": {
              "value": 0
            }
          },
          {
            "category": {
              "text": "deductible"
            },
            "amount": {
              "value": 0
            }
          },
          {
            "category": {
              "text": "benefit"
            },
            "amount": {
              "value": 0
            }
          }
        ]
      }
    ]
  }
}

```

```
    },
    {
      "category": {
        "text": "coinsurance"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "noncovered"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "priorpayerpaid"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "paidtopatient"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "paidtoprovider"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "memberliability"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "discount"
      },
      "amount": {
        "value": 0
      }
    }
  ]
},
{
  "sequence": 1,
  "diagnosisSequence": [
    3
  ],
  "category": {
    "text": "M"
  },
  "productOrService": {
    "text": "99213"
  }
},
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"modifier": [
  {
    "text": "25"
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  "end": "2015-08-24T00:00:00-06:00"
},
"quantity": {
  "value": 1
},
"net": {
  "value": 137.68
},
"adjudication": [
  {
    "category": {
      "text": "allowedunits"
    },
    "value": 1
  },
  {
    "category": {
      "text": "copay"
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "eligible"
    },
    "amount": {
      "value": 137.68
    }
  },
  {
    "category": {
      "text": "deductible"
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "benefit"
    },
    "amount": {
      "value": 137.68
    }
  },
  {
    "category": {
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    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "noncovered"
    },
    "amount": {
      "value": 0
    }
  },
  {

```

```

        "category": {
          "text": "priorpayerpaid"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "paidtopatient"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "paidtoprovider"
        },
        "amount": {
          "value": 137.68
        }
      },
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        "category": {
          "text": "memberliability"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "discount"
        },
        "amount": {
          "value": 0
        }
      }
    ]
  },
  {
    "sequence": 3,
    "diagnosisSequence": [
      3
    ],
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      "text": "M"
    },
    "productOrService": {
      "text": "96372"
    },
    "servicedPeriod": {
      "start": "2015-08-24T00:00:00-06:00",
      "end": "2015-08-24T00:00:00-06:00"
    },
    "quantity": {
      "value": 1
    },
    "net": {
      "value": 0
    },
    "adjudication": [
      {
        "category": {
          "text": "allowedunits"
        },
        "value": 0
      },
      {
        "category": {

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```
        "text": "copay"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "eligible"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "deductible"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "benefit"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "coinsurance"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "noncovered"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "priorpayerpaid"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "paidtopatient"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "paidtoprovider"
      },
      "amount": {
        "value": 0
      }
    }
  ],
  {
```

```
        "category": {
          "text": "memberliability"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "discount"
        },
        "amount": {
          "value": 0
        }
      }
    ]
  },
  {
    "sequence": 2,
    "diagnosisSequence": [
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    ],
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      "text": "M"
    },
    "productOrService": {
      "text": "J1071"
    },
    "servicedPeriod": {
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      "end": "2015-08-24T00:00:00-06:00"
    },
    "quantity": {
      "value": 200
    },
    "net": {
      "value": 0
    },
    "adjudication": [
      {
        "category": {
          "text": "allowedunits"
        },
        "value": 0
      },
      {
        "category": {
          "text": "copay"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "eligible"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "deductible"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
```

```
        "text": "benefit"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "coinsurance"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "noncovered"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "priorpayerpaid"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "paidtopatient"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "paidtoprovider"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "memberliability"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "discount"
      },
      "amount": {
        "value": 0
      }
    }
  ]
},
"total": [
  {
    "category": {
      "text": "eligible"
    },
    "amount": {
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```

        "value": 138
      }
    },
    {
      "category": {
        "text": "benefit"
      },
      "amount": {
        "value": 138
      }
    },
    {
      "category": {
        "text": "paidtoprovider"
      },
      "amount": {
        "value": 138
      }
    }
  ],
  "payment": {
    "type": {
      "text": "paid"
    },
    "adjustment": {
      "value": 0
    },
    "date": "2016-01-17",
    "amount": {
      "value": 137.68
    },
    "identifier": {
      "value": "E"
    }
  }
},
{
  "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/Eobingest011",
  "resource": {
    "resourceType": "ExplanationOfBenefit",
    "id": "Eobingest011",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2021-07-20T23:36:02.393+00:00",
      "profile": [
        "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit"
      ],
      "tag": [
        {
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "b673c26a-fa75-44b6-a8cb-ccf2a19d35cc\t\t\t1"
        }
      ]
    },
    "identifier": [
      {
        "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
        "value": "4E93-BE91-EAC1977941A8"
      },
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "Eobingest011"
      }
    ],
    "status": "active",
    "type": {
      "coding": [

```

```

        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
          "code": "inpatient-facility",
          "display": "InpatientFacility"
        }
      ]
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Ptpingest011"
    },
    "billablePeriod": {
      "start": "2017-04-05",
      "end": "2017-04-14"
    },
    "created": "2017-04-15",
    "insurer": {
      "reference": "Organization/Orgingest011"
    },
    "provider": {
      "reference": "Organization/Orgingest011"
    },
    "outcome": "complete",
    "careTeam": [
      {
        "sequence": 1,
        "provider": {
          "reference": "Practitioner/Pracingest011"
        },
        "responsible": true,
        "role": {
          "coding": [
            {
              "code": "supervising",
              "display": "AttendingorSupervisingprovider"
            }
          ]
        }
      }
    ],
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "billingnetworkcontractingstatus"
            }
          ]
        }
      },
      {
        "sequence": 2,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "attendingnetworkcontractingstatus"
            }
          ]
        }
      },
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-

```

```

claiminformationcategory",
    "code": "clmrecvddate"
  }
  ],
},
"timingDate": "2017-04-12"
},
{
  "sequence": 4,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
        "code": "typeofservice"
      }
    ]
  }
},
{
  "sequence": 5,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
        "code": "tob-typeoffacility"
      }
    ]
  }
},
{
  "sequence": 6,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
        "code": "tob-billclassification"
      }
    ]
  }
},
{
  "sequence": 7,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
        "code": "tob-frequency"
      }
    ]
  }
},
{
  "sequence": 8,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
        "code": "admsrc"
      }
    ]
  }
},
],
"diagnosis": [
  {
    "sequence": 1,

```



```

      "diagnosisCodeableConcept": {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "A30.1",
            "display": "Tuberculoidleprosy"
          }
        ],
        "type": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/ex-diagnostype",
                "code": "principal",
                "display": "Principaldiagnosis"
              }
            ]
          }
        ]
      },
    ],
    "procedure": [
      {
        "sequence": 1,
        "type": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/ex-procedure-type",
                "code": "primary"
              }
            ]
          }
        ],
        "date": "2017-04-05",
        "procedureCodeableConcept": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/sid/ex-icd-10-procedures",
              "code": "3E00X28",
              "display": "Introduction of Oxazolidinones into Skin and Mucous
Membranes,ExternalApproach"
            }
          ]
        }
      }
    ],
    "item": [
      {
        "sequence": 1,
        "careTeamSequence": [
          1
        ],
        "diagnosisSequence": [
          2
        ],
        "procedureSequence": [
          1
        ],
        "informationSequence": [
          1
        ],
        "revenue": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
              "code": "0450"
            }
          ]
        }
      }
    ],
  ],
}

```

```
"category": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
      "code": "1",
      "display": "MedicalCare"
    }
  ]
},
"productOrService": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
      "code": "1101",
      "display": "Exam,comp,primary"
    }
  ]
},
"quantity": {
  "value": 6
},
"adjudication": [
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "submitted"
        }
      ]
    },
    "amount": {
      "value": 8000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "eligible"
        }
      ]
    },
    "amount": {
      "value": 8000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "deductible"
        }
      ]
    },
    "amount": {
      "value": 5000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "copay"
        }
      ]
    },
    "amount": {
```

```

        "value": 100
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "benefit"
          }
        ]
      },
      "amount": {
        "value": 2400
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "tax"
          }
        ]
      },
      "amount": {
        "value": 0
      }
    }
  ]
},
{
  "sequence": 2,
  "careTeamSequence": [
    1
  ],
  "diagnosisSequence": [
    2
  ],
  "procedureSequence": [
    1
  ],
  "informationSequence": [
    1
  ],
  "revenue": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
        "code": "0450"
      }
    ]
  },
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
        "code": "1",
        "display": "MedicalCare"
      }
    ]
  },
  "productOrService": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
        "code": "1101",
        "display": "Exam,comp,primary"
      }
    ]
  }
},

```

```

"quantity": {
  "value": 2
},
"adjudication": [
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "submitted"
        }
      ]
    },
    "amount": {
      "value": 750
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "eligible"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "deductible"
        }
      ]
    },
    "amount": {
      "value": 750
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "benefit"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "copay"
    },
    "amount": {
      "value": 750
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "tax"
        }
      ]
    }
  }
]

```

```

        ]
      },
      "amount": {
        "value": 0
      }
    ]
  },
  {
    "sequence": 3,
    "careTeamSequence": [
      1
    ],
    "diagnosisSequence": [
      2
    ],
    "procedureSequence": [
      1
    ],
    "informationSequence": [
      1
    ],
    "revenue": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
          "code": "0370"
        }
      ]
    },
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
          "code": "1",
          "display": "MedicalCare"
        }
      ]
    },
    "productOrService": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
          "code": "1205",
          "display": "Exam,emergency"
        }
      ]
    },
    "quantity": {
      "value": 2
    },
    "adjudication": [
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "submitted"
            }
          ]
        },
        "amount": {
          "value": 250
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "eligible"
            }
          ]
        }
      }
    ]
  }
}

```

```

    }
  ],
  },
  "amount": {
    "value": 0
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "deductible"
      }
    ]
  },
  "amount": {
    "value": 250
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "benefit"
      }
    ]
  },
  "amount": {
    "value": 0
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "copay"
      }
    ]
  },
  "amount": {
    "value": 250
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "tax"
      }
    ]
  },
  "amount": {
    "value": 0
  }
}
]
},
"adjudication": [
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "submitted"
        }
      ]
    }
  }
]

```

```

    },
    "amount": {
      "value": 9000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "eligible"
        }
      ]
    },
    "amount": {
      "value": 8000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "deductible"
        }
      ]
    },
    "amount": {
      "value": 5000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "copay"
        }
      ]
    },
    "amount": {
      "value": 100
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "benefit"
        }
      ]
    },
    "amount": {
      "value": 2400
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "tax"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  }
],

```

```

      "total": [
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "submittedamount"
              }
            ]
          },
          "amount": {
            "value": 9000
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "allowedamount"
              }
            ]
          },
          "amount": {
            "value": 8000
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "deductibleamount"
              }
            ]
          },
          "amount": {
            "value": 5000
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "coinsuranceamount"
              }
            ]
          },
          "amount": {
            "value": 80
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "copayamount"
              }
            ]
          },
          "amount": {
            "value": 100
          }
        }
      ],

```



```

    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code": "noncoveredamount"
          }
        ]
      },
      "amount": {
        "value": 1000
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code": "paymentamount"
          }
        ]
      },
      "amount": {
        "value": 2400
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code": "patientpayamount"
          }
        ]
      },
      "amount": {
        "value": 6600
      }
    }
  ],
  "payment": {
    "type": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-paymenttype",
          "code": "partial"
        }
      ]
    },
    "date": "2017-05-12"
  }
}

```

[base]/ExplanationOfBenefit?patient=[reference]&type=inpatient-facility

```

[base]/ExplanationOfBenefit?patient=[reference]&type=inpatient-facility

GET /ExplanationOfBenefit?patient=[reference]&type=inpatient-facility

{

```

```

"resourceType" : "Bundle",
"id" : "2130c1e1-543d-4443-856f-a446bee5b0aa",
"meta" : {
  "lastUpdated" : "2022-04-06T18:24:22.374+00:00"
},
"type" : "searchset",
"total" : 2,
"link" : [
  {
    "relation" : "self",
    "url" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/ExplanationOfBenefit?
patient=Ptpingest011&type=inpatient-facility"
  }
],
"entry" : [
  {
    "fullUrl" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/ExplanationOfBenefit
/EOB532114-3",
    "resource" : {
      "resourceType" : "ExplanationOfBenefit",
      "id" : "EOB532114-3",
      "meta" : {
        "versionId" : "1626754457332",
        "lastUpdated" : "2021-08-01T00:32:24.1278731-06:00",
        "source" : "TZF",
        "profile" : [
          "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-inpatient-
facility"
        ],
        "tag" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
            "code" : "user-request-id",
            "display" : "5b76d93e-c85d-4cc6-84a5-2bde88000ddb[1]"
          },
          {
            "code" : "SecurityLabelStamped"
          }
        ]
      },
      "identifier" : [
        {
          "use" : "official",
          "type" : {
            "text" : "ClaimID"
          },
          "value" : "EOBClt01"
        }
      ],
      "status" : "cancelled",
      "type" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
            "code" : "inpatient-facility",
            "display" : "Inpatient Facility"
          }
        ]
      },
      "use" : "claim",
      "patient" : {
        "reference" : "Patient/Ptpingest011",
        "type" : "Patient"
      },
      "billablePeriod" : {
        "start" : "2016-02-29T00:00:00-07:00",
        "end" : "2016-02-29T00:00:00-07:00"
      },
      "created" : "2017-03-09T00:00:00-07:00",
      "enterer" : {
        "reference" : "Practitioner/e93beb55-2875-5e12-ba63-714487d42495"
      }
    }
  }
]

```

```

    },
    "insurer" : {
      "reference" : "Organization/Orgingest011"
    },
    "provider" : {
      "reference" : "Organization/Orgingest011"
    },
    "priority" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/processpriority",
          "code" : "normal",
          "display" : "Normal"
        }
      ]
    },
    "outcome" : "queued",
    "careTeam" : [
      {
        "sequence" : 1,
        "provider" : {
          "reference" : "PractitionerRole/Pracroleingest011"
        },
        "role" : {
          "coding" : [
            {
              "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claimcareteamrole",
              "code" : "performing",
              "display" : "Servicing or Rendering provider"
            }
          ]
        }
      }
    ],
    "supportingInfo" : [
      {
        "sequence" : 1,
        "category" : {
          "coding" : [
            {
              "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
              "code" : "admissionperiod",
              "display" : "Admission Period"
            }
          ]
        },
        "timingPeriod" : {
          "start" : "2016-02-29T00:00:00-07:00"
        }
      },
      {
        "sequence" : 2,
        "category" : {
          "coding" : [
            {
              "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
              "code" : "clmrecvddate",
              "display" : "clmrecvddate"
            }
          ]
        },
        "timingDate" : "2016-03-09"
      },
      {
        "sequence" : 3,
        "category" : {
          "coding" : [
            {
              "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-

```

```

claiminformationcategory",
    "code" : "typeofbill",
    "display" : "Type of Bill"
  }
]
},
"code" : {
  "text" : "77A1"
}
},
{
  "sequence" : 4,
  "category" : {
    "coding" : [
      {
        "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
        "code" : "pointoforigin",
        "display" : "Point Of Origin"
      }
    ]
  },
  "code" : {
    "text" : "9"
  }
},
{
  "sequence" : 5,
  "category" : {
    "coding" : [
      {
        "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
        "code" : "admtpe",
        "display" : "admtpe"
      }
    ]
  },
  "code" : {
    "coding" : [
      {
        "system" : "http://www.nubc.org/priority-type-of-admission-or-visit",
        "code" : "9",
        "display" : "admtpe"
      }
    ],
    "text" : "9"
  }
},
{
  "sequence" : 6,
  "category" : {
    "coding" : [
      {
        "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
        "code" : "discharge-status",
        "display" : "discharge-status"
      }
    ]
  },
  "code" : {
    "coding" : [
      {
        "system" : "http://www.nubc.org/patient-discharge",
        "code" : "01",
        "display" : "discharge-status"
      }
    ],
    "text" : "01"
  }
}

```

```

    }
  ],
  "diagnosis" : [
    {
      "sequence" : 1,
      "diagnosisCodeableConcept" : {
        "text" : "F1010"
      },
      "type" : [
        {
          "text" : "other"
        }
      ]
    },
    {
      "sequence" : 2,
      "diagnosisCodeableConcept" : {
        "text" : "F331"
      },
      "type" : [
        {
          "text" : "other"
        }
      ]
    }
  ],
  "insurance" : [
    {
      "focal" : false,
      "coverage" : {
        "reference" : "Coverage/Covingest011"
      }
    },
    {
      "focal" : true,
      "coverage" : {
        "reference" : "Coverage/Covingest011"
      }
    }
  ],
  "item" : [
    {
      "sequence" : 1,
      "revenue" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
            "code" : "0450"
          }
        ]
      },
      "category" : {
        "text" : "medical"
      },
      "productOrService" : {
        "coding" : [
          {
            "system" : "http://snomed.info/sct",
            "code" : "712003",
            "display" : "Closed chest suction"
          }
        ]
      },
      "servicedPeriod" : {
        "start" : "2016-02-29T00:00:00-07:00",
        "end" : "2016-02-29T00:00:00-07:00"
      },
      "locationCodeableConcept" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/ex-serviceplace",

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```

        "code" : "11",
        "display" : "Office"
      }
    ]
  },
  "quantity" : {
    "value" : 1
  },
  "net" : {
    "value" : 188.66
  }
}
],
"total" : [
  {
    "category" : {
      "text" : "eligible"
    },
    "amount" : {
      "value" : 189
    }
  }
]
},
{
  "fullUrl" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/ExplanationOfBenefit/Eobingest011",
  "resource" : {
    "resourceType" : "ExplanationOfBenefit",
    "id" : "Eobingest011",
    "meta" : {
      "versionId" : "1626754457332",
      "lastUpdated" : "2021-07-20T23:36:02.393+00:00",
      "profile" : [
        "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-explanationofbenefit"
      ],
      "tag" : [
        {
          "system" : "tranzform-apim-request-ns",
          "code" : "user-request-id",
          "display" : "b673c26a-fa75-44b6-a8cb-ccf2a19d35cc\t\t\t1"
        }
      ]
    },
    "identifier" : [
      {
        "system" : "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-identifier",
        "value" : "4E93-BE91-EAC1977941A8"
      },
      {
        "use" : "official",
        "system" : "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value" : "Eobingest011"
      }
    ],
    "status" : "active",
    "type" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
          "code" : "inpatient-facility",
          "display" : "InpatientFacility"
        }
      ]
    },
    "use" : "claim",
    "patient" : {
      "reference" : "Patient/Ptpingest011"
    },
    "billablePeriod" : {

```

```

    "start" : "2017-04-05",
    "end" : "2017-04-14"
  },
  "created" : "2017-04-15",
  "insurer" : {
    "reference" : "Organization/Orgingest011"
  },
  "provider" : {
    "reference" : "Organization/Orgingest011"
  },
  "outcome" : "complete",
  "careTeam" : [
    {
      "sequence" : 1,
      "provider" : {
        "reference" : "Practitioner/Pracingest011"
      },
      "responsible" : true,
      "role" : {
        "coding" : [
          {
            "code" : "supervising",
            "display" : "AttendingorSupervisingprovider"
          }
        ]
      }
    }
  ],
  "supportingInfo" : [
    {
      "sequence" : 1,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
            "code" : "billingnetworkcontractingstatus"
          }
        ]
      }
    },
    {
      "sequence" : 2,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
            "code" : "attendingnetworkcontractingstatus"
          }
        ]
      }
    },
    {
      "sequence" : 3,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
            "code" : "clmrecvddate"
          }
        ]
      }
    }
  ],
  "timingDate" : "2017-04-12"
},
{
  "sequence" : 4,
  "category" : {
    "coding" : [
      {

```

```

        "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
        "code" : "typeofservice"
      }
    ]
  },
  {
    "sequence" : 5,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code" : "tob-typeoffacility"
        }
      ]
    }
  },
  {
    "sequence" : 6,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code" : "tob-billclassification"
        }
      ]
    }
  },
  {
    "sequence" : 7,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code" : "tob-frequency"
        }
      ]
    }
  },
  {
    "sequence" : 8,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code" : "admsrc"
        }
      ]
    }
  }
],
"diagnosis" : [
  {
    "sequence" : 1,
    "diagnosisCodeableConcept" : {
      "coding" : [
        {
          "system" : "http://snomed.info/sct",
          "code" : "A30.1",
          "display" : "Tuberculoidleprosy"
        }
      ]
    }
  },
  {
    "type" : [
      {
        "coding" : [

```



```

        {
          "system" : "http://terminology.hl7.org/CodeSystem/ex-diagnostype",
          "code" : "principal",
          "display" : "Principaldiagnosis"
        }
      ]
    }
  ],
  "procedure" : [
    {
      "sequence" : 1,
      "type" : [
        {
          "coding" : [
            {
              "system" : "http://terminology.hl7.org/CodeSystem/ex-procedure-type",
              "code" : "primary"
            }
          ]
        }
      ],
      "date" : "2017-04-05",
      "procedureCodeableConcept" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/sid/ex-icd-10-procedures",
            "code" : "3E00X28",
            "display" : "Introduction of Oxazolidinones into Skin and Mucous Membranes,
ExternalApproach"
          }
        ]
      }
    }
  ],
  "item" : [
    {
      "sequence" : 1,
      "careTeamSequence" : [
        1
      ],
      "diagnosisSequence" : [
        2
      ],
      "procedureSequence" : [
        1
      ],
      "informationSequence" : [
        1
      ],
      "revenue" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
            "code" : "0450"
          }
        ]
      },
      "category" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
            "code" : "1",
            "display" : "MedicalCare"
          }
        ]
      },
      "productOrService" : {
        "coding" : [
          {

```

```

        "system" : "http://terminology.hl7.org/CodeSystem/ex-USCLS",
        "code" : "1101",
        "display" : "Exam,comp,primary"
    }
  ]
},
"quantity" : {
  "value" : 6
},
"adjudication" : [
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "submitted"
        }
      ]
    },
    "amount" : {
      "value" : 8000
    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "eligible"
        }
      ]
    },
    "amount" : {
      "value" : 8000
    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "deductible"
        }
      ]
    },
    "amount" : {
      "value" : 5000
    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "copay"
        }
      ]
    },
    "amount" : {
      "value" : 100
    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "benefit"
        }
      ]
    }
  }
],
},

```

```

        "amount" : {
          "value" : 2400
        }
      },
      {
        "category" : {
          "coding" : [
            {
              "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
              "code" : "tax"
            }
          ]
        },
        "amount" : {
          "value" : 0
        }
      }
    ]
  },
  {
    "sequence" : 2,
    "careTeamSequence" : [
      1
    ],
    "diagnosisSequence" : [
      2
    ],
    "procedureSequence" : [
      1
    ],
    "informationSequence" : [
      1
    ],
    "revenue" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
          "code" : "0450"
        }
      ]
    },
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
          "code" : "1",
          "display" : "MedicalCare"
        }
      ]
    },
    "productOrService" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/ex-USCLS",
          "code" : "1101",
          "display" : "Exam,comp,primary"
        }
      ]
    },
    "quantity" : {
      "value" : 2
    },
    "adjudication" : [
      {
        "category" : {
          "coding" : [
            {
              "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
              "code" : "submitted"
            }
          ]
        }
      }
    ]
  }
]

```

```
    },
    "amount" : {
      "value" : 750
    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "eligible"
        }
      ]
    },
    "amount" : {
      "value" : 0
    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "deductible"
        }
      ]
    },
    "amount" : {
      "value" : 750
    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "benefit"
        }
      ]
    },
    "amount" : {
      "value" : 0
    }
  },
  {
    "category" : {
      "text" : "copay"
    },
    "amount" : {
      "value" : 750
    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "tax"
        }
      ]
    },
    "amount" : {
      "value" : 0
    }
  }
]
},
{
  "sequence" : 3,
  "careTeamSequence" : [
    1
```

```

    ],
    "diagnosisSequence" : [
      2
    ],
    "procedureSequence" : [
      1
    ],
    "informationSequence" : [
      1
    ],
    "revenue" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
          "code" : "0370"
        }
      ]
    },
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
          "code" : "1",
          "display" : "MedicalCare"
        }
      ]
    },
    "productOrService" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/ex-USCLS",
          "code" : "1205",
          "display" : "Exam,emergency"
        }
      ]
    },
    "quantity" : {
      "value" : 2
    },
    "adjudication" : [
      {
        "category" : {
          "coding" : [
            {
              "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
              "code" : "submitted"
            }
          ]
        },
        "amount" : {
          "value" : 250
        }
      },
      {
        "category" : {
          "coding" : [
            {
              "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
              "code" : "eligible"
            }
          ]
        },
        "amount" : {
          "value" : 0
        }
      },
      {
        "category" : {
          "coding" : [
            {
              "system" : "http://terminology.hl7.org/CodeSystem/adjudication",

```

```

        "code" : "deductible"
      }
    ]
  },
  "amount" : {
    "value" : 250
  }
},
{
  "category" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
        "code" : "benefit"
      }
    ]
  },
  "amount" : {
    "value" : 0
  }
},
{
  "category" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
        "code" : "copay"
      }
    ]
  },
  "amount" : {
    "value" : 250
  }
},
{
  "category" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
        "code" : "tax"
      }
    ]
  },
  "amount" : {
    "value" : 0
  }
}
]
},
],
"adjudication" : [
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "submitted"
        }
      ]
    },
    "amount" : {
      "value" : 9000
    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
          "code" : "eligible"
        }
      ]
    }
  }
]

```

```

    ]
  },
  "amount" : {
    "value" : 8000
  }
},
{
  "category" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
        "code" : "deductible"
      }
    ]
  },
  "amount" : {
    "value" : 5000
  }
},
{
  "category" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
        "code" : "copay"
      }
    ]
  },
  "amount" : {
    "value" : 100
  }
},
{
  "category" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
        "code" : "benefit"
      }
    ]
  },
  "amount" : {
    "value" : 2400
  }
},
{
  "category" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
        "code" : "tax"
      }
    ]
  },
  "amount" : {
    "value" : 0
  }
}
],
"total" : [
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code" : "submittedamount"
        }
      ]
    },
    "amount" : {

```

```

        "value" : 9000
      }
    },
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "allowedamount"
          }
        ]
      },
      "amount" : {
        "value" : 8000
      }
    },
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "deductibleamount"
          }
        ]
      },
      "amount" : {
        "value" : 5000
      }
    },
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "coinsuranceamount"
          }
        ]
      },
      "amount" : {
        "value" : 80
      }
    },
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "copayamount"
          }
        ]
      },
      "amount" : {
        "value" : 100
      }
    },
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "noncoveredamount"
          }
        ]
      },
      "amount" : {
        "value" : 1000
      }
    }
  ]
}

```



```

    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code" : "paymentamount"
        }
      ]
    },
    "amount" : {
      "value" : 2400
    }
  },
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code" : "patientpayamount"
        }
      ]
    },
    "amount" : {
      "value" : 6600
    }
  }
],
"payment" : {
  "type" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/ex-paymenttype",
        "code" : "partial"
      }
    ]
  },
  "date" : "2017-05-12"
}
}
]
}
}

```

---

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# ExplanationOfBenefit - Inpatient Facility

## Use Case

A member downloads a mobile application and authorizes it to access their EOB data for their claims when they had services performed by a hospital, clinic, or other facility as an inpatient. . When the member loads the EOB screen in the mobile application UI, the application requests filtering criteria to limit the number of EOB's returned. The member can filter by Status, Date, and Claim ID to refine their search. The UI calls the external endpoint for the EOB. That call retrieves the inpatient EOB data and returns it in the industry-standard format . The EOB data is then translated by the mobile application for display to the member.

## Supported Query Parameters

These query parameters can be sent in any combination:

Query Parameters

See also: [Common Request Parameters](#)

Name	Type	Description
<a href="#">service-date</a>	date	Select EOBs that have this date of service.  Can only be used with the Patient= query parameter.
<a href="#">type</a>	token <sup>1</sup>	Select EOBs based on the type of EOB. The following values are found in <b>type.coding.code</b> and can be:  <b>institutional</b>  <b>professional</b>  <b>pharmacy</b>  Can only be used with the Patient= query parameter.

1. A token refers to either [system][value] or [value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Supported GET Requests

- GET [base]/ExplanationOfBenefit?patient=[reference]
- GET [base]/ExplanationOfBenefit?patient=[reference]&status=XXXX

- GET [base]/ExplanationOfBenefit?patient=[reference]&status=XXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]
- GET [base]/ExplanationOfBenefit?identifier=[system]][value]
- GET [base]/ExplanationOfBenefit/[id]
- GET [base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

## Response Parameters

The response parameters for the GET method are as follows:

- [CARIN-BB ExplanationOfBenefit- Inpatient-Facility](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/ExplanationOfBenefit?patient=[reference]

```
[base]/ExplanationOfBenefit?patient=[reference]
GET    /ExplanationOfBenefit?patient=Patient2
{
```

```

"resourceType": "Bundle",
"id": "e11be496-3045-4144-860f-4b206302f278",
"meta": {
  "lastUpdated": "2021-01-27T21:21:32.629+00:00"
},
"type": "searchset",
"total": 3,
"link": [
  {
    "relation": "self",
    "url": "https://<datahub_server>/ExplanationOfBenefit?patient=Patient2"
  },
  {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=034e19bf-5f29-5f9a-bfc2-
158142108832&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
"entry": [
  {
    "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/673ab96c-ddca-4e76-beb6-b19482bbfced",
    "resource": {
      "resourceType": "ExplanationOfBenefit",
      "id": "673ab96c-ddca-4e76-beb6-b19482bbfced",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2019-12-18T22:49:23.000-05:00",
        "profile": [
          "http://tzf.com/fhir/StructureDefinition/ExplainofBenefit"
        ],
        "tag": [
          {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "5025759d-c516-4558-97b4-2006f72e30bc\t\t\t1"
          }
        ]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
      },
      "identifier": [
        {
          "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
          "value": "4E93-BE91-EAC1977941A8"
        },
        {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "673ab96c-ddca-4e76-beb6-b19482bbfced"
        }
      ],
      "status": "active",
      "type": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-claim-type",
            "code": "inpatient-facility",
            "display": "Inpatient Facility"
          }
        ]
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/Patient2"
      },
      "created": "2015-02-07T13:28:17-05:00",
      "enterer": {

```

```

        "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
        "reference": "Organization/Org45"
    },
    "provider": {
        "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
        {
            "sequence": 3,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                        "code": "clmrecvddate"
                    }
                ]
            },
            "timingDate": "2017-04-12"
        }
    ],
    "insurance": [
        {
            "focal": true,
            "coverage": {
                "reference": "Coverage/Coverage1"
            }
        }
    ],
    "total": [
        {
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
                        "code": "submittedamount"
                    }
                ]
            },
            "amount": {
                "value": 9000
            }
        }
    ]
},
{
    "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/5e9e9636-dac6-4984-8a03-49a9d53d5d24",
    "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "5e9e9636-dac6-4984-8a03-49a9d53d5d24",
        "meta": {
            "profile": [
                "http://tzf.com/fhir/StructureDefinition/ExplainofBenefit"
            ]
        },
        "identifier": [
            {
                "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
                "value": "4E93-BE91-EAC1977941A8"
            }
        ],
        "patient": {
            "reference": "Patient/Patient2"
        }
    }
}

```

```

    }
  ]
}

```

## [base]/ExplanationOfBenefit?patient=[reference]&status=XXXX

```

[base]/ExplanationOfBenefit?patient=[reference]&status=XXXX
GET /ExplanationOfBenefit?patient=Patient2&status=active

{
  "resourceType": "Bundle",
  "id": "a4659d4b-94b0-42e6-8265-b52bbf2133d4",
  "meta": {
    "lastUpdated": "2021-01-27T21:25:16.821+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/ExplanationOfBenefit?patient=Patient2&status=active"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/673ab96c-ddca-4e76-beb6-b19482bbfced",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "673ab96c-ddca-4e76-beb6-b19482bbfced",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2019-12-18T22:49:23.000-05:00",
          "profile": [
            "http://tzf.com/fhir/StructureDefinition/ExplainofBenefit"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "5025759d-c516-4558-97b4-2006f72e30bc\t\t\t1"
            }
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t\t</p>\n\t\t\t\t</div>"
        },
        "identifier": [
          {
            "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
            "value": "4E93-BE91-EAC1977941A8"
          },
          {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "673ab96c-ddca-4e76-beb6-b19482bbfced"
          }
        ],
        "status": "active",
        "type": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
              "code": "inpatient-facility",
              "display": "Inpatient Facility"
            }
          ]
        }
      }
    }
  ]
}

```

```

    }
  ]
},
"use": "claim",
"patient": {
  "reference": "Patient/Patient2"
},
"created": "2015-02-07T13:28:17-05:00",
"enterer": {
  "reference": "PractitionerRole/PractitionerRole1"
},
"insurer": {
  "reference": "Organization/Org45"
},
"provider": {
  "reference": "Organization/Org45"
},
"outcome": "complete",
"supportingInfo": [
  {
    "sequence": 3,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code": "clmrecvddate"
        }
      ]
    },
    "timingDate": "2017-04-12"
  }
],
"insurance": [
  {
    "focal": true,
    "coverage": {
      "reference": "Coverage/Coverage1"
    }
  }
],
"total": [
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
          "code": "submittedamount"
        }
      ]
    },
    "amount": {
      "value": 9000
    }
  }
]
},
{
  "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/d515d20a-bd65-4e4d-8823-64d61740aedf",
  "resource": {
    "resourceType": "ExplanationOfBenefit",
    "id": "d515d20a-bd65-4e4d-8823-64d61740aedf",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2019-12-18T22:49:23.000-05:00",
      "profile": [
        "http://tzf.com/fhir/StructureDefinition/ExplainofBenefit"
      ],
      "tag": [

```

```

        {
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "3c88df18-a3d5-48e9-9f25-23772b4c8935\t\t\t1"
        }
      ],
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t\t</div>"
      },
      "identifier": [
        {
          "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
          "value": "4E93-BE91-EAC1977941A8"
        },
        {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "d515d20a-bd65-4e4d-8823-64d61740aedef"
        }
      ],
      "status": "active",
      "type": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-claim-type",
            "code": "inpatient-facility",
            "display": "Inpatient Facility"
          }
        ]
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/Patient2"
      },
      "created": "2015-02-07T13:28:17-05:00",
      "enterer": {
        "reference": "PractitionerRole/PractitionerRole1"
      },
      "insurer": {
        "reference": "Organization/Org45"
      },
      "provider": {
        "reference": "Organization/Org45"
      },
      "outcome": "complete",
      "supportingInfo": [
        {
          "sequence": 3,
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-
claiminformationcategory",
                "code": "clmrecvddate"
              }
            ]
          }
        }
      ],
      "timingDate": "2017-04-12"
    },
    "insurance": [
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Coverage1"
        }
      }
    ]
  }

```



```

    ],
    "total": [
      {
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
              "code": "submittedamount"
            }
          ]
        },
        "amount": {
          "value": 9000
        }
      }
    ]
  }
}

```

[base]/ExplanationOfBenefit?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}

```

[base]/ExplanationOfBenefit?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}

GET /ExplanationOfBenefit?patient=Patient2&status=active&created=ge2015-02-07

{
  "resourceType": "Bundle",
  "id": "70323be6-d42f-48f7-b0a1-e5df72fcce91",
  "meta": {
    "lastUpdated": "2021-01-27T21:27:08.470+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/ExplanationOfBenefit?created=ge2015-02-
07&patient=Patient2&status=active"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/673ab96c-ddca-4e76-beb6-b19482bbfced",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "673ab96c-ddca-4e76-beb6-b19482bbfced",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2019-12-18T22:49:23.000-05:00",
          "profile": [
            "http://tzf.com/fhir/StructureDefinition/ExplainofBenefit"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "5025759d-c516-4558-97b4-2006f72e30bc\t\t1"
            }
          ]
        },
        "text": {
          "status": "generated",

```

```

      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t<p>\n\t\t\t<b>Generated
Narrative with Details</b>\n\t\t</p>\n\t\t</div>"
    },
    "identifier": [
      {
        "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
        "value": "4E93-BE91-EAC1977941A8"
      },
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "673ab96c-ddca-4e76-beb6-b19482bbfced"
      }
    ],
    "status": "active",
    "type": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
          "code": "inpatient-facility",
          "display": "Inpatient Facility"
        }
      ]
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Patient2"
    },
    "created": "2015-02-07T13:28:17-05:00",
    "enterer": {
      "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
      "reference": "Organization/Org45"
    },
    "provider": {
      "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
              "code": "clmrecvddate"
            }
          ]
        },
        "timingDate": "2017-04-12"
      }
    ],
    "insurance": [
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Coverage1"
        }
      }
    ],
    "total": [
      {
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
              "code": "submittedamount"
            }
          ]
        }
      }
    ]
  }
}

```

```

    }
    ],
    },
    "amount": {
      "value": 9000
    }
  ]
},
{
  "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/d515d20a-bd65-4e4d-8823-64d61740aedf",
  "resource": {
    "resourceType": "ExplanationOfBenefit",
    "id": "d515d20a-bd65-4e4d-8823-64d61740aedf",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2019-12-18T22:49:23.000-05:00",
      "profile": [
        "http://tzf.com/fhir/StructureDefinition/ExplainofBenefit"
      ],
      "tag": [
        {
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "3c88df18-a3d5-48e9-9f25-23772b4c8935\t\t\t1"
        }
      ]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
    },
    "identifier": [
      {
        "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
        "value": "4E93-BE91-EAC1977941A8"
      },
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "d515d20a-bd65-4e4d-8823-64d61740aedf"
      }
    ],
    "status": "active",
    "type": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
          "code": "inpatient-facility",
          "display": "Inpatient Facility"
        }
      ]
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Patient2"
    },
    "created": "2015-02-07T13:28:17-05:00",
    "enterer": {
      "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
      "reference": "Organization/Org45"
    },
    "provider": {
      "reference": "Organization/Org45"
    },
    "outcome": "complete",
  }
}

```

```

    "supportingInfo": [
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "clmrecvddate"
            }
          ]
        },
        "timingDate": "2017-04-12"
      }
    ],
    "insurance": [
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Coverage1"
        }
      }
    ],
    "total": [
      {
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
              "code": "submittedamount"
            }
          ]
        },
        "amount": {
          "value": 9000
        }
      }
    ]
  }
}

```

### [base]/ExplanationOfBenefit?identifier=[system]][[value]

```

[base]/ExplanationOfBenefit?identifier=[system]][[value]

GET /ExplanationOfBenefit?identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier|d515d20a-
bd65-4e4d-8823-64d61740aedef

{
  "resourceType": "Bundle",
  "id": "e96a4c1f-3d55-4113-86e2-6d6dd81f8026",
  "meta": {
    "lastUpdated": "2021-01-27T21:31:12.083+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/ExplanationOfBenefit?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fcarin%2FStructureDefinition%2Fcarin-bb-explanationofbenefit-inpatient-facility&identifier=com.cognizant.
tranzform.fhir.identifiers.logical-identifier%7Cd515d20a-bd65-4e4d-8823-64d61740aedef"
    }
  ],
}

```

```
"entry": [
  {
    "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/d515d20a-bd65-4e4d-8823-64d61740aedf",
    "resource": {
      "resourceType": "ExplanationOfBenefit",
      "id": "d515d20a-bd65-4e4d-8823-64d61740aedf",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2019-12-18T22:49:23.000-05:00",
        "profile": [
          "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
inpatient-facility"
        ],
        "tag": [
          {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "3c88df18-a3d5-48e9-9f25-23772b4c8935\t\t\t1"
          }
        ]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns='http://www.w3.org/1999/xhtml'>\n\t\t<p>\n\t\t\t<b>Generated
Narrative with Details</b>\n\t\t</p>\n\t\t</div>"
      },
      "identifier": [
        {
          "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
          "value": "4E93-BE91-EAC1977941A8"
        },
        {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "d515d20a-bd65-4e4d-8823-64d61740aedf"
        }
      ],
      "status": "active",
      "type": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
            "code": "inpatient-facility",
            "display": "Inpatient Facility"
          }
        ]
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/Patient2"
      },
      "created": "2015-02-07T13:28:17-05:00",
      "enterer": {
        "reference": "PractitionerRole/PractitionerRole1"
      },
      "insurer": {
        "reference": "Organization/Org45"
      },
      "provider": {
        "reference": "Organization/Org45"
      },
      "outcome": "complete",
      "supportingInfo": [
        {
          "sequence": 3,
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
```

```

        "code": "clmrecvddate"
      }
    ],
    "timingDate": "2017-04-12"
  },
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Coverage1"
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ]
}

```

### [base]/ExplanationOfBenefit/[id]

```

[base]/ExplanationOfBenefit/[id]
GET /ExplanationOfBenefit/EOBCP588

{
  "resourceType": "ExplanationOfBenefit",
  "id": "EOBCP588",
  "meta": {
    "versionId": "1626754459919",
    "lastUpdated": "2021-08-02T00:32:24.1278731-06:00",
    "source": "TZF",
    "profile": [
      "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-inpatient-facility"
    ],
    "tag": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/common-tags",
        "code": "user-request-id",
        "display": "98593dcf-c4b0-4196-a0a3-f83cab88c08d[1]"
      },
      {
        "code": "SecurityLabelStamped"
      }
    ]
  },
  "identifier": [
    {
      "use": "official",
      "type": {
        "text": "ClaimID"
      }
    }
  ]
}

```

```

    },
    "value" : "EOBclt01"
  }
],
"status" : "cancelled",
"type" : {
  "coding" : [
    {
      "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
      "code" : "inpatient-facility",
      "display" : "Inpatient Facility"
    }
  ]
},
"use" : "claim",
"patient" : {
  "reference" : "Patient/e372d6fe-fce7-5603-a2cc-e8002be74ef2",
  "type" : "Patient"
},
"billablePeriod" : {
  "start" : "2016-02-29T00:00:00-07:00",
  "end" : "2016-02-29T00:00:00-07:00"
},
"created" : "2017-03-09T00:00:00-07:00",
"enterer" : {
  "reference" : "Practitioner/10a5b6c0-4e5f-5333-abd9-f877ce690a3e"
},
"insurer" : {
  "reference" : "Organization/534495e9-3cae-55e3-8eb7-3f6553cd3f70"
},
"provider" : {
  "reference" : "Organization/534495e9-3cae-55e3-8eb7-3f6553cd3f70"
},
"priority" : {
  "coding" : [
    {
      "system" : "http://terminology.hl7.org/CodeSystem/processpriority",
      "code" : "normal",
      "display" : "Normal"
    }
  ]
},
"outcome" : "queued",
"careTeam" : [
  {
    "sequence" : 1,
    "provider" : {
      "reference" : "PractitionerRole/PracRoleLoNew201"
    },
    "role" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claimcareteamrole",
          "code" : "performing",
          "display" : "Servicing or Rendering provider"
        }
      ]
    }
  }
],
"supportingInfo" : [
  {
    "sequence" : 1,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
          "code" : "admissionperiod",
          "display" : "Admission Period"
        }
      ]
    }
  }
]

```

```

    },
    "timingPeriod" : {
      "start" : "2016-02-29T00:00:00-07:00"
    }
  },
  {
    "sequence" : 2,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claiminformationcategory",
          "code" : "clmrecvddate",
          "display" : "clmrecvddate"
        }
      ]
    },
    "timingDate" : "2016-03-09"
  },
  {
    "sequence" : 3,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claiminformationcategory",
          "code" : "typeofbill",
          "display" : "Type of Bill"
        }
      ]
    },
    "code" : {
      "text" : "77A1"
    }
  },
  {
    "sequence" : 4,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claiminformationcategory",
          "code" : "pointoforigin",
          "display" : "Point Of Origin"
        }
      ]
    },
    "code" : {
      "text" : "9"
    }
  },
  {
    "sequence" : 5,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claiminformationcategory",
          "code" : "admttype",
          "display" : "admttype"
        }
      ]
    },
    "code" : {
      "coding" : [
        {
          "system" : "http://www.nubc.org/priority-type-of-admission-or-visit",
          "code" : "9",
          "display" : "admttype"
        }
      ],
      "text" : "9"
    }
  },
  {

```



```

    "sequence" : 6,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
          "code" : "discharge-status",
          "display" : "discharge-status"
        }
      ]
    },
    "code" : {
      "coding" : [
        {
          "system" : "http://www.nubc.org/patient-discharge",
          "code" : "01",
          "display" : "discharge-status"
        }
      ],
      "text" : "01"
    }
  ],
  "diagnosis" : [
    {
      "sequence" : 1,
      "diagnosisCodeableConcept" : {
        "text" : "F1010"
      },
      "type" : [
        {
          "text" : "other"
        }
      ]
    },
    {
      "sequence" : 2,
      "diagnosisCodeableConcept" : {
        "text" : "F331"
      },
      "type" : [
        {
          "text" : "other"
        }
      ]
    }
  ],
  "insurance" : [
    {
      "focal" : false,
      "coverage" : {
        "reference" : "Coverage/Covingest011"
      }
    },
    {
      "focal" : true,
      "coverage" : {
        "reference" : "Coverage/Covingest011"
      }
    }
  ],
  "item" : [
    {
      "sequence" : 1,
      "revenue" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
            "code" : "0450"
          }
        ]
      }
    }
  ],

```

```

    "category" : {
      "text" : "medical"
    },
    "productOrService" : {
      "coding" : [
        {
          "system" : "http://snomed.info/sct",
          "code" : "712003",
          "display" : "Closed chest suction"
        }
      ]
    },
    "servicedPeriod" : {
      "start" : "2016-02-29T00:00:00-07:00",
      "end" : "2016-02-29T00:00:00-07:00"
    },
    "quantity" : {
      "value" : 1
    },
    "net" : {
      "value" : 188.66
    }
  ],
  "total" : [
    {
      "category" : {
        "text" : "eligible"
      },
      "amount" : {
        "value" : 189
      }
    }
  ]
}

```

[base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

```

[base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

GET /ExplanationOfBenefit?patient=Ptpingest011&service-date=ge2015-08-24&service-date=le2019-10-09

{
  "resourceType": "Bundle",
  "id": "3eb35c6d-e485-4ef3-895b-f0364411ed43",
  "meta": {
    "lastUpdated": "2022-04-05T15:21:06.051+00:00"
  },
  "type": "searchset",
  "total": 4,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub-server>/ExplanationOfBenefit?patient=Ptpingest011&service-date=ge2015-08-24&service-date=le2019-10-09"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOB532114-3",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "EOB532114-3",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2021-08-01T00:32:24.1278731-06:00",
          "source": "TZF",

```

```

        "profile": [
          "http://hl7.org/fhir/us/car/StructureDefinition/car-in-bb-explanationofbenefit-
inpatient-facility"
        ],
        "tag": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/common-tags",
            "code": "user-request-id",
            "display": "5b76d93e-c85d-4cc6-84a5-2bde88000ddb[1]"
          },
          {
            "code": "SecurityLabelStamped"
          }
        ]
      },
      "identifier": [
        {
          "use": "official",
          "type": {
            "text": "ClaimID"
          },
          "value": "EOBCLt01"
        }
      ],
      "status": "cancelled",
      "type": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/car/CodeSystem/car-in-bb-claim-type",
            "code": "inpatient-facility",
            "display": "Inpatient Facility"
          }
        ]
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/Ptpingest011",
        "type": "Patient"
      },
      "billablePeriod": {
        "start": "2016-02-29T00:00:00-07:00",
        "end": "2016-02-29T00:00:00-07:00"
      },
      "created": "2017-03-09T00:00:00-07:00",
      "enterer": {
        "reference": "Practitioner/e93beb55-2875-5e12-ba63-714487d42495"
      },
      "insurer": {
        "reference": "Organization/Orgingest011"
      },
      "provider": {
        "reference": "Organization/Orgingest011"
      },
      "priority": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/processpriority",
            "code": "normal",
            "display": "Normal"
          }
        ]
      },
      "outcome": "queued",
      "careTeam": [
        {
          "sequence": 1,
          "provider": {
            "reference": "PractitionerRole/Pracroleingest011"
          },
          "role": {
            "coding": [

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        {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claimcareteamrole",
            "code": "performing",
            "display": "Servicing or Rendering provider"
        }
    ]
}
],
"supportingInfo": [
    {
        "sequence": 1,
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
                    "code": "admissionperiod",
                    "display": "Admission Period"
                }
            ]
        },
        "timingPeriod": {
            "start": "2016-02-29T00:00:00-07:00"
        }
    },
    {
        "sequence": 2,
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
                    "code": "clmrecvddate",
                    "display": "clmrecvddate"
                }
            ]
        },
        "timingDate": "2016-03-09"
    },
    {
        "sequence": 3,
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
                    "code": "typeofbill",
                    "display": "Type of Bill"
                }
            ]
        },
        "code": {
            "text": "77A1"
        }
    },
    {
        "sequence": 4,
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
                    "code": "pointoforigin",
                    "display": "Point Of Origin"
                }
            ]
        },
        "code": {
            "text": "9"
        }
    }
]
}

```

```

    }
  },
  {
    "sequence": 5,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code": "admtypes",
          "display": "admtypes"
        }
      ]
    },
    "code": {
      "coding": [
        {
          "system": "http://www.nubc.org/priority-type-of-admission-or-visit",
          "code": "9",
          "display": "admtypes"
        }
      ],
      "text": "9"
    }
  },
  {
    "sequence": 6,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code": "discharge-status",
          "display": "discharge-status"
        }
      ]
    },
    "code": {
      "coding": [
        {
          "system": "http://www.nubc.org/patient-discharge",
          "code": "01",
          "display": "discharge-status"
        }
      ],
      "text": "01"
    }
  }
],
"diagnosis": [
  {
    "sequence": 1,
    "diagnosisCodeableConcept": {
      "text": "F1010"
    },
    "type": [
      {
        "text": "other"
      }
    ]
  },
  {
    "sequence": 2,
    "diagnosisCodeableConcept": {
      "text": "F331"
    },
    "type": [
      {
        "text": "other"
      }
    ]
  }
]

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    }
  ],
  "insurance": [
    {
      "focal": false,
      "coverage": {
        "reference": "Coverage/Covingest011"
      }
    },
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Covingest011"
      }
    }
  ],
  "item": [
    {
      "sequence": 1,
      "revenue": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
            "code": "0450"
          }
        ]
      },
      "category": {
        "text": "medical"
      },
      "productOrService": {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "712003",
            "display": "Closed chest suction"
          }
        ]
      },
      "servicedPeriod": {
        "start": "2016-02-29T00:00:00-07:00",
        "end": "2016-02-29T00:00:00-07:00"
      },
      "locationCodeableConcept": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-serviceplace",
            "code": "11",
            "display": "Office"
          }
        ]
      },
      "quantity": {
        "value": 1
      },
      "net": {
        "value": 188.66
      }
    }
  ],
  "total": [
    {
      "category": {
        "text": "eligible"
      },
      "amount": {
        "value": 189
      }
    }
  ]
}

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    },
    {
      "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOB532114-1",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "EOB532114-1",
        "meta": {
          "versionId": "1626754458839",
          "lastUpdated": "2021-09-29T18:57:16.412+05:30",
          "source": "ODS",
          "profile": [
            "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-explanationofbenefit-
professional-nonclinician"
          ],
          "tag": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/common-tags",
              "code": "user-request-id",
              "display": "e47ecd03-7ea5-4cb6-8278-97a04678ab48[1]"
            },
            {
              "code": "SecurityLabelStamped"
            }
          ]
        },
        "identifier": [
          {
            "use": "official",
            "type": {
              "text": "Claim number"
            },
            "system": "http://Molinahealthcare.com/Claim",
            "value": "19316297955",
            "period": {
              "start": "2019-10-09T00:00:00+05:30",
              "end": "2019-10-09T00:00:00+05:30"
            }
          },
          {
            "use": "official",
            "type": {
              "text": "TBClaim Reference Number"
            },
            "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
            "value": "MOHPRF19AL383800",
            "period": {
              "start": "2019-10-09T00:00:00+05:30",
              "end": "2019-10-09T00:00:00+05:30"
            }
          },
          {
            "use": "official",
            "type": {
              "text": "PATIENT ACCOUNT NUMBER"
            },
            "system": "http://terminology.hl7.org/CodeSystem/v2-0204",
            "value": "MOHPRF19AL383800",
            "period": {
              "start": "2019-10-09T00:00:00+05:30",
              "end": "2019-10-09T00:00:00+05:30"
            }
          }
        ],
        "status": "active",
        "type": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
              "code": "professional-nonclinician",
              "display": "Professional or Non-Clinician"
            }
          ]
        }
      }
    }
  ],
  "status": "active",
  "type": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
        "code": "professional-nonclinician",
        "display": "Professional or Non-Clinician"
      }
    ]
  }
}

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    ],
    "text": "Professional or Non-Clinician"
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/Ptpingest011",
    "type": "Patient"
  },
  "billablePeriod": {
    "start": "2019-10-09T00:00:00+05:30",
    "end": "2019-10-09T00:00:00+05:30"
  },
  "created": "2019-10-09T00:00:00+05:30",
  "enterer": {
    "reference": "ACME234505"
  },
  "insurer": {
    "reference": "Organization/ACME234505"
  },
  "provider": {
    "reference": "Organization/ACME234505"
  },
  "priority": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/processpriority",
        "code": "normal",
        "display": "Normal"
      }
    ]
  },
  "claim": {
    "reference": "Claim/CA-19316297955-MD"
  },
  "outcome": "complete",
  "supportingInfo": [
    {
      "sequence": 1,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
            "code": "clmrecvddate",
            "display": "clmrecvddate"
          }
        ],
        "text": "clmrecvddate"
      },
      "timingDate": "2019-11-12"
    }
  ],
  "diagnosis": [
    {
      "sequence": 1,
      "diagnosisCodeableConcept": {
        "text": "R68.84 : Jaw pain"
      },
      "type": [
        {
          "coding": [
            {
              "system": "http://snomed.info/sct",
              "code": "principal",
              "display": "principal"
            }
          ]
        }
      ]
    }
  ]
}

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        "sequence": 1,
        "diagnosisCodeableConcept": {
          "text": "R68.84 : Jaw pain"
        },
        "type": [
          {
            "coding": [
              {
                "system": "http://snomed.info/sct",
                "code": "principal",
                "display": "principal"
              }
            ]
          }
        ]
      },
    ],
    "procedure": [
      {
        "sequence": 1,
        "date": "2019-10-09T00:00:00+05:30",
        "procedureCodeableConcept": {
          "text": "70330 : RADEX TEMPOROMANDBLE JT OPN AND CLSD MOUTH BILAT"
        }
      }
    ],
    "insurance": [
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/CA-CMC150168119991-MD"
        }
      }
    ],
    "item": [
      {
        "sequence": 1,
        "productOrService": {
          "coding": [
            {
              "system": "urn:oid:2.16.840.1.113883.6.285",
              "code": "76937",
              "display": "US VASC ACCESS SITS VSL PATENCY NDL ENTRY"
            }
          ]
        },
        "servicedPeriod": {
          "start": "2019-10-09T00:00:00+05:30",
          "end": "2019-10-09T00:00:00+05:30"
        },
        "locationCodeableConcept": {
          "coding": [
            {
              "system": "https://www.cms.gov/Medicare/Coding/place-of-service-codes/Place_of_Service_Code_Set",
              "code": "11",
              "display": "Office"
            }
          ]
        }
      }
    ],
    "adjudication": [
      {
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-adjudicationcategory",
              "code": "otherbenefitpaymentstatus",
              "display": "other benefit payment status"
            }
          ]
        }
      }
    ]
  }

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    }
  ]
}
],
"total": [
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code": "paymentamount",
          "display": "payment amount"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  }
]
},
{
  "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOBCLt04",
  "resource": {
    "resourceType": "ExplanationOfBenefit",
    "id": "EOBCLt04",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2021-08-01T00:32:24.1278821-06:00",
      "source": "TZF",
      "profile": [
        "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-explanationofbenefit-
outpatient-facility"
      ],
      "tag": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/common-tags",
          "code": "user-request-id",
          "display": "ef6ea0f8-d2f4-431b-ab08-e5f4e6c591e1[1]"
        },
        {
          "code": "SecurityLabelStamped"
        }
      ]
    },
    "identifier": [
      {
        "use": "official",
        "type": {
          "text": "ClaimID"
        },
        "value": "EOBCLt04"
      }
    ],
    "status": "active",
    "type": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
          "code": "outpatient-facility",
          "display": "Outpatient Facility"
        }
      ]
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Ptpingest011",
      "type": "Patient"
    }
  }
}

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    },
    "billablePeriod": {
      "start": "2015-08-24T00:00:00-06:00",
      "end": "2015-08-24T00:00:00-06:00"
    },
    },
    "created": "2017-01-13T00:00:00-07:00",
    "enterer": {
      "reference": "Practitioner/1847202b-c4de-5941-b852-3cc7ca638106"
    },
    },
    "insurer": {
      "reference": "Organization/Orgingest011"
    },
    },
    "provider": {
      "reference": "Organization/Orgingest011"
    },
    },
    "priority": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/processpriority",
          "code": "normal",
          "display": "Normal"
        }
      ]
    },
    },
    "related": [
      {
        "claim": {
          "reference": "Claim/Clmingest011"
        },
        "relationship": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
relatedclaimrelationship",
              "code": "prior",
              "display": "Prior claim"
            }
          ]
        },
        "reference": {
          "value": "20522053"
        }
      }
    ],
    "referral": {
      "reference": "ServiceRequest/"
    },
    "outcome": "complete",
    "careTeam": [
      {
        "sequence": 1,
        "provider": {
          "reference": "PractitionerRole/Pracroleingest011"
        },
        "role": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claimcareteamrole",
              "code": "performing",
              "display": "Servicing or Rendering provider"
            }
          ]
        }
      }
    ],
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [

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        {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
            "code": "typeofbill",
            "display": "Type of Bill"
        }
    ],
    },
    "code": {
        "text": "0771"
    }
},
{
    "sequence": 2,
    "category": {
        "coding": [
            {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
                "code": "billingnetworkcontractingstatus",
                "display": "billingnetworkcontractingstatus"
            }
        ]
    },
    "code": {
        "text": "I : contracted"
    }
},
{
    "sequence": 3,
    "category": {
        "coding": [
            {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
                "code": "clmrecvddate",
                "display": "clmrecvddate"
            }
        ]
    },
    "timingDate": "2015-12-02"
}
],
"diagnosis": [
    {
        "sequence": 2,
        "diagnosisCodeableConcept": {
            "text": "2532"
        },
        "type": [
            {
                "text": "03"
            }
        ]
    },
    {
        "sequence": 3,
        "diagnosisCodeableConcept": {
            "text": "25000"
        },
        "type": [
            {
                "text": "01"
            }
        ]
    },
    {
        "sequence": 1,
        "diagnosisCodeableConcept": {
            "text": "4019"
        },
    },

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```

        "type": [
          {
            "text": "02"
          }
        ]
      },
    ],
    "insurance": [
      {
        "focal": false,
        "coverage": {
          "reference": "Coverage/Covingest011"
        }
      },
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Covingest011"
        }
      }
    ],
    "item": [
      {
        "sequence": 4,
        "diagnosisSequence": [
          3
        ],
        "category": {
          "text": "M"
        },
        "productOrService": {
          "text": "83036"
        },
        "servicedPeriod": {
          "start": "2015-08-24T00:00:00-06:00",
          "end": "2015-08-24T00:00:00-06:00"
        },
        "quantity": {
          "value": 1
        },
        "net": {
          "value": 0
        },
        "adjudication": [
          {
            "category": {
              "text": "allowedunits"
            },
            "value": 0
          },
          {
            "category": {
              "text": "copay"
            },
            "amount": {
              "value": 0
            }
          },
          {
            "category": {
              "text": "eligible"
            },
            "amount": {
              "value": 0
            }
          },
          {
            "category": {
              "text": "deductible"
            },
            "amount": {

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```
        "value": 0
      }
    },
    {
      "category": {
        "text": "benefit"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "coinsurance"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "noncovered"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "priorpayerpaid"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "paidtopatient"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "paidtoprovider"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "memberliability"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "discount"
      },
      "amount": {
        "value": 0
      }
    }
  ]
},
{
  "sequence": 1,
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```
"diagnosisSequence": [
  3
],
"category": {
  "text": "M"
},
"productOrService": {
  "text": "99213"
},
"modifier": [
  {
    "text": "25"
  }
],
"servicedPeriod": {
  "start": "2015-08-24T00:00:00-06:00",
  "end": "2015-08-24T00:00:00-06:00"
},
"quantity": {
  "value": 1
},
"net": {
  "value": 137.68
},
"adjudication": [
  {
    "category": {
      "text": "allowedunits"
    },
    "value": 1
  },
  {
    "category": {
      "text": "copay"
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "eligible"
    },
    "amount": {
      "value": 137.68
    }
  },
  {
    "category": {
      "text": "deductible"
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "benefit"
    },
    "amount": {
      "value": 137.68
    }
  },
  {
    "category": {
      "text": "coinsurance"
    },
    "amount": {
      "value": 0
    }
  }
],
```

```

        {
          "category": {
            "text": "noncovered"
          },
          "amount": {
            "value": 0
          }
        },
        {
          "category": {
            "text": "priorpayerpaid"
          },
          "amount": {
            "value": 0
          }
        },
        {
          "category": {
            "text": "paidtopatient"
          },
          "amount": {
            "value": 0
          }
        },
        {
          "category": {
            "text": "paidtoprovider"
          },
          "amount": {
            "value": 137.68
          }
        },
        {
          "category": {
            "text": "memberliability"
          },
          "amount": {
            "value": 0
          }
        },
        {
          "category": {
            "text": "discount"
          },
          "amount": {
            "value": 0
          }
        }
      ]
    },
    {
      "sequence": 3,
      "diagnosisSequence": [
        3
      ],
      "category": {
        "text": "M"
      },
      "productOrService": {
        "text": "96372"
      },
      "servicedPeriod": {
        "start": "2015-08-24T00:00:00-06:00",
        "end": "2015-08-24T00:00:00-06:00"
      },
      "quantity": {
        "value": 1
      },
      "net": {
        "value": 0
      }
    },
  ],

```



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"adjudication": [  
  {  
    "category": {  
      "text": "allowedunits"  
    },  
    "value": 0  
  },  
  {  
    "category": {  
      "text": "copay"  
    },  
    "amount": {  
      "value": 0  
    }  
  },  
  {  
    "category": {  
      "text": "eligible"  
    },  
    "amount": {  
      "value": 0  
    }  
  },  
  {  
    "category": {  
      "text": "deductible"  
    },  
    "amount": {  
      "value": 0  
    }  
  },  
  {  
    "category": {  
      "text": "benefit"  
    },  
    "amount": {  
      "value": 0  
    }  
  },  
  {  
    "category": {  
      "text": "coinsurance"  
    },  
    "amount": {  
      "value": 0  
    }  
  },  
  {  
    "category": {  
      "text": "noncovered"  
    },  
    "amount": {  
      "value": 0  
    }  
  },  
  {  
    "category": {  
      "text": "priorpayerpaid"  
    },  
    "amount": {  
      "value": 0  
    }  
  },  
  {  
    "category": {  
      "text": "paidtopatient"  
    },  
    "amount": {  
      "value": 0  
    }  
  }  
],
```

```

        {
          "category": {
            "text": "paidtoprovider"
          },
          "amount": {
            "value": 0
          }
        },
        {
          "category": {
            "text": "memberliability"
          },
          "amount": {
            "value": 0
          }
        },
        {
          "category": {
            "text": "discount"
          },
          "amount": {
            "value": 0
          }
        }
      ]
    },
    {
      "sequence": 2,
      "diagnosisSequence": [
        3
      ],
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        "text": "M"
      },
      "productOrService": {
        "text": "J1071"
      },
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        "end": "2015-08-24T00:00:00-06:00"
      },
      "quantity": {
        "value": 200
      },
      "net": {
        "value": 0
      },
      "adjudication": [
        {
          "category": {
            "text": "allowedunits"
          },
          "value": 0
        },
        {
          "category": {
            "text": "copay"
          },
          "amount": {
            "value": 0
          }
        },
        {
          "category": {
            "text": "eligible"
          },
          "amount": {
            "value": 0
          }
        }
      ],
    }
  ]
}

```

```
        "category": {
          "text": "deductible"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "benefit"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "coinsurance"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "noncovered"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "priorpayerpaid"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "paidtopatient"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "paidtoprovider"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "memberliability"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "discount"
        },
        "amount": {
          "value": 0
        }
      }
    ]
  }
```

```

    ]
  },
  "total": [
    {
      "category": {
        "text": "eligible"
      },
      "amount": {
        "value": 138
      }
    },
    {
      "category": {
        "text": "benefit"
      },
      "amount": {
        "value": 138
      }
    },
    {
      "category": {
        "text": "paidtoprovider"
      },
      "amount": {
        "value": 138
      }
    }
  ],
  "payment": {
    "type": {
      "text": "paid"
    },
    "adjustment": {
      "value": 0
    },
    "date": "2016-01-17",
    "amount": {
      "value": 137.68
    },
    "identifier": {
      "value": "E"
    }
  }
},
{
  "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/Eobingest011",
  "resource": {
    "resourceType": "ExplanationOfBenefit",
    "id": "Eobingest011",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2021-07-20T23:36:02.393+00:00",
      "profile": [
        "http://hl7.org/fhir/us/car/StructureDefinition/car/BB-ExplanationOfBenefit"
      ],
      "tag": [
        {
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "b673c26a-fa75-44b6-a8cb-ccf2a19d35cc\t\t\t1"
        }
      ]
    },
    "identifier": [
      {
        "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
        "value": "4E93-BE91-EAC1977941A8"
      },

```

```

        {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "Eobingest011"
        }
    ],
    "status": "active",
    "type": {
        "coding": [
            {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
                "code": "inpatient-facility",
                "display": "InpatientFacility"
            }
        ]
    },
    "use": "claim",
    "patient": {
        "reference": "Patient/Ptpingest011"
    },
    "billablePeriod": {
        "start": "2017-04-05",
        "end": "2017-04-14"
    },
    "created": "2017-04-15",
    "insurer": {
        "reference": "Organization/Orgingest011"
    },
    "provider": {
        "reference": "Organization/Orgingest011"
    },
    "outcome": "complete",
    "careTeam": [
        {
            "sequence": 1,
            "provider": {
                "reference": "Practitioner/Pracingest011"
            },
            "responsible": true,
            "role": {
                "coding": [
                    {
                        "code": "supervising",
                        "display": "AttendingorSupervisingprovider"
                    }
                ]
            }
        }
    ],
    "supportingInfo": [
        {
            "sequence": 1,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
                        "code": "billingnetworkcontractingstatus"
                    }
                ]
            }
        },
        {
            "sequence": 2,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
                        "code": "attendingnetworkcontractingstatus"
                    }
                ]
            }
        }
    ]
}

```

```

    ]
  },
  {
    "sequence": 3,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
          "code": "clmrecvddate"
        }
      ]
    },
    "timingDate": "2017-04-12"
  },
  {
    "sequence": 4,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
          "code": "typeofservice"
        }
      ]
    }
  },
  {
    "sequence": 5,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
          "code": "tob-typeoffacility"
        }
      ]
    }
  },
  {
    "sequence": 6,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
          "code": "tob-billclassification"
        }
      ]
    }
  },
  {
    "sequence": 7,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
          "code": "tob-frequency"
        }
      ]
    }
  },
  {
    "sequence": 8,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",

```

```

        "code": "admsrc"
      }
    ]
  },
  "diagnosis": [
    {
      "sequence": 1,
      "diagnosisCodeableConcept": {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "A30.1",
            "display": "Tuberculoidleprosy"
          }
        ]
      },
      "type": [
        {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/ex-diagnostictype",
              "code": "principal",
              "display": "Principaldiagnosis"
            }
          ]
        }
      ]
    }
  ],
  "procedure": [
    {
      "sequence": 1,
      "type": [
        {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/ex-procedure-type",
              "code": "primary"
            }
          ]
        }
      ],
      "date": "2017-04-05",
      "procedureCodeableConcept": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/sid/ex-icd-10-procedures",
            "code": "3E00X28",
            "display": "Introduction of Oxazolidinones into Skin and Mucous
Membranes, ExternalApproach"
          }
        ]
      }
    }
  ],
  "item": [
    {
      "sequence": 1,
      "careTeamSequence": [
        1
      ],
      "diagnosisSequence": [
        2
      ],
      "procedureSequence": [
        1
      ],
      "informationSequence": [
        1
      ]
    }
  ]
}

```

```
    ],
    "revenue": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
          "code": "0450"
        }
      ]
    },
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
          "code": "1",
          "display": "MedicalCare"
        }
      ]
    },
    "productOrService": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
          "code": "1101",
          "display": "Exam,comp,primary"
        }
      ]
    },
    "quantity": {
      "value": 6
    },
    "adjudication": [
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        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "submitted"
            }
          ]
        },
        "amount": {
          "value": 8000
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "eligible"
            }
          ]
        },
        "amount": {
          "value": 8000
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "deductible"
            }
          ]
        },
        "amount": {
          "value": 5000
        }
      }
    ]
  }
}
```



```

        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "copay"
            }
          ]
        },
        "amount": {
          "value": 100
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "benefit"
            }
          ]
        },
        "amount": {
          "value": 2400
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "tax"
            }
          ]
        },
        "amount": {
          "value": 0
        }
      }
    ]
  },
  {
    "sequence": 2,
    "careTeamSequence": [
      1
    ],
    "diagnosisSequence": [
      2
    ],
    "procedureSequence": [
      1
    ],
    "informationSequence": [
      1
    ],
    "revenue": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
          "code": "0450"
        }
      ]
    },
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
          "code": "1",
          "display": "MedicalCare"
        }
      ]
    }
  },
},

```

```
"productOrService": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
      "code": "1101",
      "display": "Exam,comp,primary"
    }
  ]
},
"quantity": {
  "value": 2
},
"adjudication": [
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "submitted"
        }
      ]
    },
    "amount": {
      "value": 750
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "eligible"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "deductible"
        }
      ]
    },
    "amount": {
      "value": 750
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "benefit"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "copay"
    },
    "amount": {
      "value": 750
    }
  }
]
```

```

    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "tax"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  }
],
},
{
  "sequence": 3,
  "careTeamSequence": [
    1
  ],
  "diagnosisSequence": [
    2
  ],
  "procedureSequence": [
    1
  ],
  "informationSequence": [
    1
  ],
  "revenue": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
        "code": "0370"
      }
    ]
  },
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
        "code": "1",
        "display": "MedicalCare"
      }
    ]
  },
  "productOrService": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
        "code": "1205",
        "display": "Exam,emergency"
      }
    ]
  },
  "quantity": {
    "value": 2
  },
  "adjudication": [
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "submitted"
          }
        ]
      }
    }
  ],
  "amount": {

```

```
        "value": 250
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "eligible"
          }
        ]
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "deductible"
          }
        ]
      },
      "amount": {
        "value": 250
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "benefit"
          }
        ]
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "copay"
          }
        ]
      },
      "amount": {
        "value": 250
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "tax"
          }
        ]
      },
      "amount": {
        "value": 0
      }
    }
  ]
},
]
```

```
"adjudication": [
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "submitted"
        }
      ]
    },
    "amount": {
      "value": 9000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "eligible"
        }
      ]
    },
    "amount": {
      "value": 8000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "deductible"
        }
      ]
    },
    "amount": {
      "value": 5000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "copay"
        }
      ]
    },
    "amount": {
      "value": 100
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "benefit"
        }
      ]
    },
    "amount": {
      "value": 2400
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
```

```
        "code": "tax"
      }
    ]
  },
  "amount": {
    "value": 0
  }
},
],
"total": [
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code": "submittedamount"
        }
      ]
    },
    "amount": {
      "value": 9000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code": "allowedamount"
        }
      ]
    },
    "amount": {
      "value": 8000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code": "deductibleamount"
        }
      ]
    },
    "amount": {
      "value": 5000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code": "coinsuranceamount"
        }
      ]
    },
    "amount": {
      "value": 80
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
```

```

    adjudicationcategory",
        "code": "copayment"
    }
    ],
    },
    "amount": {
        "value": 100
    }
    },
    {
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                    "code": "noncoveredamount"
                }
            ]
        },
        "amount": {
            "value": 1000
        }
    },
    {
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                    "code": "paymentamount"
                }
            ]
        },
        "amount": {
            "value": 2400
        }
    },
    {
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                    "code": "patientpayment"
                }
            ]
        },
        "amount": {
            "value": 6600
        }
    }
    ],
    "payment": {
        "type": {
            "coding": [
                {
                    "system": "http://terminology.hl7.org/CodeSystem/ex-paymenttype",
                    "code": "partial"
                }
            ]
        }
    },
    "date": "2017-05-12"
}
}
}
]
}

```

---

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# ExplanationOfBenefit - Outpatient Facility

## Use Case

A member downloads a mobile application and authorizes it to access their EOB data for their claims when they had services performed by a hospital, clinic, or other facility as an outpatient. When the member loads the EOB screen in the mobile application UI, the application requests filtering criteria to limit the number of EOB's returned. The member can filter by Status, Date, and Claim ID to refine their search. The UI calls the external endpoint for the EOB. That call retrieves the outpatient EOB data and returns it in the industry-standard format . The EOB data is then translated by the mobile application for display to the member.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Name	Type	Description
<a href="#">service-date</a>	date	Select EOBs that have this date of service.  Can only be used with the Patient= query parameter.
<a href="#">type</a>	token <sup>1</sup>	Select EOBs based on the type of EOB. The following values are found in <b>type.coding.code</b> and can be:  <b>institutional</b>  <b>professional</b>  <b>pharmacy</b>  Can only be used with the Patient= query parameter.

1. A token refers to either [system][value] or [value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Supported GET Requests

- GET [base]/ExplanationOfBenefit?patient=[reference]
- GET [base]/ExplanationOfBenefit?patient=[reference]&status=XXXX

- GET [base]/ExplanationOfBenefit?patient=[reference]&status=XXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}
- GET [base]/ExplanationOfBenefit?identifier=[system]][value]
- GET [base]/ExplanationOfBenefit/[id]
- GET [base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}

## Response Parameters

The response parameters for the GET method are as follows:

- [CARIN-BB- ExplanationOfBenefit- Outpatient-Facility](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/ExplanationOfBenefit?patient=[reference]

```
[base]/ExplanationOfBenefit?patient=[reference]
```

```
GET /ExplanationOfBenefit?patient=Patient4&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-outpatient-facility
```

```

{
  "resourceType": "Bundle",
  "id": "6d888d1e-1a14-4dd5-8fa9-7f1d51454ac1",
  "meta": {
    "lastUpdated": "2021-01-27T21:36:20.138+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/datahub/fhir/ExplanationOfBenefit?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcarin%2FStructureDefinition%2Fcarin-bb-explanationofbenefit-outpatient-facility&created=ge2015-02-07&patient=Patient4&status=active"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/datahub/fhir/ExplanationOfBenefit/84a9dc6c-5809-4112-8a8a-c84dbdfec74",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "84a9dc6c-5809-4112-8a8a-c84dbdfec74",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2019-12-18T22:49:23.000-05:00",
          "profile": [
            "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-outpatient-facility"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "f54f2aa5-82a4-437a-94a1-8fc4eabfd180\t\t\t1"
            }
          ],
          "text": {
            "status": "generated",
            "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with Details</b>\n\t\t\t\t<p>\n\t\t\t\t\t</div>"
          },
          "identifier": [
            {
              "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-identifier",
              "value": "4E93-BE91-EAC1977941A8"
            },
            {
              "use": "official",
              "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
              "value": "84a9dc6c-5809-4112-8a8a-c84dbdfec74"
            }
          ],
          "status": "active",
          "type": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
                "code": "outpatient-facility",
                "display": "outpatient-facility"
              }
            ]
          },
          "use": "claim",
          "patient": {
            "reference": "Patient/Patient4"
          },
          "created": "2015-02-07T13:28:17-05:00",
          "enterer": {

```

```

        "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
        "reference": "Organization/Org45"
    },
    "provider": {
        "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
        {
            "sequence": 1,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                        "code": "placeofservice"
                    }
                ]
            }
        },
        {
            "sequence": 2,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                        "code": "discharge-status"
                    }
                ]
            }
        },
        {
            "sequence": 3,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                        "code": "admttype"
                    }
                ]
            }
        },
        "timingDate": "2017-04-12"
    ],
    "insurance": [
        {
            "focal": true,
            "coverage": {
                "reference": "Coverage/Coverage1"
            }
        }
    ],
    "total": [
        {
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
                        "code": "submittedamount"
                    }
                ]
            },
            "amount": {
                "value": 9000
            }
        }
    ]
}

```

```

    ]
  }
}

```

## [base]/ExplanationOfBenefit?patient=[reference]&status=XXXX

```
[base]/ExplanationOfBenefit?patient=[reference]&status=XXXX
```

```
GET /ExplanationOfBenefit?patient=Patient4&status=active&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-outpatient-facility
```

```

{
  "resourceType": "Bundle",
  "id": "6d888d1e-1a14-4dd5-8fa9-7f1d51454ac1",
  "meta": {
    "lastUpdated": "2021-01-27T21:36:20.138+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/datahub/fhir/ExplanationOfBenefit?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcarin%2FStructureDefinition%2Fcarin-bb-explanationofbenefit-outpatient-facility&created=ge2015-02-07&patient=Patient4&status=active"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/datahub/fhir/ExplanationOfBenefit/84a9dc6c-5809-4112-8a8a-c84dbdfeec74",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "84a9dc6c-5809-4112-8a8a-c84dbdfeec74",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2019-12-18T22:49:23.000-05:00",
          "profile": [
            "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-outpatient-facility"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "f54f2aa5-82a4-437a-94a1-8fc4eabfd180\t\t\t1"
            }
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with Details</b>\n\t\t\t\t</p>\n\t\t\t\t</div>"
        },
        "identifier": [
          {
            "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-identifier",
            "value": "4E93-BE91-EAC1977941A8"
          },
          {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "84a9dc6c-5809-4112-8a8a-c84dbdfeec74"
          }
        ]
      }
    }
  ]
}

```

```

    ],
    "status": "active",
    "type": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-claim-type",
          "code": "outpatient-facility",
          "display": "outpatient-facility"
        }
      ]
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Patient4"
    },
    "created": "2015-02-07T13:28:17-05:00",
    "enterer": {
      "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
      "reference": "Organization/Org45"
    },
    "provider": {
      "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-
claiminformationcategory",
              "code": "placeofservice"
            }
          ]
        }
      },
      {
        "sequence": 2,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-
claiminformationcategory",
              "code": "discharge-status"
            }
          ]
        }
      },
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-
claiminformationcategory",
              "code": "admttype"
            }
          ]
        }
      }
    ],
    "timingDate": "2017-04-12"
  },
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Coverage1"
      }
    }
  ]
}

```

```

    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ]
}

```

[base]/ExplanationOfBenefit?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]&date={gt|lt|ge|le}[date]

```

[base]/ExplanationOfBenefit?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]&date={gt|lt|ge|le}[date]

GET /ExplanationOfBenefit?patient=Patient4&status=active&created=ge2015-02-07&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-outpatient-facility

{
  "resourceType": "Bundle",
  "id": "6d888d1e-1a14-4dd5-8fa9-7f1d51454ac1",
  "meta": {
    "lastUpdated": "2021-01-27T21:36:20.138+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/datahub/fhir/ExplanationOfBenefit?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcarin%2FStructureDefinition%2Fcarin-bb-explanationofbenefit-outpatient-facility&created=ge2015-02-07&patient=Patient4&status=active"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/datahub/fhir/ExplanationOfBenefit/84a9dc6c-5809-4112-8a8a-c84dbdfec74",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "84a9dc6c-5809-4112-8a8a-c84dbdfec74",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2019-12-18T22:49:23.000-05:00",
          "profile": [
            "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-outpatient-facility"
          ]
        },
        "tag": [
          {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "f54f2aa5-82a4-437a-94a1-8fc4eabfd180\t\t\t1"
          }
        ]
      }
    }
  ]
}

```

```

    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
    },
    "identifier": [
      {
        "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
        "value": "4E93-BE91-EAC1977941A8"
      },
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "84a9dc6c-5809-4112-8a8a-c84dbdfec74"
      }
    ],
    "status": "active",
    "type": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
          "code": "outpatient-facility",
          "display": "outpatient-facility"
        }
      ]
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Patient4"
    },
    "created": "2015-02-07T13:28:17-05:00",
    "enterer": {
      "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
      "reference": "Organization/Org45"
    },
    "provider": {
      "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
              "code": "placeofservice"
            }
          ]
        }
      },
      {
        "sequence": 2,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
              "code": "discharge-status"
            }
          ]
        }
      },
      {
        "sequence": 3,
        "category": {

```



```

      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code": "admtree"
        }
      ],
      "timingDate": "2017-04-12"
    },
    "insurance": [
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Coverage1"
        }
      }
    ],
    "total": [
      {
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
              "code": "submittedamount"
            }
          ],
          "amount": {
            "value": 9000
          }
        }
      }
    ]
  }
}

```

### [base]/ExplanationOfBenefit?identifier=[system]][value]

```

[base]/ExplanationOfBenefit?identifier=[system]][value]

GET /ExplanationOfBenefit?identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier|84a9dc6c-
5809-4112-8a8a-c84dbdfec74&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-
explanationofbenefit-outpatient-facility

{
  "resourceType": "Bundle",
  "id": "c7696d8e-ce67-46d2-8e46-b8e8ac0bbec3",
  "meta": {
    "lastUpdated": "2021-01-27T21:33:42.013+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/datahub/fhir/ExplanationOfBenefit?_profile=http%3A%2F%2Fhl7.
org%2Ffhir%2Fus%2Fcarin%2FStructureDefinition%2Fcarin-bb-explanationofbenefit-outpatient-
facility&identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier%7C84a9dc6c-5809-4112-8a8a-
c84dbdfec74"
    }
  ],
  "entry": [
    {

```

```

    "fullUrl": "https://<datahub_server>/datahub/fhir/ExplanationOfBenefit/84a9dc6c-5809-4112-8a8a-
c84dbdfeec74",
    "resource": {
      "resourceType": "ExplanationOfBenefit",
      "id": "84a9dc6c-5809-4112-8a8a-c84dbdfeec74",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2019-12-18T22:49:23.000-05:00",
        "profile": [
          "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
outpatient-facility"
        ],
        "tag": [
          {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "f54f2aa5-82a4-437a-94a1-8fc4eabfd180\t\t1"
          }
        ]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
      },
      "identifier": [
        {
          "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
          "value": "4E93-BE91-EAC1977941A8"
        },
        {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "84a9dc6c-5809-4112-8a8a-c84dbdfeec74"
        }
      ],
      "status": "active",
      "type": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
            "code": "outpatient-facility",
            "display": "outpatient-facility"
          }
        ]
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/Patient4"
      },
      "created": "2015-02-07T13:28:17-05:00",
      "enterer": {
        "reference": "PractitionerRole/PractitionerRole1"
      },
      "insurer": {
        "reference": "Organization/Org45"
      },
      "provider": {
        "reference": "Organization/Org45"
      },
      "outcome": "complete",
      "supportingInfo": [
        {
          "sequence": 1,
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                "code": "placeofservice"
              }
            ]
          }
        }
      ]
    }
  }

```

```

    }
  ]
},
{
  "sequence": 2,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
        "code": "discharge-status"
      }
    ]
  }
},
{
  "sequence": 3,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
        "code": "admtree"
      }
    ]
  },
  "timingDate": "2017-04-12"
},
],
"insurance": [
  {
    "focal": true,
    "coverage": {
      "reference": "Coverage/Coverage1"
    }
  }
],
"total": [
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
          "code": "submittedamount"
        }
      ]
    },
    "amount": {
      "value": 9000
    }
  }
]
}

```

[base]/ExplanationOfBenefit/[id]

```

[base]/ExplanationOfBenefit/[id]

GET /ExplanationOfBenefit/CA-19253112058A1

{
  "resourceType": "ExplanationOfBenefit",
  "id": "CA-19253112058A1",

```

```

"meta" : {
  "versionId" : "1626754457332",
  "lastUpdated" : "2021-04-27T04:04:45.946404-07:00",
  "source" : "QNXT",
  "profile" : [
    "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-outpatient-
facility"
  ],
  "tag" : [
    {
      "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
      "code" : "user-request-id",
      "display" : "032830c6-2bd2-4fda-b698-e788dc179fe1[1]"
    },
    {
      "code" : "SecurityLabelStamped"
    }
  ]
},
"identifier" : [
  {
    "use" : "official",
    "type" : {
      "coding" : [
        {
          "system" : "http://Molinahealthcare.com/Claim",
          "code" : "CLM",
          "display" : "Claim number"
        }
      ],
      "text" : "Claim number"
    },
    "system" : "http://Molinahealthcare.com/Claim",
    "value" : "19253112058A1",
    "period" : {
      "start" : "2019-08-14T00:00:00-07:00",
      "end" : "2019-08-14T00:00:00-07:00"
    }
  }
],
"status" : "active",
"type" : {
  "coding" : [
    {
      "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
      "code" : "outpatient-facility",
      "display" : "Outpatient Facility"
    }
  ],
  "text" : "Outpatient Facility"
},
"use" : "claim",
"patient" : {
  "reference" : "Patient/Ptp01",
  "type" : "Patient"
},
"billablePeriod" : {
  "start" : "2019-08-14T00:00:00-07:00",
  "end" : "2019-08-14T00:00:00-07:00"
},
"created" : "2019-08-14T00:00:00-07:00",
"enterer" : {
  "reference" : "Practitioner/Pracp01"
},
"insurer" : {
  "reference" : "Organization/CA-QMXIC6344"
},
"provider" : {
  "reference" : "Organization/CA-QMP000004467040"
},
"priority" : {

```

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    "text" : "NORMAL"
  },
  "payee" : {
    "type" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/payee-type",
          "code" : "provider",
          "display" : "Provider"
        }
      ],
      "text" : "Provider"
    },
    "party" : {
      "reference" : "Practitioner/Pracp01"
    }
  },
  "claim" : {
    "reference" : "Claim/19253112058A1"
  },
  "outcome" : "complete",
  "careTeam" : [
    {
      "sequence" : 1,
      "provider" : {
        "reference" : "PractitionerRole/PracRolep01"
      },
      "responsible" : true,
      "role" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-care-team-role",
            "code" : "prescribing",
            "display" : "Prescribing provider"
          }
        ],
        "text" : "prescribing provider"
      }
    }
  ],
  "supportingInfo" : [
    {
      "sequence" : 1,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-information-category",
            "code" : "clmrecvddate",
            "display" : "clmrecvddate"
          }
        ],
        "text" : "clmrecvddate"
      },
      "timingDate" : "2019-09-09"
    }
  ],
  "diagnosis" : [
    {
      "sequence" : 1,
      "diagnosisCodeableConcept" : {
        "text" : "J45.901 : UNS ASTHMA W ACUTE EXACERBATION"
      },
      "type" : [
        {
          "text" : "principal"
        }
      ]
    }
  ],
  {
    "sequence" : 2,
    "diagnosisCodeableConcept" : {

```

```

      "text" : "R06.02 : Shortness of breath"
    },
    "type" : [
      {
        "text" : "secondary"
      }
    ]
  ],
  {
    "sequence" : 3,
    "diagnosisCodeableConcept" : {
      "text" : "L50.9 : URTICARIA UNSPECIFIED"
    },
    "type" : [
      {
        "text" : "secondary"
      }
    ]
  }
],
"insurance" : [
  {
    "focal" : true,
    "coverage" : {
      "reference" : "Coverage/Covp01"
    }
  }
],
"item" : [
  {
    "sequence" : 1,
    "revenue" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/ex-revenue-center-1",
          "code" : "0250",
          "display" : "Pharmacy (also see 063x, an extension of 025x)"
        }
      ]
    },
    "text" : "Pharmacy - General"
  },
  "productOrService" : {
    "text" : "Z7610"
  },
  "servicedDate" : "2019-08-14",
  "locationReference" : {
    "reference" : "Location/Locp01"
  },
  "quantity" : {
    "value" : 1
  },
  "net" : {
    "value" : 152
  },
  "detail" : [
    {
      "sequence" : 1,
      "productOrService" : {
        "text" : "Z7610"
      },
      "adjudication" : [
        {
          "category" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code" : "cobamount",
                "display" : "cob amount"
              }
            ]
          }
        }
      ]
    }
  ]
]

```

```

    },
    "reason" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
          "code" : "ar001",
          "display" : "Not covered"
        }
      ],
      "text" : "Not covered"
    },
    "amount" : {
      "value" : 0
    }
  }
]
},
{
  "sequence" : 1,
  "productOrService" : {
    "text" : "Z7610"
  },
  "adjudication" : [
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/car/CodeSystem/car-in-bb-
adjudicationcategory",
            "code" : "coinsuranceamount",
            "display" : "coinsurance amount"
          }
        ]
      },
      "reason" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
            "code" : "ar001",
            "display" : "Not covered"
          }
        ],
        "text" : "Not covered"
      },
      "amount" : {
        "value" : 0
      }
    }
  ]
},
{
  "sequence" : 1,
  "productOrService" : {
    "text" : "Z7610"
  },
  "adjudication" : [
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/car/CodeSystem/car-in-bb-
adjudicationcategory",
            "code" : "copayamount",
            "display" : "copay amount"
          }
        ]
      },
      "reason" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",

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```

        "code" : "ar001",
        "display" : "Not covered"
      },
    ],
    "text" : "Not covered"
  },
  "amount" : {
    "value" : 0
  }
}
]
},
{
  "sequence" : 1,
  "productOrService" : {
    "text" : "Z7610"
  },
  "adjudication" : [
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "deductibleamount",
            "display" : "deductible amount"
          }
        ]
      },
      "reason" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
            "code" : "ar001",
            "display" : "Not covered"
          }
        ]
      },
      "text" : "Not covered"
    },
    {
      "amount" : {
        "value" : 0
      }
    }
  ]
},
{
  "sequence" : 1,
  "productOrService" : {
    "text" : "Z7610"
  },
  "adjudication" : [
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "patientpayamount",
            "display" : "patient pay amount"
          }
        ]
      },
      "reason" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
            "code" : "ar001",
            "display" : "Not covered"
          }
        ]
      },
      "text" : "Not covered"
    }
  ]
}

```



```

        },
        "amount" : {
            "value" : 0
        }
    }
]
},
{
    "sequence" : 1,
    "productOrService" : {
        "text" : "Z7610"
    },
    "adjudication" : [
        {
            "category" : {
                "coding" : [
                    {
                        "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                        "code" : "submittedamount",
                        "display" : "submitted amount"
                    }
                ]
            },
            "reason" : {
                "coding" : [
                    {
                        "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
                        "code" : "ar001",
                        "display" : "Not covered"
                    }
                ],
                "text" : "Not covered"
            },
            "amount" : {
                "value" : 152
            }
        }
    ]
}
]
},
{
    "sequence" : 2,
    "revenue" : {
        "coding" : [
            {
                "system" : "http://terminology.hl7.org/CodeSystem/ex-revenue-center-1",
                "code" : "0320",
                "display" : "Radiology - Diagnostic"
            }
        ],
        "text" : "Radiology - Diagnostic - General"
    },
    "productOrService" : {
        "text" : "71045"
    },
    "servicedDate" : "2019-08-14",
    "locationReference" : {
        "reference" : "Location/Locp01"
    },
    "quantity" : {
        "value" : 1
    },
    "net" : {
        "value" : 577
    },
    "detail" : [
        {
            "sequence" : 2,
            "productOrService" : {

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```

        "text" : "71045"
      },
      "adjudication" : [
        {
          "category" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code" : "cobamount",
                "display" : "cob amount"
              }
            ]
          },
          "reason" : {
            "coding" : [
              {
                "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
                "code" : "ar001",
                "display" : "Not covered"
              }
            ],
            "text" : "Not covered"
          },
          "amount" : {
            "value" : 0
          }
        }
      ]
    },
    {
      "sequence" : 2,
      "productOrService" : {
        "text" : "71045"
      },
      "adjudication" : [
        {
          "category" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code" : "coinsuranceamount",
                "display" : "coinsurance amount"
              }
            ]
          },
          "reason" : {
            "coding" : [
              {
                "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
                "code" : "ar001",
                "display" : "Not covered"
              }
            ],
            "text" : "Not covered"
          },
          "amount" : {
            "value" : 0
          }
        }
      ]
    },
    {
      "sequence" : 2,
      "productOrService" : {
        "text" : "71045"
      },
      "adjudication" : [
        {
          "category" : {

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```

        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "copayamount",
            "display" : "copay amount"
          }
        ]
      },
      "reason" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
            "code" : "ar001",
            "display" : "Not covered"
          }
        ],
        "text" : "Not covered"
      },
      "amount" : {
        "value" : 0
      }
    ]
  },
  {
    "sequence" : 2,
    "productOrService" : {
      "text" : "71045"
    },
    "adjudication" : [
      {
        "category" : {
          "coding" : [
            {
              "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
              "code" : "deductibleamount",
              "display" : "deductible amount"
            }
          ]
        },
        "reason" : {
          "coding" : [
            {
              "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
              "code" : "ar001",
              "display" : "Not covered"
            }
          ],
          "text" : "Not covered"
        },
        "amount" : {
          "value" : 0
        }
      }
    ]
  },
  {
    "sequence" : 2,
    "productOrService" : {
      "text" : "71045"
    },
    "adjudication" : [
      {
        "category" : {
          "coding" : [
            {
              "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
              "code" : "patientpayamount",

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        "display" : "patient pay amount"
      }
    ]
  },
  "reason" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
        "code" : "ar001",
        "display" : "Not covered"
      }
    ],
    "text" : "Not covered"
  },
  "amount" : {
    "value" : 0
  }
}
],
{
  "sequence" : 2,
  "productOrService" : {
    "text" : "71045"
  },
  "adjudication" : [
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "submittedamount",
            "display" : "submitted amount"
          }
        ],
        "text" : "Not covered"
      },
      "reason" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
            "code" : "ar001",
            "display" : "Not covered"
          }
        ],
        "text" : "Not covered"
      },
      "amount" : {
        "value" : 577
      }
    }
  ]
}
],
{
  "sequence" : 3,
  "revenue" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/ex-revenue-center-1",
        "code" : "0450",
        "display" : "Emergency Room"
      }
    ],
    "text" : "Emergency Room - General"
  },
  "productOrService" : {
    "text" : "Z7502"
  },
  "servicedDate" : "2019-08-14",

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```

"locationReference" : {
  "reference" : "Location/Loep01"
},
"quantity" : {
  "value" : 1
},
"net" : {
  "value" : 2089
},
"detail" : [
  {
    "sequence" : 3,
    "productOrService" : {
      "text" : "Z7502"
    },
    "adjudication" : [
      {
        "category" : {
          "coding" : [
            {
              "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
              "code" : "cobamount",
              "display" : "cob amount"
            }
          ]
        },
        "reason" : {
          "coding" : [
            {
              "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
              "code" : "ar001",
              "display" : "Not covered"
            }
          ],
          "text" : "Not covered"
        },
        "amount" : {
          "value" : 0
        }
      }
    ]
  },
  {
    "sequence" : 3,
    "productOrService" : {
      "text" : "Z7502"
    },
    "adjudication" : [
      {
        "category" : {
          "coding" : [
            {
              "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
              "code" : "coinsuranceamount",
              "display" : "coinsurance amount"
            }
          ]
        },
        "reason" : {
          "coding" : [
            {
              "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
              "code" : "ar001",
              "display" : "Not covered"
            }
          ],
          "text" : "Not covered"
        },
        "amount" : {

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```

        "value" : 0
      }
    }
  ],
},
{
  "sequence" : 3,
  "productOrService" : {
    "text" : "Z7502"
  },
  "adjudication" : [
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "copayamount",
            "display" : "copay amount"
          }
        ]
      },
      "reason" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
            "code" : "ar001",
            "display" : "Not covered"
          }
        ],
        "text" : "Not covered"
      },
      "amount" : {
        "value" : 0
      }
    }
  ]
},
{
  "sequence" : 3,
  "productOrService" : {
    "text" : "Z7502"
  },
  "adjudication" : [
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code" : "deductibleamount",
            "display" : "deductible amount"
          }
        ]
      },
      "reason" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
            "code" : "ar001",
            "display" : "Not covered"
          }
        ],
        "text" : "Not covered"
      },
      "amount" : {
        "value" : 0
      }
    }
  ]
},
],
},

```

```

    {
      "sequence" : 3,
      "productOrService" : {
        "text" : "Z7502"
      },
      "adjudication" : [
        {
          "category" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code" : "patientpayamount",
                "display" : "patient pay amount"
              }
            ]
          },
          "reason" : {
            "coding" : [
              {
                "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
                "code" : "ar001",
                "display" : "Not covered"
              }
            ],
            "text" : "Not covered"
          },
          "amount" : {
            "value" : 0
          }
        }
      ],
    },
    {
      "sequence" : 3,
      "productOrService" : {
        "text" : "Z7502"
      },
      "adjudication" : [
        {
          "category" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code" : "submittedamount",
                "display" : "submitted amount"
              }
            ]
          },
          "reason" : {
            "coding" : [
              {
                "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
                "code" : "ar001",
                "display" : "Not covered"
              }
            ],
            "text" : "Not covered"
          },
          "amount" : {
            "value" : 2089
          }
        }
      ],
    },
  ],
},
{
  "sequence" : 4,
  "revenue" : {

```

```

    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/ex-revenue-center-1",
        "code" : "0636",
        "display" : "Pharmacy - Extension of 25x"
      }
    ],
    "text" : "Pharmacy - Extension of 25X - Drug Requiring Detailed Coding"
  },
  "productOrService" : {
    "text" : "J0171"
  },
  "servicedDate" : "2019-08-14",
  "locationReference" : {
    "reference" : "Location/Locp01"
  },
  "quantity" : {
    "value" : 1
  },
  "net" : {
    "value" : 141
  },
  "detail" : [
    {
      "sequence" : 4,
      "productOrService" : {
        "text" : "J0171"
      },
      "adjudication" : [
        {
          "category" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code" : "cobamount",
                "display" : "cob amount"
              }
            ]
          },
          "reason" : {
            "coding" : [
              {
                "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
                "code" : "ar001",
                "display" : "Not covered"
              }
            ],
            "text" : "Not covered"
          },
          "amount" : {
            "value" : 0
          }
        }
      ]
    },
    {
      "sequence" : 4,
      "productOrService" : {
        "text" : "J0171"
      },
      "adjudication" : [
        {
          "category" : {
            "coding" : [
              {
                "system" : "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code" : "coinsuranceamount",
                "display" : "coinsurance amount"
              }
            ]
          }
        }
      ]
    }
  ]
}

```



```

    ]
  },
  "reason" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
        "code" : "ar001",
        "display" : "Not covered"
      }
    ],
    "text" : "Not covered"
  },
  "amount" : {
    "value" : 0
  }
}
]
},
{
  "sequence" : 4,
  "productOrService" : {
    "text" : "J0171"
  },
  "adjudication" : [
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/car/CodeSystem/car-in-bb-
adjudicationcategory",
            "code" : "copayamount",
            "display" : "copay amount"
          }
        ]
      },
      "reason" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
            "code" : "ar001",
            "display" : "Not covered"
          }
        ],
        "text" : "Not covered"
      },
      "amount" : {
        "value" : 0
      }
    }
  ]
},
{
  "sequence" : 4,
  "productOrService" : {
    "text" : "J0171"
  },
  "adjudication" : [
    {
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/car/CodeSystem/car-in-bb-
adjudicationcategory",
            "code" : "deductibleamount",
            "display" : "deductible amount"
          }
        ]
      },
      "reason" : {
        "coding" : [
          {

```

```

                "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
                "code" : "ar001",
                "display" : "Not covered"
            }
        ],
        "text" : "Not covered"
    },
    "amount" : {
        "value" : 0
    }
}
]
},
{
    "sequence" : 4,
    "productOrService" : {
        "text" : "J0171"
    },
    "adjudication" : [
        {
            "category" : {
                "coding" : [
                    {
                        "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
                        "code" : "patientpayamount",
                        "display" : "patient pay amount"
                    }
                ]
            },
            "reason" : {
                "coding" : [
                    {
                        "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
                        "code" : "ar001",
                        "display" : "Not covered"
                    }
                ]
            },
            "text" : "Not covered"
        },
        "amount" : {
            "value" : 0
        }
    ]
},
{
    "sequence" : 4,
    "productOrService" : {
        "text" : "J0171"
    },
    "adjudication" : [
        {
            "category" : {
                "coding" : [
                    {
                        "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
                        "code" : "submittedamount",
                        "display" : "submitted amount"
                    }
                ]
            },
            "reason" : {
                "coding" : [
                    {
                        "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
                        "code" : "ar001",
                        "display" : "Not covered"
                    }
                ]
            },
            "text" : "Not covered"
        }
    ]
},
]

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        "text" : "Not covered"
      },
      "amount" : {
        "value" : 141
      }
    ]
  }
],
"adjudication" : [
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-adjudicationcategory",
          "code" : "denialreason",
          "display" : "payment denial reason"
        }
      ]
    },
    "reason" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/adjudication-reason",
          "code" : "ar001",
          "display" : "Not covered"
        }
      ],
      "text" : "Not covered"
    },
    "amount" : {
      "value" : 2959
    }
  }
],
"total" : [
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-adjudicationcategory",
          "code" : "paymentamount",
          "display" : "payment amount"
        }
      ]
    },
    "amount" : {
      "value" : 66.73
    }
  }
]
}

```

[base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]&date={gt|lt|ge|le}[date]

```

[base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]&date={gt|lt|ge|le}[date]

GET /ExplanationOfBenefit?patient=Ptpingest011&service-date=ge2015-08-24&service-date=le2019-10-09

{
  "resourceType": "Bundle",
  "id": "3eb35c6d-e485-4ef3-895b-f0364411ed43",
  "meta": {
    "lastUpdated": "2022-04-05T15:21:06.051+00:00"
  },
}

```

```

    "type": "searchset",
    "total": 4,
    "link": [
      {
        "relation": "self",
        "url": "https://<datahub-server>/ExplanationOfBenefit?patient=Ptpingest011&service-date=ge2015-08-24&service-date=le2019-10-09"
      }
    ],
    "entry": [
      {
        "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOB532114-3",
        "resource": {
          "resourceType": "ExplanationOfBenefit",
          "id": "EOB532114-3",
          "meta": {
            "versionId": "1626754457332",
            "lastUpdated": "2021-08-01T00:32:24.1278731-06:00",
            "source": "TZF",
            "profile": [
              "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-explanationofbenefit-inpatient-facility"
            ]
          },
          "tag": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/common-tags",
              "code": "user-request-id",
              "display": "5b76d93e-c85d-4cc6-84a5-2bde88000ddb[1]"
            },
            {
              "code": "SecurityLabelStamped"
            }
          ]
        },
        "identifier": [
          {
            "use": "official",
            "type": {
              "text": "ClaimID"
            },
            "value": "EOBClt01"
          }
        ],
        "status": "cancelled",
        "type": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
              "code": "inpatient-facility",
              "display": "Inpatient Facility"
            }
          ]
        },
        "use": "claim",
        "patient": {
          "reference": "Patient/Ptpingest011",
          "type": "Patient"
        },
        "billablePeriod": {
          "start": "2016-02-29T00:00:00-07:00",
          "end": "2016-02-29T00:00:00-07:00"
        },
        "created": "2017-03-09T00:00:00-07:00",
        "enterer": {
          "reference": "Practitioner/e93beb55-2875-5e12-ba63-714487d42495"
        },
        "insurer": {
          "reference": "Organization/Orgingest011"
        },
        "provider": {
          "reference": "Organization/Orgingest011"
        }
      }
    ]
  }

```

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    },
    "priority": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/processpriority",
          "code": "normal",
          "display": "Normal"
        }
      ]
    },
    "outcome": "queued",
    "careTeam": [
      {
        "sequence": 1,
        "provider": {
          "reference": "PractitionerRole/Pracroleingest011"
        },
        "role": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claimcareteamrole",
              "code": "performing",
              "display": "Servicing or Rendering provider"
            }
          ]
        }
      }
    ],
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "admissionperiod",
              "display": "Admission Period"
            }
          ]
        },
        "timingPeriod": {
          "start": "2016-02-29T00:00:00-07:00"
        }
      },
      {
        "sequence": 2,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "clmrecvddate",
              "display": "clmrecvddate"
            }
          ]
        },
        "timingDate": "2016-03-09"
      },
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "typeofbill",
              "display": "Type of Bill"
            }
          ]
        }
      }
    ]
  }

```

```

    },
    "code": {
      "text": "77A1"
    }
  },
  {
    "sequence": 4,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
          "code": "pointoforigin",
          "display": "Point Of Origin"
        }
      ]
    },
    "code": {
      "text": "9"
    }
  },
  {
    "sequence": 5,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
          "code": "admtpe",
          "display": "admtpe"
        }
      ]
    },
    "code": {
      "coding": [
        {
          "system": "http://www.nubc.org/priority-type-of-admission-or-visit",
          "code": "9",
          "display": "admtpe"
        }
      ],
      "text": "9"
    }
  },
  {
    "sequence": 6,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
          "code": "discharge-status",
          "display": "discharge-status"
        }
      ]
    },
    "code": {
      "coding": [
        {
          "system": "http://www.nubc.org/patient-discharge",
          "code": "01",
          "display": "discharge-status"
        }
      ],
      "text": "01"
    }
  }
],
"diagnosis": [
  {
    "sequence": 1,

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        "diagnosisCodeableConcept": {
          "text": "F1010"
        },
        "type": [
          {
            "text": "other"
          }
        ]
      },
      {
        "sequence": 2,
        "diagnosisCodeableConcept": {
          "text": "F331"
        },
        "type": [
          {
            "text": "other"
          }
        ]
      }
    ],
    "insurance": [
      {
        "focal": false,
        "coverage": {
          "reference": "Coverage/Covingest011"
        }
      },
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Covingest011"
        }
      }
    ],
    "item": [
      {
        "sequence": 1,
        "revenue": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
              "code": "0450"
            }
          ]
        },
        "category": {
          "text": "medical"
        },
        "productOrService": {
          "coding": [
            {
              "system": "http://snomed.info/sct",
              "code": "712003",
              "display": "Closed chest suction"
            }
          ]
        },
        "servicedPeriod": {
          "start": "2016-02-29T00:00:00-07:00",
          "end": "2016-02-29T00:00:00-07:00"
        },
        "locationCodeableConcept": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/ex-serviceplace",
              "code": "11",
              "display": "Office"
            }
          ]
        }
      }
    ],
  },

```

```

        "quantity": {
            "value": 1
        },
        "net": {
            "value": 188.66
        }
    },
    "total": [
        {
            "category": {
                "text": "eligible"
            },
            "amount": {
                "value": 189
            }
        }
    ]
},
{
    "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOB532114-1",
    "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "EOB532114-1",
        "meta": {
            "versionId": "1626754459919",
            "lastUpdated": "2021-09-29T18:57:16.412+05:30",
            "source": "ODS",
            "profile": [
                "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
professional-nonclinician"
            ],
            "tag": [
                {
                    "system": "http://terminology.hl7.org/CodeSystem/common-tags",
                    "code": "user-request-id",
                    "display": "e47ecd03-7ea5-4cb6-8278-97a04678ab48[1]"
                },
                {
                    "code": "SecurityLabelStamped"
                }
            ]
        },
        "identifier": [
            {
                "use": "official",
                "type": {
                    "text": "Claim number"
                },
                "system": "http://Molinahealthcare.com/Claim",
                "value": "19316297955",
                "period": {
                    "start": "2019-10-09T00:00:00+05:30",
                    "end": "2019-10-09T00:00:00+05:30"
                }
            },
            {
                "use": "official",
                "type": {
                    "text": "TBClaim Reference Number"
                },
                "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
                "value": "MOHPRF19AL383800",
                "period": {
                    "start": "2019-10-09T00:00:00+05:30",
                    "end": "2019-10-09T00:00:00+05:30"
                }
            },
            {
                "use": "official",

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```

        "type": {
          "text": "PATIENT ACCOUNT NUMBER"
        },
        "system": "http://terminology.hl7.org/CodeSystem/v2-0204",
        "value": "MOHPRF19AL383800",
        "period": {
          "start": "2019-10-09T00:00:00+05:30",
          "end": "2019-10-09T00:00:00+05:30"
        }
      }
    ],
    "status": "active",
    "type": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
          "code": "professional-nonclinician",
          "display": "Professional or Non-Clinician"
        }
      ],
      "text": "Professional or Non-Clinician"
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Ptpingest011",
      "type": "Patient"
    },
    "billablePeriod": {
      "start": "2019-10-09T00:00:00+05:30",
      "end": "2019-10-09T00:00:00+05:30"
    },
    "created": "2019-10-09T00:00:00+05:30",
    "enterer": {
      "reference": "ACME234505"
    },
    "insurer": {
      "reference": "Organization/ACME234505"
    },
    "provider": {
      "reference": "Organization/ACME234505"
    },
    "priority": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/processpriority",
          "code": "normal",
          "display": "Normal"
        }
      ]
    },
    "claim": {
      "reference": "Claim/CA-19316297955-MD"
    },
    "outcome": "complete",
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
              "code": "clmrecvddate",
              "display": "clmrecvddate"
            }
          ]
        },
        "text": "clmrecvddate"
      },
      {
        "timingDate": "2019-11-12"
      }
    ]
  },
],

```

```

"diagnosis": [
  {
    "sequence": 1,
    "diagnosisCodeableConcept": {
      "text": "R68.84 : Jaw pain"
    },
    "type": [
      {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "principal",
            "display": "principal"
          }
        ]
      }
    ]
  },
  {
    "sequence": 1,
    "diagnosisCodeableConcept": {
      "text": "R68.84 : Jaw pain"
    },
    "type": [
      {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "principal",
            "display": "principal"
          }
        ]
      }
    ]
  }
],
"procedure": [
  {
    "sequence": 1,
    "date": "2019-10-09T00:00:00+05:30",
    "procedureCodeableConcept": {
      "text": "70330 : RADEX TEMPOROMANDBLE JT OPN AND CLSD MOUTH BILAT"
    }
  }
],
"insurance": [
  {
    "focal": true,
    "coverage": {
      "reference": "Coverage/CA-CMC150168119991-MD"
    }
  }
],
"item": [
  {
    "sequence": 1,
    "productOrService": {
      "coding": [
        {
          "system": "urn:oid:2.16.840.1.113883.6.285",
          "code": "76937",
          "display": "US VASC ACCESS SITS VSL PATENCY NDL ENTRY"
        }
      ]
    },
    "servicedPeriod": {
      "start": "2019-10-09T00:00:00+05:30",
      "end": "2019-10-09T00:00:00+05:30"
    },
    "locationCodeableConcept": {
      "coding": [

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        {
            "system": "https://www.cms.gov/Medicare/Coding/place-of-service-codes
/Place_of_Service_Code_Set",
            "code": "11",
            "display": "Office"
        }
    ]
}
],
"adjudication": [
    {
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
                    "code": "otherbenefitpaymentstatus",
                    "display": "other benefit payment status"
                }
            ]
        }
    },
    {
        "total": [
            {
                "category": {
                    "coding": [
                        {
                            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
                            "code": "paymentamount",
                            "display": "payment amount"
                        }
                    ]
                },
                "amount": {
                    "value": 0
                }
            }
        ]
    }
],
{
    "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOBCLt04",
    "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "EOBCLt04",
        "meta": {
            "versionId": "1626754457332",
            "lastUpdated": "2021-08-01T00:32:24.1278821-06:00",
            "source": "TZF",
            "profile": [
                "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
outpatient-facility"
            ],
            "tag": [
                {
                    "system": "http://terminology.hl7.org/CodeSystem/common-tags",
                    "code": "user-request-id",
                    "display": "ef6ea0f8-d2f4-431b-ab08-e5f4e6c591e1[1]"
                },
                {
                    "code": "SecurityLabelStamped"
                }
            ]
        },
        "identifier": [
            {
                "use": "official",
                "type": {

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```

        "text": "ClaimID"
      },
      "value": "EOBCLt04"
    }
  ],
  "status": "active",
  "type": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
        "code": "outpatient-facility",
        "display": "Outpatient Facility"
      }
    ]
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/Ptpingest011",
    "type": "Patient"
  },
  "billablePeriod": {
    "start": "2015-08-24T00:00:00-06:00",
    "end": "2015-08-24T00:00:00-06:00"
  },
  "created": "2017-01-13T00:00:00-07:00",
  "enterer": {
    "reference": "Practitioner/1847202b-c4de-5941-b852-3cc7ca638106"
  },
  "insurer": {
    "reference": "Organization/Orgingest011"
  },
  "provider": {
    "reference": "Organization/Orgingest011"
  },
  "priority": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/processpriority",
        "code": "normal",
        "display": "Normal"
      }
    ]
  },
  "related": [
    {
      "claim": {
        "reference": "Claim/Clmingest011"
      },
      "relationship": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
relatedclaimrelationship",
            "code": "prior",
            "display": "Prior claim"
          }
        ]
      },
      "reference": {
        "value": "20522053"
      }
    }
  ],
  "referral": {
    "reference": "ServiceRequest/"
  },
  "outcome": "complete",
  "careTeam": [
    {
      "sequence": 1,
      "provider": {

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```

        "reference": "PractitionerRole/Pracroleingest011"
      },
      "role": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claimcareteamrole",
            "code": "performing",
            "display": "Servicing or Rendering provider"
          }
        ]
      }
    ],
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "typeofbill",
              "display": "Type of Bill"
            }
          ]
        },
        "code": {
          "text": "0771"
        }
      },
      {
        "sequence": 2,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "billingnetworkcontractingstatus",
              "display": "billingnetworkcontractingstatus"
            }
          ]
        },
        "code": {
          "text": "I : contracted"
        }
      },
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "clmrecvddate",
              "display": "clmrecvddate"
            }
          ]
        },
        "timingDate": "2015-12-02"
      }
    ],
    "diagnosis": [
      {
        "sequence": 2,
        "diagnosisCodeableConcept": {
          "text": "2532"
        },
        "type": [
          {
            "text": "03"
          }
        ]
      }
    ]
  }
}

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```

    }
  ]
},
{
  "sequence": 3,
  "diagnosisCodeableConcept": {
    "text": "25000"
  },
  "type": [
    {
      "text": "01"
    }
  ]
},
{
  "sequence": 1,
  "diagnosisCodeableConcept": {
    "text": "4019"
  },
  "type": [
    {
      "text": "02"
    }
  ]
}
],
"insurance": [
  {
    "focal": false,
    "coverage": {
      "reference": "Coverage/Covingest011"
    }
  },
  {
    "focal": true,
    "coverage": {
      "reference": "Coverage/Covingest011"
    }
  }
],
"item": [
  {
    "sequence": 4,
    "diagnosisSequence": [
      3
    ],
    "category": {
      "text": "M"
    },
    "productOrService": {
      "text": "83036"
    },
    "servicedPeriod": {
      "start": "2015-08-24T00:00:00-06:00",
      "end": "2015-08-24T00:00:00-06:00"
    },
    "quantity": {
      "value": 1
    },
    "net": {
      "value": 0
    },
    "adjudication": [
      {
        "category": {
          "text": "allowedunits"
        },
        "value": 0
      },
      {
        "category": {

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```
        "text": "copay"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "eligible"
      },
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    },
    {
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      "amount": {
        "value": 0
      }
    }
  ],
  {
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        },
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        },
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    },
    "amount": {
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  },
  {
    "category": {
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    },
    "amount": {
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    }
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  {
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    },
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    },
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  },
  {
    "category": {
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    },
    "amount": {
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        "value": 0
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      },
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        "value": 0
      }
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        "text": "paidtoprovider"
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      "amount": {
        "value": 0
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        "text": "allowedunits"
      }
    }
  ],

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    "amount": {
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    },
    "amount": {
      "value": 0
    }
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  {
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      "text": "benefit"
    },
    "amount": {
      "value": 0
    }
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  {
    "category": {
      "text": "coinsurance"
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "noncovered"
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "priorpayerpaid"
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "paidtopatient"
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "paidtoprovider"
    },
    "amount": {
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      "category": {
        "text": "memberliability"
      },
      "amount": {
        "value": 0
      }
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    {
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      },
      "amount": {
        "value": 0
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      "text": "benefit"
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    "amount": {
      "value": 138
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    "category": {
      "text": "paidtoprovider"
    },
    "amount": {
      "value": 138
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  "date": "2016-01-17",
  "amount": {
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  "identifier": {
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}
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  "resource": {
    "resourceType": "ExplanationOfBenefit",
    "id": "Eobingest011",
    "meta": {

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    "versionId": "1626754457332",
    "lastUpdated": "2021-07-20T23:36:02.393+00:00",
    "profile": [
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    "tag": [
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        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "b673c26a-fa75-44b6-a8cb-ccf2a19d35cc\t\t\t1"
      }
    ]
  },
  "identifier": [
    {
      "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
      "value": "4E93-BE91-EAC1977941A8"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "Eobingest011"
    }
  ],
  "status": "active",
  "type": {
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        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
        "code": "inpatient-facility",
        "display": "InpatientFacility"
      }
    ]
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/Ptpingest011"
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    "start": "2017-04-05",
    "end": "2017-04-14"
  },
  "created": "2017-04-15",
  "insurer": {
    "reference": "Organization/Orgingest011"
  },
  "provider": {
    "reference": "Organization/Orgingest011"
  },
  "outcome": "complete",
  "careTeam": [
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      "sequence": 1,
      "provider": {
        "reference": "Practitioner/Pracingest011"
      },
      "responsible": true,
      "role": {
        "coding": [
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            "code": "supervising",
            "display": "AttendingorSupervisingprovider"
          }
        ]
      }
    }
  ],
  "supportingInfo": [
    {
      "sequence": 1,

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              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
              "code": "billingnetworkcontractingstatus"
            }
          ]
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          "coding": [
            {
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claiminformationcategory",
              "code": "attendingnetworkcontractingstatus"
            }
          ]
        },
      },
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        "category": {
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              "code": "clmrecvddate"
            }
          ]
        },
        "timingDate": "2017-04-12"
      },
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        "category": {
          "coding": [
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              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
              "code": "typeofservice"
            }
          ]
        },
      },
      {
        "sequence": 5,
        "category": {
          "coding": [
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              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
              "code": "tob-typeoffacility"
            }
          ]
        },
      },
      {
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        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
              "code": "tob-billclassification"
            }
          ]
        },
      },
    ],
  },

```

```

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                        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
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                        "code": "tob-frequency"
                    }
                ]
            }
        },
        {
            "sequence": 8,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
                        "code": "admsrc"
                    }
                ]
            }
        }
    ],
    "diagnosis": [
        {
            "sequence": 1,
            "diagnosisCodeableConcept": {
                "coding": [
                    {
                        "system": "http://snomed.info/sct",
                        "code": "A30.1",
                        "display": "Tuberculoidleprosy"
                    }
                ]
            },
            "type": [
                {
                    "coding": [
                        {
                            "system": "http://terminology.hl7.org/CodeSystem/ex-diagnostype",
                            "code": "principal",
                            "display": "Principaldiagnosis"
                        }
                    ]
                }
            ]
        }
    ],
    "procedure": [
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            "sequence": 1,
            "type": [
                {
                    "coding": [
                        {
                            "system": "http://terminology.hl7.org/CodeSystem/ex-procedure-type",
                            "code": "primary"
                        }
                    ]
                }
            ],
            "date": "2017-04-05",
            "procedureCodeableConcept": {
                "coding": [
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                        "system": "http://hl7.org/fhir/sid/ex-icd-10-procedures",
                        "code": "3E00X28",
                        "display": "Introduction of Oxazolidinones into Skin and Mucous
Membranes, ExternalApproach"
                    }
                ]
            }
        }
    ]
}

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    }
  ]
}
],
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  {
    "sequence": 1,
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      1
    ],
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      2
    ],
    "procedureSequence": [
      1
    ],
    "informationSequence": [
      1
    ],
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          "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
          "code": "0450"
        }
      ]
    },
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
          "code": "1",
          "display": "MedicalCare"
        }
      ]
    },
    "productOrService": {
      "coding": [
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          "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
          "code": "1101",
          "display": "Exam,comp,primary"
        }
      ]
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    "quantity": {
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        "category": {
          "coding": [
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              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "submitted"
            }
          ]
        },
        "amount": {
          "value": 8000
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "eligible"
            }
          ]
        }
      ]
    ]
  }
]

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                    "code": "deductible"
                }
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                    "system": "http://terminology.hl7.org/CodeSystem/adjudication",
                    "code": "copay"
                }
            ]
        },
        "amount": {
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    },
    {
        "category": {
            "coding": [
                {
                    "system": "http://terminology.hl7.org/CodeSystem/adjudication",
                    "code": "benefit"
                }
            ]
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        "amount": {
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        }
    },
    {
        "category": {
            "coding": [
                {
                    "system": "http://terminology.hl7.org/CodeSystem/adjudication",
                    "code": "tax"
                }
            ]
        },
        "amount": {
            "value": 0
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    }
]
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    ],
    "diagnosisSequence": [
        2
    ],
    "procedureSequence": [
        1
    ],
    "informationSequence": [

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    1
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        "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
        "code": "0450"
      }
    ]
  },
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
        "code": "1",
        "display": "MedicalCare"
      }
    ]
  },
  "productOrService": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
        "code": "1101",
        "display": "Exam,comp,primary"
      }
    ]
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  "quantity": {
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            "code": "submitted"
          }
        ]
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    },
    {
      "category": {
        "coding": [
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            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
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          }
        ]
      },
      "amount": {
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    {
      "category": {
        "coding": [
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            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "deductible"
          }
        ]
      },
      "amount": {
        "value": 750
      }
    }
  ],

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          "category": {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/adjudication",
                "code": "benefit"
              }
            ]
          },
          "amount": {
            "value": 0
          }
        },
        {
          "category": {
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          },
          "amount": {
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        },
        {
          "category": {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/adjudication",
                "code": "tax"
              }
            ]
          },
          "amount": {
            "value": 0
          }
        }
      ]
    },
    {
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      "diagnosisSequence": [
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      ],
      "procedureSequence": [
        1
      ],
      "informationSequence": [
        1
      ],
      "revenue": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
            "code": "0370"
          }
        ]
      },
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
            "code": "1",
            "display": "MedicalCare"
          }
        ]
      },
      "productOrService": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",

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        "code": "1205",
        "display": "Exam,emergency"
    }
  ]
},
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},
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  {
    "category": {
      "coding": [
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          "code": "submitted"
        }
      ]
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  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "eligible"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "deductible"
        }
      ]
    },
    "amount": {
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  },
  {
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      "coding": [
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          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "benefit"
        }
      ]
    },
    "amount": {
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    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "copay"
        }
      ]
    },
    "amount": {

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        "value": 250
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    },
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        "coding": [
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            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "tax"
          }
        ]
      },
      "amount": {
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    }
  ]
},
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  {
    "category": {
      "coding": [
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          "code": "submitted"
        }
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        {
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        }
      ]
    },
    "amount": {
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    }
  },
  {
    "category": {
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          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "deductible"
        }
      ]
    },
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      "value": 5000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "copay"
        }
      ]
    },
    "amount": {
      "value": 100
    }
  }
]

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```

    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "benefit"
          }
        ]
      },
      "amount": {
        "value": 2400
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "tax"
          }
        ]
      },
      "amount": {
        "value": 0
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/car/CodeSystem/car-bb-
adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/car/CodeSystem/car-bb-
adjudicationcategory",
            "code": "allowedamount"
          }
        ]
      },
      "amount": {
        "value": 8000
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/car/CodeSystem/car-bb-
adjudicationcategory",
            "code": "deductibleamount"
          }
        ]
      },
      "amount": {
        "value": 5000
      }
    }
  ],

```

```

        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "coinsuranceamount"
              }
            ]
          },
          "amount": {
            "value": 80
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "copayamount"
              }
            ]
          },
          "amount": {
            "value": 100
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "noncoveredamount"
              }
            ]
          },
          "amount": {
            "value": 1000
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "paymentamount"
              }
            ]
          },
          "amount": {
            "value": 2400
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "patientpayamount"
              }
            ]
          },
          "amount": {
            "value": 6600
          }
        }
      ],
    ],
  ],

```



```
    "payment": {
      "type": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-paymenttype",
            "code": "partial"
          }
        ]
      },
      "date": "2017-05-12"
    }
  ]
}
```

---

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# ExplanationOfBenefit - Pharmacy

## Use Case

A member downloads a mobile application and authorizes it to access their EOB data for their claims that were submitted by a retail pharmacy. When the member loads the EOB screen in the mobile application UI, the application requests filtering criteria to limit the number of EOB's returned. The member can filter by Status, Date, and Claim ID to refine their search. The UI calls the external endpoint for the EOB. That call retrieves the pharmacy EOB data and returns it in the industry-standard format . The EOB data is then translated by the mobile application for display to the member.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Name	Type	Description
<a href="#">service-date</a>	date	Select EOBs that have this date of service.  Can only be used with the Patient= query parameter.
<a href="#">type</a>	token <sup>1</sup>	Select EOBs based on the type of EOB. The following values are found in <b>type.coding.code</b> and can be:  <b>institutional</b>  <b>professional</b>  <b>pharmacy</b>  Can only be used with the Patient= query parameter.

1. A token refers to either [system][value] or [value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Supported GET Requests

- GET [base]/ExplanationOfBenefit?patient=[reference]
- GET [base]/ExplanationOfBenefit?patient=[reference]&status=XXXX

- GET [base]/ExplanationOfBenefit?patient=[reference]&status=XXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}
- GET [base]/ExplanationOfBenefit?identifier=[system]][value]
- GET [base]/ExplanationOfBenefit/[id]
- GET [base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}

## Response Parameters

The response parameters for the GET method are as follows:

- [CARIN-BB- ExplanationOfBenefit- Pharmacy](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/ExplanationOfBenefit?patient=[reference]

```
[base]/ExplanationOfBenefit?patient=[reference]
```

```
GET /ExplanationOfBenefit?patient=Patient1&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-pharmacy
```



```

        "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
        "reference": "Organization/Org45"
    },
    "provider": {
        "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
        {
            "sequence": 3,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                        "code": "placeofservice"
                    }
                ]
            },
            "timingDate": "2017-04-12"
        }
    ],
    "insurance": [
        {
            "focal": true,
            "coverage": {
                "reference": "Coverage/Coverage1"
            }
        }
    ],
    "total": [
        {
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
                        "code": "submittedamount"
                    }
                ]
            },
            "amount": {
                "value": 9000
            }
        }
    ]
},
{
    "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/914acb4a-1fdc-4931-b183-efbf4a6a5563",
    "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "914acb4a-1fdc-4931-b183-efbf4a6a5563",
        "meta": {
            "versionId": "1626754457332",
            "lastUpdated": "2019-12-18T22:49:23.000-05:00",
            "profile": [
                "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
pharmacy"
            ],
            "tag": [
                {
                    "system": "tranzform-apim-request-ns",
                    "code": "user-request-id",
                    "display": "8b52fd79-0a8d-47ea-b880-9f497e33e4ab\t\t\t1"
                }
            ]
        },
        "text": {

```

```

        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t<p>\n\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
    },
    "identifier": [
        {
            "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
            "value": "4E93-BE91-EAC1977941A8"
        },
        {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "914acb4a-1fdc-4931-b183-efbf4a6a5563"
        }
    ],
    "status": "active",
    "type": {
        "coding": [
            {
                "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
                "code": "pharmacy",
                "display": "pharmacy"
            }
        ]
    },
    "use": "claim",
    "patient": {
        "reference": "Patient/Patient1"
    },
    "created": "2015-02-07T13:28:17-05:00",
    "enterer": {
        "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
        "reference": "Organization/Org45"
    },
    "provider": {
        "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
        {
            "sequence": 3,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                        "code": "brandgenericcode"
                    }
                ]
            },
            "timingDate": "2017-04-12"
        }
    ],
    "insurance": [
        {
            "focal": true,
            "coverage": {
                "reference": "Coverage/Coverage1"
            }
        }
    ],
    "total": [
        {
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",

```



```

      "value": "4E93-BE91-EAC1977941A8"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "85a26580-4dc7-49ae-8ca9-03004940853a"
    }
  ],
  "status": "active",
  "type": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
        "code": "pharmacy",
        "display": "pharmacy"
      }
    ]
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/Patient1"
  },
  "created": "2015-02-07T13:28:17-05:00",
  "enterer": {
    "reference": "PractitionerRole/PractitionerRole1"
  },
  "insurer": {
    "reference": "Organization/Org45"
  },
  "provider": {
    "reference": "Organization/Org45"
  },
  "outcome": "complete",
  "supportingInfo": [
    {
      "sequence": 3,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
            "code": "placeofservice"
          }
        ]
      },
      "timingDate": "2017-04-12"
    }
  ],
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Coverage1"
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ]
}

```



```

    ]
  },
  {
    "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/914acb4a-1fdc-4931-b183-efbf4a6a5563",
    "resource": {
      "resourceType": "ExplanationOfBenefit",
      "id": "914acb4a-1fdc-4931-b183-efbf4a6a5563",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2019-12-18T22:49:23.000-05:00",
        "profile": [
          "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-explanationofbenefit-
pharmacy"
        ],
        "tag": [
          {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "8b52fd79-0a8d-47ea-b880-9f497e33e4ab\t\t\t1"
          }
        ]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\<http://www.w3.org/1999/xhtml\>\>\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
      },
      "identifier": [
        {
          "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
          "value": "4E93-BE91-EAC1977941A8"
        },
        {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "914acb4a-1fdc-4931-b183-efbf4a6a5563"
        }
      ],
      "status": "active",
      "type": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
            "code": "pharmacy",
            "display": "pharmacy"
          }
        ]
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/Patient1"
      },
      "created": "2015-02-07T13:28:17-05:00",
      "enterer": {
        "reference": "PractitionerRole/PractitionerRole1"
      },
      "insurer": {
        "reference": "Organization/Org45"
      },
      "provider": {
        "reference": "Organization/Org45"
      },
      "outcome": "complete",
      "supportingInfo": [
        {
          "sequence": 3,
          "category": {
            "coding": [

```

```

        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
        "code": "brandgenericcode"
      }
    ],
    "timingDate": "2017-04-12"
  },
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Coverage1"
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ]
}

```

[base]/ExplanationOfBenefit?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

```

[base]/ExplanationOfBenefit?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}
[date]

GET /ExplanationOfBenefit?patient=Patient1&status=active&created=ge2015-02-07&_profile=http://hl7.org/fhir
/us/carin/StructureDefinition/carin-bb-explanationofbenefit-pharmacy

{
  "resourceType": "Bundle",
  "id": "377fdf2c-54fa-4a8e-89d3-ae9ae69c7c6b",
  "meta": {
    "lastUpdated": "2021-01-27T21:39:54.633+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/ExplanationOfBenefit?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fcarin%2FStructureDefinition%2Fcarin-bb-explanationofbenefit-pharmacy&created=ge2015-02-
07&patient=Patient1&status=active"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/85a26580-4dc7-49ae-8ca9-03004940853a",
      "resource": {
        "resourceType": "ExplanationOfBenefit",

```

```
    "id": "85a26580-4dc7-49ae-8ca9-03004940853a",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2019-12-18T22:49:23.000-05:00",
      "profile": [
        "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
pharmacy"
      ],
      "tag": [
        {
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "bb6eb695-50d9-492a-9372-971e0a263a06\t\t\t1"
        }
      ]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
    },
    "identifier": [
      {
        "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
        "value": "4E93-BE91-EAC1977941A8"
      },
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "85a26580-4dc7-49ae-8ca9-03004940853a"
      }
    ],
    "status": "active",
    "type": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
          "code": "pharmacy",
          "display": "pharmacy"
        }
      ]
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Patient1"
    },
    "created": "2015-02-07T13:28:17-05:00",
    "enterer": {
      "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
      "reference": "Organization/Org45"
    },
    "provider": {
      "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "placeofservice"
            }
          ]
        }
      }
    ],
    "timingDate": "2017-04-12"
```

```

    }
  ],
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Coverage1"
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ]
},
{
  "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/914acb4a-1fdc-4931-b183-efbf4a6a5563",
  "resource": {
    "resourceType": "ExplanationOfBenefit",
    "id": "914acb4a-1fdc-4931-b183-efbf4a6a5563",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2019-12-18T22:49:23.000-05:00",
      "profile": [
        "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
pharmacy"
      ]
    },
    "tag": [
      {
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "8b52fd79-0a8d-47ea-b880-9f497e33e4ab\t\t\t1"
      }
    ]
  },
  "text": {
    "status": "generated",
    "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t\t</p>\n\t\t\t\t</div>"
  },
  "identifier": [
    {
      "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
      "value": "4E93-BE91-EAC1977941A8"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "914acb4a-1fdc-4931-b183-efbf4a6a5563"
    }
  ],
  "status": "active",
  "type": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
        "code": "pharmacy",

```

```

        "display": "pharmacy"
      }
    ]
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/Patient1"
  },
  "created": "2015-02-07T13:28:17-05:00",
  "enterer": {
    "reference": "PractitionerRole/PractitionerRole1"
  },
  "insurer": {
    "reference": "Organization/Org45"
  },
  "provider": {
    "reference": "Organization/Org45"
  },
  "outcome": "complete",
  "supportingInfo": [
    {
      "sequence": 3,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "brandgenericcode"
          }
        ]
      },
      "timingDate": "2017-04-12"
    }
  ],
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Coverage1"
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ]
}

```

[base]/ExplanationOfBenefit?identifier=[system]][value]

[base]/ExplanationOfBenefit?identifier=[system]][value]

GET /ExplanationOfBenefit?identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier|914acb4a-

```

1fdc-4931-b183-efbf4a6a5563&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-
explanationofbenefit-pharmacy

{
  "resourceType": "Bundle",
  "id": "a4163441-c30c-4bde-8372-da31df802e31",
  "meta": {
    "lastUpdated": "2021-01-27T21:41:47.957+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/ExplanationOfBenefit?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fcarin%2FStructureDefinition%2Fcarin-bb-explanationofbenefit-pharmacy&identifier=com.cognizant.tranzform.
fhir.identifiers.logical-identifier%7C914acb4a-1fdc-4931-b183-efbf4a6a5563"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/914acb4a-1fdc-4931-b183-efbf4a6a5563",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "914acb4a-1fdc-4931-b183-efbf4a6a5563",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2019-12-18T22:49:23.000-05:00",
          "profile": [
            "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
pharmacy"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "8b52fd79-0a8d-47ea-b880-9f497e33e4ab\t\t\t1"
            }
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
        },
        "identifier": [
          {
            "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
            "value": "4E93-BE91-EAC1977941A8"
          },
          {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "914acb4a-1fdc-4931-b183-efbf4a6a5563"
          }
        ],
        "status": "active",
        "type": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
              "code": "pharmacy",
              "display": "pharmacy"
            }
          ]
        },
        "use": "claim",
        "patient": {
          "reference": "Patient/Patient1"
        }
      }
    }
  ]
}

```

```

    },
    "created": "2015-02-07T13:28:17-05:00",
    "enterer": {
      "reference": "PractitionerRole/PractitionerRole1"
    },
    },
    "insurer": {
      "reference": "Organization/Org45"
    },
    },
    "provider": {
      "reference": "Organization/Org45"
    },
    },
    "outcome": "complete",
    "supportingInfo": [
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "brandgenericcode"
            }
          ]
        },
        "timingDate": "2017-04-12"
      }
    ],
    "insurance": [
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Coverage1"
        }
      }
    ],
    "total": [
      {
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
              "code": "submittedamount"
            }
          ]
        },
        "amount": {
          "value": 9000
        }
      }
    ]
  }
}

```

### [base]/ExplanationOfBenefit/[id]

```

[base]/ExplanationOfBenefit/[id]
GET /ExplanationOfBenefit/EOBPharmacy1
{
  "resourceType": "ExplanationOfBenefit",
  "id": "EOBPharmacy1",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2019-12-12T09:14:11+00:00",

```

```

    "profile" : [
      "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-pharmacy"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "69cd07b0-0828-4b9f-ad42-f20a1e05e63d[1]"
      },
      {
        "code" : "SecurityLabelStamped"
      }
    ]
  },
  "language" : "en-US",
  "identifier" : [
    {
      "type" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carin-bb/CodeSystem/C4BBIdentifierType",
            "code" : "uc"
          }
        ]
      },
      "system" : "https://www.xxxplan.com/fhir/EOBIdentifier",
      "value" : "AW1234123412341234123412341234123412"
    }
  ],
  "status" : "active",
  "type" : {
    "coding" : [
      {
        "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
        "code" : "pharmacy"
      }
    ]
  },
  "text" : "Pharmacy"
},
"use" : "claim",
"patient" : {
  "reference" : "Patient/Ptpts01",
  "type" : "Patient"
},
"billablePeriod" : {
  "start" : "2019-10-30",
  "end" : "2019-10-31"
},
"created" : "2019-07-02T00:00:00+00:00",
"insurer" : {
  "reference" : "Organization/ACME234505",
  "display" : "Acme Labs ACME234505"
},
"provider" : {
  "reference" : "Organization/ACME234505",
  "display" : "Acme Labs ACME234505"
},
"outcome" : "partial",
"supportingInfo" : [
  {
    "sequence" : 1,
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claiminformationcategory",
          "code" : "brandgenericcode"
        }
      ]
    }
  }
],
"code" : {
  "coding" : [

```



```

        {
          "system" : "http://terminology.hl7.org/CodeSystem/NCPDPBrandGenericIndicator",
          "code" : "2"
        }
      ]
    },
    {
      "sequence" : 2,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claiminformationcategory",
            "code" : "rxorigincode"
          }
        ]
      },
      "code" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/NCPDPPrescriptionOriginCode",
            "code" : "1"
          }
        ]
      }
    },
    {
      "sequence" : 3,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claiminformationcategory",
            "code" : "refillnum"
          }
        ]
      },
      "valueQuantity" : {
        "value" : 0
      }
    },
    {
      "sequence" : 4,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claiminformationcategory",
            "code" : "dawcode"
          }
        ]
      },
      "code" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem
/NCPDPDispensedAsWrittenOrProductSelectionCode",
            "code" : "7"
          }
        ]
      }
    },
    {
      "sequence" : 5,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claiminformationcategory",
            "code" : "clmrecvddate"
          }
        ]
      },
      "timingDate" : "2019-10-31"
    }
  ]
}

```

```

    },
    {
      "sequence" : 6,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-claiminformationcategory",
            "code" : "dayssupply"
          }
        ]
      },
      "valueQuantity" : {
        "value" : 30
      }
    },
    {
      "sequence" : 7,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-claiminformationcategory",
            "code" : "billingnetworkcontractingstatus"
          }
        ]
      },
      "code" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carine-bb/CodeSystem/C4BBPayerAdjudicationStatus",
            "code" : "contracted"
          }
        ]
      }
    }
  ],
  "insurance" : [
    {
      "focal" : true,
      "coverage" : {
        "reference" : "Coverage/ICOEPAT001"
      }
    }
  ],
  "item" : [
    {
      "sequence" : 1,
      "productOrService" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/sid/ndc",
            "code" : "0777-3105-02",
            "display" : "100 CAPSULE in 1 BOTTLE (0777-3105-02)"
          }
        ]
      },
      "adjudication" : [
        {
          "category" : {
            "coding" : [
              {
                "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
                "code" : "submitted"
              }
            ]
          },
          "amount" : {
            "value" : 1000
          }
        }
      ],
      "category" : {

```

```

        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/adjudication",
            "code" : "benefit"
          }
        ]
      },
      "amount" : {
        "value" : 20
      }
    ]
  }
],
"total" : [
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-adjudicationcategory",
          "code" : "submittedamount"
        }
      ]
    },
    "text" : "Submitted Amount"
  },
  "amount" : {
    "value" : 2650
  }
},
{
  "category" : {
    "coding" : [
      {
        "system" : "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-adjudicationcategory",
        "code" : "patientpayamount"
      }
    ]
  },
  "text" : "patient pay amount"
},
"amount" : {
  "value" : 0
}
}
]
}

```

[base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

```

[base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

GET /ExplanationOfBenefit?patient=Ptpingest011&service-date=ge2015-08-24&service-date=le2019-10-09

{
  "resourceType": "Bundle",
  "id": "3eb35c6d-e485-4ef3-895b-f0364411ed43",
  "meta": {
    "lastUpdated": "2022-04-05T15:21:06.051+00:00"
  },
  "type": "searchset",
  "total": 4,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub-server>/ExplanationOfBenefit?patient=Ptpingest011&service-date=ge2015-08-24&service-date=le2019-10-09"
    }
  ]
},

```

```
"entry": [
  {
    "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOB532114-3",
    "resource": {
      "resourceType": "ExplanationOfBenefit",
      "id": "EOB532114-3",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2021-08-01T00:32:24.1278731-06:00",
        "source": "TZF",
        "profile": [
          "http://hl7.org/fhir/us/car/StructureDefinition/car/StructureDefinition/carin-bb-explanationofbenefit-
inpatient-facility"
        ],
        "tag": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/common-tags",
            "code": "user-request-id",
            "display": "5b76d93e-c85d-4cc6-84a5-2bde8800ddb[1]"
          },
          {
            "code": "SecurityLabelStamped"
          }
        ]
      },
      "identifier": [
        {
          "use": "official",
          "type": {
            "text": "ClaimID"
          },
          "value": "EOBCLt01"
        }
      ],
      "status": "cancelled",
      "type": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/car/CodeSystem/car/CodeSystem/carin-bb-claim-type",
            "code": "inpatient-facility",
            "display": "Inpatient Facility"
          }
        ]
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/Ptpingest011",
        "type": "Patient"
      },
      "billablePeriod": {
        "start": "2016-02-29T00:00:00-07:00",
        "end": "2016-02-29T00:00:00-07:00"
      },
      "created": "2017-03-09T00:00:00-07:00",
      "enterer": {
        "reference": "Practitioner/e93beb55-2875-5e12-ba63-714487d42495"
      },
      "insurer": {
        "reference": "Organization/Orgingest011"
      },
      "provider": {
        "reference": "Organization/Orgingest011"
      },
      "priority": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/processpriority",
            "code": "normal",
            "display": "Normal"
          }
        ]
      }
    }
  ]
}
```

```

    },
    "outcome": "queued",
    "careTeam": [
      {
        "sequence": 1,
        "provider": {
          "reference": "PractitionerRole/Pracroleingest011"
        },
        "role": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claimcareteamrole",
              "code": "performing",
              "display": "Servicing or Rendering provider"
            }
          ]
        }
      }
    ],
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "admissionperiod",
              "display": "Admission Period"
            }
          ]
        },
        "timingPeriod": {
          "start": "2016-02-29T00:00:00-07:00"
        }
      },
      {
        "sequence": 2,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "clmrecvddate",
              "display": "clmrecvddate"
            }
          ]
        },
        "timingDate": "2016-03-09"
      },
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "typeofbill",
              "display": "Type of Bill"
            }
          ]
        },
        "code": {
          "text": "77A1"
        }
      },
      {
        "sequence": 4,
        "category": {
          "coding": [

```

```

        {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "pointoforigin",
            "display": "Point Of Origin"
        }
    ],
    },
    "code": {
        "text": "9"
    }
},
{
    "sequence": 5,
    "category": {
        "coding": [
            {
                "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                "code": "admtpe",
                "display": "admtpe"
            }
        ],
        "text": "9"
    }
},
{
    "sequence": 6,
    "category": {
        "coding": [
            {
                "system": "http://www.nubc.org/priority-type-of-admission-or-visit",
                "code": "9",
                "display": "admtpe"
            }
        ],
        "text": "9"
    }
},
{
    "sequence": 6,
    "category": {
        "coding": [
            {
                "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                "code": "discharge-status",
                "display": "discharge-status"
            }
        ],
        "text": "01"
    }
},
{
    "sequence": 6,
    "category": {
        "coding": [
            {
                "system": "http://www.nubc.org/patient-discharge",
                "code": "01",
                "display": "discharge-status"
            }
        ],
        "text": "01"
    }
},
],
"diagnosis": [
    {
        "sequence": 1,
        "diagnosisCodeableConcept": {
            "text": "F1010"
        },
        "type": [
            {
                "text": "other"
            }
        ]
    }
],
},

```

```

    {
      "sequence": 2,
      "diagnosisCodeableConcept": {
        "text": "F331"
      },
      "type": [
        {
          "text": "other"
        }
      ]
    }
  ],
  "insurance": [
    {
      "focal": false,
      "coverage": {
        "reference": "Coverage/Covingest011"
      }
    },
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Covingest011"
      }
    }
  ],
  "item": [
    {
      "sequence": 1,
      "revenue": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
            "code": "0450"
          }
        ]
      },
      "category": {
        "text": "medical"
      },
      "productOrService": {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "712003",
            "display": "Closed chest suction"
          }
        ]
      },
      "servicedPeriod": {
        "start": "2016-02-29T00:00:00-07:00",
        "end": "2016-02-29T00:00:00-07:00"
      },
      "locationCodeableConcept": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-serviceplace",
            "code": "11",
            "display": "Office"
          }
        ]
      },
      "quantity": {
        "value": 1
      },
      "net": {
        "value": 188.66
      }
    }
  ],
  "total": [

```

```

        {
          "category": {
            "text": "eligible"
          },
          "amount": {
            "value": 189
          }
        }
      ]
    },
    {
      "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOB532114-1",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "EOB532114-1",
        "meta": {
          "versionId": "1626754459919",
          "lastUpdated": "2021-09-29T18:57:16.412+05:30",
          "source": "ODS",
          "profile": [
            "http://hl7.org/fhir/us/car/StructureDefinition/car-in-bb-explanationofbenefit-
professional-nonclinician"
          ],
          "tag": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/common-tags",
              "code": "user-request-id",
              "display": "e47ecd03-7ea5-4cb6-8278-97a04678ab48[1]"
            },
            {
              "code": "SecurityLabelStamped"
            }
          ]
        },
        "identifier": [
          {
            "use": "official",
            "type": {
              "text": "Claim number"
            },
            "system": "http://Molinahealthcare.com/Claim",
            "value": "19316297955",
            "period": {
              "start": "2019-10-09T00:00:00+05:30",
              "end": "2019-10-09T00:00:00+05:30"
            }
          },
          {
            "use": "official",
            "type": {
              "text": "TBClaim Reference Number"
            },
            "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
            "value": "MOHPRF19AL383800",
            "period": {
              "start": "2019-10-09T00:00:00+05:30",
              "end": "2019-10-09T00:00:00+05:30"
            }
          },
          {
            "use": "official",
            "type": {
              "text": "PATIENT ACCOUNT NUMBER"
            },
            "system": "http://terminology.hl7.org/CodeSystem/v2-0204",
            "value": "MOHPRF19AL383800",
            "period": {
              "start": "2019-10-09T00:00:00+05:30",
              "end": "2019-10-09T00:00:00+05:30"
            }
          }
        ]
      }
    }
  ]
}

```



```

    }
  ],
  "status": "active",
  "type": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
        "code": "professional-nonclinician",
        "display": "Professional or Non-Clinician"
      }
    ]
  },
  "text": "Professional or Non-Clinician"
},
"use": "claim",
"patient": {
  "reference": "Patient/Ptpingest011",
  "type": "Patient"
},
"billablePeriod": {
  "start": "2019-10-09T00:00:00+05:30",
  "end": "2019-10-09T00:00:00+05:30"
},
"created": "2019-10-09T00:00:00+05:30",
"enterer": {
  "reference": "ACME234505"
},
"insurer": {
  "reference": "Organization/ACME234505"
},
"provider": {
  "reference": "Organization/ACME234505"
},
"priority": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/processpriority",
      "code": "normal",
      "display": "Normal"
    }
  ]
},
"claim": {
  "reference": "Claim/CA-19316297955-MD"
},
"outcome": "complete",
"supportingInfo": [
  {
    "sequence": 1,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
          "code": "clmrecvddate",
          "display": "clmrecvddate"
        }
      ]
    },
    "text": "clmrecvddate"
  },
  {
    "timingDate": "2019-11-12"
  }
],
"diagnosis": [
  {
    "sequence": 1,
    "diagnosisCodeableConcept": {
      "text": "R68.84 : Jaw pain"
    },
    "type": [
      {
        "coding": [

```

```

        {
            "system": "http://snomed.info/sct",
            "code": "principal",
            "display": "principal"
        }
    ]
}
],
{
    "sequence": 1,
    "diagnosisCodeableConcept": {
        "text": "R68.84 : Jaw pain"
    },
    "type": [
        {
            "coding": [
                {
                    "system": "http://snomed.info/sct",
                    "code": "principal",
                    "display": "principal"
                }
            ]
        }
    ]
}
],
"procedure": [
    {
        "sequence": 1,
        "date": "2019-10-09T00:00:00+05:30",
        "procedureCodeableConcept": {
            "text": "70330 : RADEX TEMPOROMANDBLE JT OPN AND CLSD MOUTH BILAT"
        }
    }
],
"insurance": [
    {
        "focal": true,
        "coverage": {
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        }
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                    "system": "urn:oid:2.16.840.1.113883.6.285",
                    "code": "76937",
                    "display": "US VASC ACCESS SITS VSL PATENCY NDL ENTRY"
                }
            ]
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            "end": "2019-10-09T00:00:00+05:30"
        },
        "locationCodeableConcept": {
            "coding": [
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                    "system": "https://www.cms.gov/Medicare/Coding/place-of-service-codes
/Place_of_Service_Code_Set",
                    "code": "11",
                    "display": "Office"
                }
            ]
        }
    }
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          "coding": [
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              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
              "code": "otherbenefitpaymentstatus",
              "display": "other benefit payment status"
            }
          ]
        }
      }
    ],
    "total": [
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        "category": {
          "coding": [
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              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
              "code": "paymentamount",
              "display": "payment amount"
            }
          ]
        },
        "amount": {
          "value": 0
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      }
    ]
  },
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    "resource": {
      "resourceType": "ExplanationOfBenefit",
      "id": "EOBCLt04",
      "meta": {
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        "lastUpdated": "2021-08-01T00:32:24.1278821-06:00",
        "source": "TZF",
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outpatient-facility"
        ],
        "tag": [
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            "system": "http://terminology.hl7.org/CodeSystem/common-tags",
            "code": "user-request-id",
            "display": "ef6ea0f8-d2f4-431b-ab08-e5f4e6c591e1[1]"
          },
          {
            "code": "SecurityLabelStamped"
          }
        ]
      },
      "identifier": [
        {
          "use": "official",
          "type": {
            "text": "ClaimID"
          },
          "value": "EOBCLt04"
        }
      ],
      "status": "active",
      "type": {
        "coding": [
          {

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        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
        "code": "outpatient-facility",
        "display": "Outpatient Facility"
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  "use": "claim",
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    "type": "Patient"
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  },
  "created": "2017-01-13T00:00:00-07:00",
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    "reference": "Practitioner/1847202b-c4de-5941-b852-3cc7ca638106"
  },
  "insurer": {
    "reference": "Organization/Orgingest011"
  },
  "provider": {
    "reference": "Organization/Orgingest011"
  },
  "priority": {
    "coding": [
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        "system": "http://terminology.hl7.org/CodeSystem/processpriority",
        "code": "normal",
        "display": "Normal"
      }
    ]
  },
  "related": [
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      "claim": {
        "reference": "Claim/Clmingest011"
      },
      "relationship": {
        "coding": [
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            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
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            "display": "Prior claim"
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        ]
      },
      "reference": {
        "value": "20522053"
      }
    }
  ],
  "referral": {
    "reference": "ServiceRequest/"
  },
  "outcome": "complete",
  "careTeam": [
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      "provider": {
        "reference": "PractitionerRole/Pracroleingest011"
      },
      "role": {
        "coding": [
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            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claimcareteamrole",
            "code": "performing",
            "display": "Servicing or Rendering provider"
          }
        ]
      }
    }
  ]
}

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    }
  ]
}
],
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claiminformationcategory",
          "code": "typeofbill",
          "display": "Type of Bill"
        }
      ]
    },
    "code": {
      "text": "0771"
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  },
  {
    "sequence": 2,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
          "code": "billingnetworkcontractingstatus",
          "display": "billingnetworkcontractingstatus"
        }
      ]
    },
    "code": {
      "text": "I : contracted"
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  },
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    "sequence": 3,
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          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
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          "display": "clmrecvddate"
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      ]
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      }
    ]
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    "type": [

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    ],
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{
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        "coverage": {
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        }
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        "coverage": {
            "reference": "Coverage/Covingest011"
        }
    }
],
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                    "text": "allowedunits"
                },
                "value": 0
            },
            {
                "category": {
                    "text": "copay"
                },
                "amount": {
                    "value": 0
                }
            },
            {
                "category": {
                    "text": "eligible"
                }
            }
        ]
    }
]

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    },  
    "amount": {  
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    },  
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  },  
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    },  
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    },  
    "amount": {  
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  },  
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    "category": {
```

```

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    }
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    }
  ]
}

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    },
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      "text": "paidtopatient"
    },
    "amount": {
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  {
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  "productOrService": {
    "text": "96372"
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  {
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    "amount": {
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```

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      "category": {
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      "value": 0
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    {
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      },
      "amount": {
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  ]
}

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```
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    {
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      },
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        "text": "noncovered"
      },
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    {
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        "text": "paidtopatient"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "paidtoprovider"
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "text": "memberliability"
      },
      "amount": {
        "value": 0
      }
    }
  ],
  {
    "category": {
      "text": "memberliability"
    },
    "amount": {
      "value": 0
    }
  }
}
```

```

        }
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        "text": "benefit"
      },
      "amount": {
        "value": 138
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        "text": "paidtoprovider"
      },
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      }
    }
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    "adjustment": {
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    "amount": {
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    "identifier": {
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    }
  }
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{
  "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/Eobingest011",
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    "resourceType": "ExplanationOfBenefit",
    "id": "Eobingest011",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2021-07-20T23:36:02.393+00:00",
      "profile": [
        "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit"
      ],
      "tag": [
        {
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",

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        "display": "b673c26a-fa75-44b6-a8cb-ccf2a19d35cc\t\t\t1"
      }
    ]
  },
  "identifier": [
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identifier",
      "value": "4E93-BE91-EAC1977941A8"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "Eobingest011"
    }
  ],
  "status": "active",
  "type": {
    "coding": [
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        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
        "code": "inpatient-facility",
        "display": "InpatientFacility"
      }
    ]
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/Ptpingest011"
  },
  "billablePeriod": {
    "start": "2017-04-05",
    "end": "2017-04-14"
  },
  "created": "2017-04-15",
  "insurer": {
    "reference": "Organization/Orgingest011"
  },
  "provider": {
    "reference": "Organization/Orgingest011"
  },
  "outcome": "complete",
  "careTeam": [
    {
      "sequence": 1,
      "provider": {
        "reference": "Practitioner/Pracingest011"
      },
      "responsible": true,
      "role": {
        "coding": [
          {
            "code": "supervising",
            "display": "AttendingorSupervisingprovider"
          }
        ]
      }
    }
  ],
  "supportingInfo": [
    {
      "sequence": 1,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "billingnetworkcontractingstatus"
          }
        ]
      }
    }
  ]
}

```

```

    },
    {
      "sequence": 2,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "attendingnetworkcontractingstatus"
          }
        ]
      }
    },
    {
      "sequence": 3,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
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            "code": "clmrecvddate"
          }
        ]
      },
      "timingDate": "2017-04-12"
    },
    {
      "sequence": 4,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "typeofservice"
          }
        ]
      }
    },
    {
      "sequence": 5,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "tob-typeoffacility"
          }
        ]
      }
    },
    {
      "sequence": 6,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "tob-billclassification"
          }
        ]
      }
    },
    {
      "sequence": 7,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "tob-frequency"
          }
        ]
      }
    }
  ],
  "timingDate": "2017-04-12"
}

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```

    ]
  },
  {
    "sequence": 8,
    "category": {
      "coding": [
        {
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claiminformationcategory",
          "code": "admsrc"
        }
      ]
    }
  }
],
"diagnosis": [
  {
    "sequence": 1,
    "diagnosisCodeableConcept": {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "A30.1",
          "display": "Tuberculoidleprosy"
        }
      ]
    },
    "type": [
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        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-diagnostype",
            "code": "principal",
            "display": "Principaldiagnosis"
          }
        ]
      }
    ]
  }
],
"procedure": [
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    "type": [
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        "coding": [
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            "system": "http://terminology.hl7.org/CodeSystem/ex-procedure-type",
            "code": "primary"
          }
        ]
      }
    ],
    "date": "2017-04-05",
    "procedureCodeableConcept": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/sid/ex-icd-10-procedures",
          "code": "3E00X28",
          "display": "Introduction of Oxazolidinones into Skin and Mucous
Membranes,ExternalApproach"
        }
      ]
    }
  }
],
"item": [
  {
    "sequence": 1,
    "careTeamSequence": [

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  ],
  "procedureSequence": [
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  ],
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    1
  ],
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        "code": "0450"
      }
    ]
  },
  "category": {
    "coding": [
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        "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
        "code": "1",
        "display": "MedicalCare"
      }
    ]
  },
  "productOrService": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
        "code": "1101",
        "display": "Exam,comp,primary"
      }
    ]
  },
  "quantity": {
    "value": 6
  },
  "adjudication": [
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "submitted"
          }
        ]
      },
      "amount": {
        "value": 8000
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "eligible"
          }
        ]
      },
      "amount": {
        "value": 8000
      }
    },
    {
      "category": {
        "coding": [

```

```

        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "deductible"
      }
    ]
  },
  "amount": {
    "value": 5000
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "copay"
      }
    ]
  },
  "amount": {
    "value": 100
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "benefit"
      }
    ]
  },
  "amount": {
    "value": 2400
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "tax"
      }
    ]
  },
  "amount": {
    "value": 0
  }
}
]
},
{
  "sequence": 2,
  "careTeamSequence": [
    1
  ],
  "diagnosisSequence": [
    2
  ],
  "procedureSequence": [
    1
  ],
  "informationSequence": [
    1
  ],
  "revenue": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
        "code": "0450"
      }
    ]
  }
}
]

```

```

    },
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
          "code": "1",
          "display": "MedicalCare"
        }
      ]
    },
  },
  "productOrService": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
        "code": "1101",
        "display": "Exam,comp,primary"
      }
    ]
  },
  "quantity": {
    "value": 2
  },
  "adjudication": [
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "submitted"
          }
        ]
      },
      "amount": {
        "value": 750
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "eligible"
          }
        ]
      },
      "amount": {
        "value": 0
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "deductible"
          }
        ]
      },
      "amount": {
        "value": 750
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "benefit"
          }
        ]
      }
    }
  ],

```

```

        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "copay"
        },
        "amount": {
          "value": 750
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "tax"
            }
          ]
        },
        "amount": {
          "value": 0
        }
      }
    ]
  },
  {
    "sequence": 3,
    "careTeamSequence": [
      1
    ],
    "diagnosisSequence": [
      2
    ],
    "procedureSequence": [
      1
    ],
    "informationSequence": [
      1
    ],
    "revenue": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
          "code": "0370"
        }
      ]
    },
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
          "code": "1",
          "display": "MedicalCare"
        }
      ]
    },
    "productOrService": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
          "code": "1205",
          "display": "Exam,emergency"
        }
      ]
    },
    "quantity": {
      "value": 2
    },
    "adjudication": [

```

```
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "submitted"
      }
    ]
  },
  "amount": {
    "value": 250
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "eligible"
      }
    ]
  },
  "amount": {
    "value": 0
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "deductible"
      }
    ]
  },
  "amount": {
    "value": 250
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "benefit"
      }
    ]
  },
  "amount": {
    "value": 0
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "copay"
      }
    ]
  },
  "amount": {
    "value": 250
  }
},
{
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/adjudication",
        "code": "tax"
      }
    ]
  }
}
```

```
        ]
      },
      "amount": {
        "value": 0
      }
    ]
  },
  "adjudication": [
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "submitted"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "eligible"
          }
        ]
      },
      "amount": {
        "value": 8000
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "deductible"
          }
        ]
      },
      "amount": {
        "value": 5000
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "copay"
          }
        ]
      },
      "amount": {
        "value": 100
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "benefit"
          }
        ]
      }
    }
  ]
}
```

```

        },
        "amount": {
            "value": 2400
        }
    },
    {
        "category": {
            "coding": [
                {
                    "system": "http://terminology.hl7.org/CodeSystem/adjudication",
                    "code": "tax"
                }
            ]
        },
        "amount": {
            "value": 0
        }
    }
],
"total": [
    {
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                    "code": "submittedamount"
                }
            ]
        },
        "amount": {
            "value": 9000
        }
    },
    {
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                    "code": "allowedamount"
                }
            ]
        },
        "amount": {
            "value": 8000
        }
    },
    {
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                    "code": "deductibleamount"
                }
            ]
        },
        "amount": {
            "value": 5000
        }
    },
    {
        "category": {
            "coding": [
                {
                    "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                    "code": "coinsuranceamount"
                }
            ]
        }
    }
]

```

```

    },
    "amount": {
      "value": 80
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code": "copayamount"
        }
      ]
    },
    "amount": {
      "value": 100
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code": "noncoveredamount"
        }
      ]
    },
    "amount": {
      "value": 1000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code": "paymentamount"
        }
      ]
    },
    "amount": {
      "value": 2400
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
          "code": "patientpayamount"
        }
      ]
    },
    "amount": {
      "value": 6600
    }
  }
],
"payment": {
  "type": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-paymenttype",
        "code": "partial"
      }
    ]
  }
},

```



```
    "date": "2017-05-12"
  }
}
]
```

---

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# ExplanationOfBenefit - Professional NonClinician

## Use Case

A member downloads a mobile application and authorizes it to access their EOB data for their claims that were submitted by a provider, supplier, or other non-institutional provider for either inpatient or outpatient services. When the member loads the EOB screen in the mobile application UI, the application requests filtering criteria to limit the number of EOB's returned. The member can filter by Status, Date, and Claim ID to refine their search. The UI calls the external endpoint for the EOB. That call retrieves the EOB data and returns it in the industry-standard format . The EOB data is then translated by the mobile application for display to the member.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Name	Type	Description
<a href="#">service-date</a>	date	Select EOBs that have this date of service.  Can only be used with the Patient= query parameter.
<a href="#">type</a>	token <sup>1</sup>	Select EOBs based on the type of EOB. The following values are found in <b>type.coding.code</b> and can be:  <b>institutional</b>  <b>professional</b>  <b>pharmacy</b>  Can only be used with the Patient= query parameter.

1. A token refers to either [system][value] or [value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Supported GET Requests

- GET [base]/ExplanationOfBenefit?patient=[reference]
- GET [base]/ExplanationOfBenefit?patient=[reference]&status=XXXX

- GET [base]/ExplanationOfBenefit?patient=[reference]&status=XXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]
- GET [base]/ExplanationOfBenefit?identifier=[system]][value]
- GET [base]/ExplanationOfBenefit/[id]
- GET [base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

## Response Parameters

The response parameters for the GET method are as follows:

- [CARIN-BB- ExplanationOfBenefit- Professional-NonClinician](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/ExplanationOfBenefit?patient=[reference]

```
[base]/ExplanationOfBenefit?patient=[reference]
```

```
GET /ExplanationOfBenefit?patient=Patient1&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-pharmacy
```



```

        "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
        "reference": "Organization/Org45"
    },
    "provider": {
        "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
        {
            "sequence": 3,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                        "code": "placeofservice"
                    }
                ]
            },
            "timingDate": "2017-04-12"
        }
    ],
    "insurance": [
        {
            "focal": true,
            "coverage": {
                "reference": "Coverage/Coverage1"
            }
        }
    ],
    "total": [
        {
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
                        "code": "submittedamount"
                    }
                ]
            },
            "amount": {
                "value": 9000
            }
        }
    ]
},
{
    "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/914acb4a-1fdc-4931-b183-efbf4a6a5563",
    "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "914acb4a-1fdc-4931-b183-efbf4a6a5563",
        "meta": {
            "versionId": "1626754457332",
            "lastUpdated": "2019-12-18T22:49:23.000-05:00",
            "profile": [
                "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
pharmacy"
            ],
            "tag": [
                {
                    "system": "tranzform-apim-request-ns",
                    "code": "user-request-id",
                    "display": "8b52fd79-0a8d-47ea-b880-9f497e33e4ab\t\t\t1"
                }
            ]
        },
        "text": {

```

```

        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t<p>\n\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
    },
    "identifier": [
        {
            "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
            "value": "4E93-BE91-EAC1977941A8"
        },
        {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "914acb4a-1fdc-4931-b183-efbf4a6a5563"
        }
    ],
    "status": "active",
    "type": {
        "coding": [
            {
                "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
                "code": "pharmacy",
                "display": "pharmacy"
            }
        ]
    },
    "use": "claim",
    "patient": {
        "reference": "Patient/Patient1"
    },
    "created": "2015-02-07T13:28:17-05:00",
    "enterer": {
        "reference": "PractitionerRole/PractitionerRole1"
    },
    "insurer": {
        "reference": "Organization/Org45"
    },
    "provider": {
        "reference": "Organization/Org45"
    },
    "outcome": "complete",
    "supportingInfo": [
        {
            "sequence": 3,
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                        "code": "brandgenericcode"
                    }
                ]
            },
            "timingDate": "2017-04-12"
        }
    ],
    "insurance": [
        {
            "focal": true,
            "coverage": {
                "reference": "Coverage/Coverage1"
            }
        }
    ],
    "total": [
        {
            "category": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",

```



```

      "value": "4E93-BE91-EAC1977941A8"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "85a26580-4dc7-49ae-8ca9-03004940853a"
    }
  ],
  "status": "active",
  "type": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
        "code": "pharmacy",
        "display": "pharmacy"
      }
    ]
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/Patient1"
  },
  "created": "2015-02-07T13:28:17-05:00",
  "enterer": {
    "reference": "PractitionerRole/PractitionerRole1"
  },
  "insurer": {
    "reference": "Organization/Org45"
  },
  "provider": {
    "reference": "Organization/Org45"
  },
  "outcome": "complete",
  "supportingInfo": [
    {
      "sequence": 3,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
            "code": "placeofservice"
          }
        ]
      },
      "timingDate": "2017-04-12"
    }
  ],
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Coverage1"
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ]
}

```



```

    ]
  },
  {
    "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/914acb4a-1fdc-4931-b183-efbf4a6a5563",
    "resource": {
      "resourceType": "ExplanationOfBenefit",
      "id": "914acb4a-1fdc-4931-b183-efbf4a6a5563",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2019-12-18T22:49:23.000-05:00",
        "profile": [
          "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-explanationofbenefit-
pharmacy"
        ],
        "tag": [
          {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "8b52fd79-0a8d-47ea-b880-9f497e33e4ab\t\t\t1"
          }
        ]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\<http://www.w3.org/1999/xhtml\>\>\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
      },
      "identifier": [
        {
          "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
          "value": "4E93-BE91-EAC1977941A8"
        },
        {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "914acb4a-1fdc-4931-b183-efbf4a6a5563"
        }
      ],
      "status": "active",
      "type": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
            "code": "pharmacy",
            "display": "pharmacy"
          }
        ]
      },
      "use": "claim",
      "patient": {
        "reference": "Patient/Patient1"
      },
      "created": "2015-02-07T13:28:17-05:00",
      "enterer": {
        "reference": "PractitionerRole/PractitionerRole1"
      },
      "insurer": {
        "reference": "Organization/Org45"
      },
      "provider": {
        "reference": "Organization/Org45"
      },
      "outcome": "complete",
      "supportingInfo": [
        {
          "sequence": 3,
          "category": {
            "coding": [

```

```

        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
        "code": "brandgenericcode"
      }
    ],
    "timingDate": "2017-04-12"
  },
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Coverage1"
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ]
}

```

[base]/ExplanationOfBenefit?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

```

[base]/ExplanationOfBenefit?patient=[reference]&status=XXXX&created={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}
[date]

GET /ExplanationOfBenefit?patient=Patient1&status=active&created=ge2015-02-07&_profile=http://hl7.org/fhir
/us/carin/StructureDefinition/carin-bb-explanationofbenefit-pharmacy

{
  "resourceType": "Bundle",
  "id": "377fdf2c-54fa-4a8e-89d3-ae9ae69c7c6b",
  "meta": {
    "lastUpdated": "2021-01-27T21:39:54.633+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/ExplanationOfBenefit?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fcarin%2FStructureDefinition%2Fcarin-bb-explanationofbenefit-pharmacy&created=ge2015-02-
07&patient=Patient1&status=active"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/85a26580-4dc7-49ae-8ca9-03004940853a",
      "resource": {
        "resourceType": "ExplanationOfBenefit",

```



```

    }
  ],
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Coverage1"
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ]
},
{
  "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/914acb4a-1fdc-4931-b183-efbf4a6a5563",
  "resource": {
    "resourceType": "ExplanationOfBenefit",
    "id": "914acb4a-1fdc-4931-b183-efbf4a6a5563",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2019-12-18T22:49:23.000-05:00",
      "profile": [
        "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
pharmacy"
      ]
    },
    "tag": [
      {
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "8b52fd79-0a8d-47ea-b880-9f497e33e4ab\t\t\t1"
      }
    ]
  },
  "text": {
    "status": "generated",
    "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
  },
  "identifier": [
    {
      "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
      "value": "4E93-BE91-EAC1977941A8"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "914acb4a-1fdc-4931-b183-efbf4a6a5563"
    }
  ],
  "status": "active",
  "type": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
        "code": "pharmacy",

```

```

        "display": "pharmacy"
      }
    ]
  },
  "use": "claim",
  "patient": {
    "reference": "Patient/Patient1"
  },
  "created": "2015-02-07T13:28:17-05:00",
  "enterer": {
    "reference": "PractitionerRole/PractitionerRole1"
  },
  "insurer": {
    "reference": "Organization/Org45"
  },
  "provider": {
    "reference": "Organization/Org45"
  },
  "outcome": "complete",
  "supportingInfo": [
    {
      "sequence": 3,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "brandgenericcode"
          }
        ]
      },
      "timingDate": "2017-04-12"
    }
  ],
  "insurance": [
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Coverage1"
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ]
}

```

[base]/ExplanationOfBenefit?identifier=[system]][value]

[base]/ExplanationOfBenefit?identifier=[system]][value]

GET /ExplanationOfBenefit?identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier|914acb4a-

```
1fdc-4931-b183-efbf4a6a5563&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-
explanationofbenefit-pharmacy

{
  "resourceType": "Bundle",
  "id": "a4163441-c30c-4bde-8372-da31df802e31",
  "meta": {
    "lastUpdated": "2021-01-27T21:41:47.957+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/ExplanationOfBenefit?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fcarin%2FStructureDefinition%2Fcarin-bb-explanationofbenefit-pharmacy&identifier=com.cognizant.tranzform.
fhir.identifiers.logical-identifier%7C914acb4a-1fdc-4931-b183-efbf4a6a5563"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/ExplanationOfBenefit/914acb4a-1fdc-4931-b183-efbf4a6a5563",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "914acb4a-1fdc-4931-b183-efbf4a6a5563",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2019-12-18T22:49:23.000-05:00",
          "profile": [
            "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-explanationofbenefit-
pharmacy"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "8b52fd79-0a8d-47ea-b880-9f497e33e4ab\t\t\t1"
            }
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
        },
        "identifier": [
          {
            "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
            "value": "4E93-BE91-EAC1977941A8"
          },
          {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "914acb4a-1fdc-4931-b183-efbf4a6a5563"
          }
        ],
        "status": "active",
        "type": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
              "code": "pharmacy",
              "display": "pharmacy"
            }
          ]
        },
        "use": "claim",
        "patient": {
          "reference": "Patient/Patient1"
        }
      }
    }
  ]
}
```

```

    },
    "created": "2015-02-07T13:28:17-05:00",
    "enterer": {
      "reference": "PractitionerRole/PractitionerRole1"
    },
    },
    "insurer": {
      "reference": "Organization/Org45"
    },
    },
    "provider": {
      "reference": "Organization/Org45"
    },
    },
    "outcome": "complete",
    "supportingInfo": [
      {
        "sequence": 3,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "brandgenericcode"
            }
          ]
        },
        "timingDate": "2017-04-12"
      }
    ],
    "insurance": [
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Coverage1"
        }
      }
    ],
    "total": [
      {
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
adjudicationcategory",
              "code": "submittedamount"
            }
          ]
        },
        "amount": {
          "value": 9000
        }
      }
    ]
  }
}

```

### [base]/ExplanationOfBenefit/[id]

```

[base]/ExplanationOfBenefit/[id]

GET https://<datahub_server>/ExplanationOfBenefit/EOB532114-1

{
  "resourceType": "ExplanationOfBenefit",
  "id": "EOB532114-1",
  "meta": {
    "versionId": "1626754458349",
    "lastUpdated": "2021-09-29T18:57:16.412+05:30",

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```

    "source" : "ODS",
    "profile" : [
      "http://hl7.org/fhir/us/car/StructureDefinition/car-in-bb-explanationofbenefit-professional-
nonclinician"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "e47ecd03-7ea5-4cb6-8278-97a04678ab48[1]"
      },
      {
        "code" : "SecurityLabelStamped"
      }
    ]
  },
  "identifier" : [
    {
      "use" : "official",
      "type" : {
        "text" : "Claim number"
      },
      "system" : "http://Molinahealthcare.com/Claim",
      "value" : "19316297955",
      "period" : {
        "start" : "2019-10-09T00:00:00+05:30",
        "end" : "2019-10-09T00:00:00+05:30"
      }
    },
    {
      "use" : "official",
      "type" : {
        "text" : "TBClaim Reference Number"
      },
      "system" : "http://terminology.hl7.org/CodeSystem/v2-0203",
      "value" : "MOHPRF19AL383800",
      "period" : {
        "start" : "2019-10-09T00:00:00+05:30",
        "end" : "2019-10-09T00:00:00+05:30"
      }
    },
    {
      "use" : "official",
      "type" : {
        "text" : "PATIENT ACCOUNT NUMBER"
      },
      "system" : "http://terminology.hl7.org/CodeSystem/v2-0204",
      "value" : "MOHPRF19AL383800",
      "period" : {
        "start" : "2019-10-09T00:00:00+05:30",
        "end" : "2019-10-09T00:00:00+05:30"
      }
    }
  ],
  "status" : "active",
  "type" : {
    "coding" : [
      {
        "system" : "http://hl7.org/fhir/us/car/CodeSystem/car-in-bb-claim-type",
        "code" : "professional-nonclinician",
        "display" : "Professional or Non-Clinician"
      }
    ],
    "text" : "Professional or Non-Clinician"
  },
  "use" : "claim",
  "patient" : {
    "reference" : "Patient/Ptpingest0110",
    "type" : "Patient"
  },
  "billablePeriod" : {

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    "start" : "2019-10-09T00:00:00+05:30",
    "end" : "2019-10-09T00:00:00+05:30"
  },
  "created" : "2019-10-09T00:00:00+05:30",
  "enterer" : {
    "reference" : "ACME234505"
  },
  "insurer" : {
    "reference" : "Organization/ACME234505"
  },
  "provider" : {
    "reference" : "Organization/ACME234505"
  },
  "priority" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/processpriority",
        "code" : "normal",
        "display" : "Normal"
      }
    ]
  },
  "claim" : {
    "reference" : "Claim/CA-19316297955-MD"
  },
  "outcome" : "complete",
  "supportingInfo" : [
    {
      "sequence" : 1,
      "category" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/us/carina/CodeSystem/carina-bb-claiminformationcategory",
            "code" : "clmrecvddate",
            "display" : "clmrecvddate"
          }
        ]
      },
      "text" : "clmrecvddate"
    },
    {
      "text" : "clmrecvddate"
    }
  ],
  "timingDate" : "2019-11-12"
},
],
"diagnosis" : [
  {
    "sequence" : 1,
    "diagnosisCodeableConcept" : {
      "text" : "R68.84 : Jaw pain"
    },
    "type" : [
      {
        "coding" : [
          {
            "system" : "http://snomed.info/sct",
            "code" : "principal",
            "display" : "principal"
          }
        ]
      }
    ]
  }
],
{
  "sequence" : 1,
  "diagnosisCodeableConcept" : {
    "text" : "R68.84 : Jaw pain"
  },
  "type" : [
    {
      "coding" : [
        {
          "system" : "http://snomed.info/sct",
          "code" : "principal",

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        "display" : "principal"
      }
    ]
  }
},
"procedure" : [
  {
    "sequence" : 1,
    "date" : "2019-10-09T00:00:00+05:30",
    "procedureCodeableConcept" : {
      "text" : "70330 : RADEX TEMPOROMANDBLE JT OPN AND CLSD MOUTH BILAT"
    }
  }
],
"insurance" : [
  {
    "focal" : true,
    "coverage" : {
      "reference" : "Coverage/CA-CMC150168119991-MD"
    }
  }
],
"item" : [
  {
    "sequence" : 1,
    "productOrService" : {
      "coding" : [
        {
          "system" : "urn:oid:2.16.840.1.113883.6.285",
          "code" : "76937",
          "display" : "US VASC ACCESS SITS VSL PATENCY NDL ENTRY"
        }
      ]
    },
    "servicedPeriod" : {
      "start" : "2019-10-09T00:00:00+05:30",
      "end" : "2019-10-09T00:00:00+05:30"
    },
    "locationCodeableConcept" : {
      "coding" : [
        {
          "system" : "https://www.cms.gov/Medicare/Coding/place-of-service-codes
/Place_of_Service_Code_Set",
          "code" : "11",
          "display" : "Office"
        }
      ]
    }
  }
],
"adjudication" : [
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-adjudicationcategory",
          "code" : "otherbenefitpaymentstatus",
          "display" : "other benefit payment status"
        }
      ]
    }
  }
],
"total" : [
  {
    "category" : {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-adjudicationcategory",

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        "code" : "paymentamount",
        "display" : "payment amount"
      }
    ]
  },
  "amount" : {
    "value" : 0
  }
}
]
}

```

[base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

```

[base]/ExplanationOfBenefit?patient=[reference]&service-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]

GET /ExplanationOfBenefit?patient=Ptpingest011&service-date=ge2015-08-24&service-date=le2019-10-09

{
  "resourceType": "Bundle",
  "id": "3eb35c6d-e485-4ef3-895b-f0364411ed43",
  "meta": {
    "lastUpdated": "2022-04-05T15:21:06.051+00:00"
  },
  "type": "searchset",
  "total": 4,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub-server>/ExplanationOfBenefit?patient=Ptpingest011&service-date=ge2015-
08-24&service-date=le2019-10-09"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/EOB532114-3",
      "resource": {
        "resourceType": "ExplanationOfBenefit",
        "id": "EOB532114-3",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2021-08-01T00:32:24.1278731-06:00",
          "source": "TZF",
          "profile": [
            "http://hl7.org/fhir/us/car/StructureDefinition/car-inpatient-facility"
          ],
          "tag": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/common-tags",
              "code": "user-request-id",
              "display": "5b76d93e-c85d-4cc6-84a5-2bde88000ddb[1]"
            },
            {
              "code": "SecurityLabelStamped"
            }
          ]
        },
        "identifier": [
          {
            "use": "official",
            "type": {
              "text": "ClaimID"
            },
            "value": "EOBclt01"
          }
        ],

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```

    "status": "cancelled",
    "type": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
          "code": "inpatient-facility",
          "display": "Inpatient Facility"
        }
      ]
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Ptpingest011",
      "type": "Patient"
    },
    "billablePeriod": {
      "start": "2016-02-29T00:00:00-07:00",
      "end": "2016-02-29T00:00:00-07:00"
    },
    "created": "2017-03-09T00:00:00-07:00",
    "enterer": {
      "reference": "Practitioner/e93beb55-2875-5e12-ba63-714487d42495"
    },
    "insurer": {
      "reference": "Organization/Orgingest011"
    },
    "provider": {
      "reference": "Organization/Orgingest011"
    },
    "priority": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/processpriority",
          "code": "normal",
          "display": "Normal"
        }
      ]
    },
    "outcome": "queued",
    "careTeam": [
      {
        "sequence": 1,
        "provider": {
          "reference": "PractitionerRole/Pracroleingest011"
        },
        "role": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claimcareteamrole",
              "code": "performing",
              "display": "Servicing or Rendering provider"
            }
          ]
        }
      }
    ],
    "supportingInfo": [
      {
        "sequence": 1,
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
              "code": "admissionperiod",
              "display": "Admission Period"
            }
          ]
        }
      }
    ],
    "timingPeriod": {

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        "start": "2016-02-29T00:00:00-07:00"
      }
    },
    {
      "sequence": 2,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
            "code": "clmrecvddate",
            "display": "clmrecvddate"
          }
        ]
      },
      "timingDate": "2016-03-09"
    },
    {
      "sequence": 3,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
            "code": "typeofbill",
            "display": "Type of Bill"
          }
        ]
      },
      "code": {
        "text": "77A1"
      }
    },
    {
      "sequence": 4,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
            "code": "pointoforigin",
            "display": "Point Of Origin"
          }
        ]
      },
      "code": {
        "text": "9"
      }
    },
    {
      "sequence": 5,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
            "code": "admttype",
            "display": "admttype"
          }
        ]
      },
      "code": {
        "coding": [
          {
            "system": "http://www.nubc.org/priority-type-of-admission-or-visit",
            "code": "9",
            "display": "admttype"
          }
        ],
        "text": "9"
      }
    }
  }
}

```

```

    },
    {
      "sequence": 6,
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
            "code": "discharge-status",
            "display": "discharge-status"
          }
        ]
      },
      "code": {
        "coding": [
          {
            "system": "http://www.nubc.org/patient-discharge",
            "code": "01",
            "display": "discharge-status"
          }
        ],
        "text": "01"
      }
    }
  ],
  "diagnosis": [
    {
      "sequence": 1,
      "diagnosisCodeableConcept": {
        "text": "F1010"
      },
      "type": [
        {
          "text": "other"
        }
      ]
    },
    {
      "sequence": 2,
      "diagnosisCodeableConcept": {
        "text": "F331"
      },
      "type": [
        {
          "text": "other"
        }
      ]
    }
  ],
  "insurance": [
    {
      "focal": false,
      "coverage": {
        "reference": "Coverage/Covingest011"
      }
    },
    {
      "focal": true,
      "coverage": {
        "reference": "Coverage/Covingest011"
      }
    }
  ],
  "item": [
    {
      "sequence": 1,
      "revenue": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
            "code": "0450"
          }
        ]
      }
    }
  ]
}

```

```

    }
  ],
  "category": {
    "text": "medical"
  },
  "productOrService": {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "712003",
        "display": "Closed chest suction"
      }
    ]
  },
  "servicedPeriod": {
    "start": "2016-02-29T00:00:00-07:00",
    "end": "2016-02-29T00:00:00-07:00"
  },
  "locationCodeableConcept": {
    "coding": [
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        "system": "http://terminology.hl7.org/CodeSystem/ex-serviceplace",
        "code": "11",
        "display": "Office"
      }
    ]
  },
  "quantity": {
    "value": 1
  },
  "net": {
    "value": 188.66
  }
},
"total": [
  {
    "category": {
      "text": "eligible"
    },
    "amount": {
      "value": 189
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  }
]
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  "resource": {
    "resourceType": "ExplanationOfBenefit",
    "id": "EOB532114-1",
    "meta": {
      "versionId": "1626754459918",
      "lastUpdated": "2021-09-29T18:57:16.412+05:30",
      "source": "ODS",
      "profile": [
        "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-explanationofbenefit-professional-nonclinician"
      ],
      "tag": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/common-tags",
          "code": "user-request-id",
          "display": "e47ecd03-7ea5-4cb6-8278-97a04678ab48[1]"
        },
        {
          "code": "SecurityLabelStamped"
        }
      ]
    }
  }
]

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    },
    "identifier": [
      {
        "use": "official",
        "type": {
          "text": "Claim number"
        },
        "system": "http://Molinahealthcare.com/Claim",
        "value": "19316297955",
        "period": {
          "start": "2019-10-09T00:00:00+05:30",
          "end": "2019-10-09T00:00:00+05:30"
        }
      },
      {
        "use": "official",
        "type": {
          "text": "TBClaim Reference Number"
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        "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
        "value": "MOHPRF19AL383800",
        "period": {
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          "end": "2019-10-09T00:00:00+05:30"
        }
      },
      {
        "use": "official",
        "type": {
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        "system": "http://terminology.hl7.org/CodeSystem/v2-0204",
        "value": "MOHPRF19AL383800",
        "period": {
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          "end": "2019-10-09T00:00:00+05:30"
        }
      }
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    "type": {
      "coding": [
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          "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
          "code": "professional-nonclinician",
          "display": "Professional or Non-Clinician"
        }
      ],
      "text": "Professional or Non-Clinician"
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Ptpingest011",
      "type": "Patient"
    },
    "billablePeriod": {
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      "end": "2019-10-09T00:00:00+05:30"
    },
    "created": "2019-10-09T00:00:00+05:30",
    "enterer": {
      "reference": "ACME234505"
    },
    "insurer": {
      "reference": "Organization/ACME234505"
    },
    "provider": {
      "reference": "Organization/ACME234505"
    },
    "priority": {
      "coding": [

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        {
          "system": "http://terminology.hl7.org/CodeSystem/processpriority",
          "code": "normal",
          "display": "Normal"
        }
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    },
    "claim": {
      "reference": "Claim/CA-19316297955-MD"
    },
    "outcome": "complete",
    "supportingInfo": [
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        "sequence": 1,
        "category": {
          "coding": [
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              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claiminformationcategory",
              "code": "clmrecvddate",
              "display": "clmrecvddate"
            }
          ],
          "text": "clmrecvddate"
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        "timingDate": "2019-11-12"
      }
    ],
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        "sequence": 1,
        "diagnosisCodeableConcept": {
          "text": "R68.84 : Jaw pain"
        },
        "type": [
          {
            "coding": [
              {
                "system": "http://snomed.info/sct",
                "code": "principal",
                "display": "principal"
              }
            ]
          }
        ]
      },
      {
        "sequence": 1,
        "diagnosisCodeableConcept": {
          "text": "R68.84 : Jaw pain"
        },
        "type": [
          {
            "coding": [
              {
                "system": "http://snomed.info/sct",
                "code": "principal",
                "display": "principal"
              }
            ]
          }
        ]
      }
    ],
    "procedure": [
      {
        "sequence": 1,
        "date": "2019-10-09T00:00:00+05:30",
        "procedureCodeableConcept": {
          "text": "70330 : RADEX TEMPOROMANDBLE JT OPN AND CLSD MOUTH BILAT"
        }
      }
    ]
  }

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    }
  ],
  "insurance": [
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      "focal": true,
      "coverage": {
        "reference": "Coverage/CA-CMC150168119991-MD"
      }
    }
  ],
  "item": [
    {
      "sequence": 1,
      "productOrService": {
        "coding": [
          {
            "system": "urn:oid:2.16.840.1.113883.6.285",
            "code": "76937",
            "display": "US VASC ACCESS SITS VSL PATENCY NDL ENTRY"
          }
        ]
      },
      "servicedPeriod": {
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        "end": "2019-10-09T00:00:00+05:30"
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      "locationCodeableConcept": {
        "coding": [
          {
            "system": "https://www.cms.gov/Medicare/Coding/place-of-service-codes
/Place_of_Service_Code_Set",
            "code": "11",
            "display": "Office"
          }
        ]
      }
    }
  ],
  "adjudication": [
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      "category": {
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          {
            "system": "http://hl7.org/fhir/us/carine/CodeSystem/carine-bb-
adjudicationcategory",
            "code": "otherbenefitpaymentstatus",
            "display": "other benefit payment status"
          }
        ]
      }
    }
  ],
  "total": [
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      "category": {
        "coding": [
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            "display": "payment amount"
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  ]
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    "id": "EOBClt04",
    "meta": {
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      "source": "TZF",
      "profile": [
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outpatient-facility"
      ],
      "tag": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/common-tags",
          "code": "user-request-id",
          "display": "ef6ea0f8-d2f4-431b-ab08-e5f4e6c591e1[1]"
        },
        {
          "code": "SecurityLabelStamped"
        }
      ]
    },
    "identifier": [
      {
        "use": "official",
        "type": {
          "text": "ClaimID"
        },
        "value": "EOBClt04"
      }
    ],
    "status": "active",
    "type": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-claim-type",
          "code": "outpatient-facility",
          "display": "Outpatient Facility"
        }
      ]
    },
    "use": "claim",
    "patient": {
      "reference": "Patient/Ptpingest011",
      "type": "Patient"
    },
    "billablePeriod": {
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      "end": "2015-08-24T00:00:00-06:00"
    },
    "created": "2017-01-13T00:00:00-07:00",
    "enterer": {
      "reference": "Practitioner/1847202b-c4de-5941-b852-3cc7ca638106"
    },
    "insurer": {
      "reference": "Organization/Orgingest011"
    },
    "provider": {
      "reference": "Organization/Orgingest011"
    },
    "priority": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/processpriority",
          "code": "normal",
          "display": "Normal"
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      ]
    }
  },
}

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    "related": [
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        "claim": {
          "reference": "Claim/Clmingest011"
        },
        "relationship": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
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              "code": "prior",
              "display": "Prior claim"
            }
          ],
          "reference": {
            "value": "20522053"
          }
        }
      },
      "referral": {
        "reference": "ServiceRequest/"
      },
      "outcome": "complete",
      "careTeam": [
        {
          "sequence": 1,
          "provider": {
            "reference": "PractitionerRole/Pracroleingest011"
          },
          "role": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claimcareteamrole",
                "code": "performing",
                "display": "Servicing or Rendering provider"
              }
            ]
          }
        }
      ],
      "supportingInfo": [
        {
          "sequence": 1,
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                "code": "typeofbill",
                "display": "Type of Bill"
              }
            ]
          },
          "code": {
            "text": "0771"
          }
        },
        {
          "sequence": 2,
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
                "code": "billingnetworkcontractingstatus",
                "display": "billingnetworkcontractingstatus"
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            ]
          }
        }
      ]
    ],

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        "code": {
          "text": "I : contracted"
        }
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        "sequence": 3,
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          "coding": [
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              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
claiminformationcategory",
              "code": "clmrecvddate",
              "display": "clmrecvddate"
            }
          ]
        },
        "timingDate": "2015-12-02"
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    ],
    "diagnosis": [
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        "sequence": 2,
        "diagnosisCodeableConcept": {
          "text": "2532"
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        "type": [
          {
            "text": "03"
          }
        ]
      },
      {
        "sequence": 3,
        "diagnosisCodeableConcept": {
          "text": "25000"
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        "type": [
          {
            "text": "01"
          }
        ]
      },
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        "sequence": 1,
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          "text": "4019"
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        "type": [
          {
            "text": "02"
          }
        ]
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        "coverage": {
          "reference": "Coverage/Covingest011"
        }
      },
      {
        "focal": true,
        "coverage": {
          "reference": "Coverage/Covingest011"
        }
      }
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        "sequence": 4,

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},
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  "end": "2015-08-24T00:00:00-06:00"
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  "value": 0
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"adjudication": [
  {
    "category": {
      "text": "allowedunits"
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    "value": 0
  },
  {
    "category": {
      "text": "copay"
    },
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  {
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  {
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      "value": 0
    }
  },
  {
    "category": {
      "text": "noncovered"
    },
    "amount": {
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    },
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        "text": "priorpayerpaid"
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        "value": 0
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    {
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        "value": 0
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    },
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        "text": "paidtoprovider"
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        "value": 0
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    },
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        "value": 0
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    },
    {
      "category": {
        "text": "discount"
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  ]
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  "productOrService": {
    "text": "99213"
  },
  "modifier": [
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  },  
],
```



```

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          "amount": {
            "value": 137.68
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        {
          "category": {
            "text": "memberliability"
          },
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        "value": 1
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      "net": {
        "value": 0
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          "value": 0
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        {
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        },
        {
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          },
          "amount": {
            "value": 0
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      ],
    }
  ]
}

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```
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        "amount": {
          "value": 0
        }
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      {
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          "text": "noncovered"
        },
        "amount": {
          "value": 0
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        },
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        "category": {
          "text": "paidtoprovider"
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        "amount": {
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        },
        "amount": {
          "value": 0
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      {
        "category": {
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          "value": 0
        }
      }
    ]
  }
```

```
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    ],
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    },
    "productOrService": {
      "text": "J1071"
    },
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      "end": "2015-08-24T00:00:00-06:00"
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    "quantity": {
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    },
    "net": {
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      {
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      {
        "category": {
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        },
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          "value": 0
        }
      },
      {
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        },
        "amount": {
          "value": 0
        }
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        },
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        },
        "amount": {
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      {
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        },
        "amount": {
          "value": 0
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      }
    ]
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```

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        },
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          "value": 0
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      },
      {
        "category": {
          "text": "paidtopatient"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "text": "paidtoprovider"
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
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        },
        "amount": {
          "value": 0
        }
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        "amount": {
          "value": 0
        }
      }
    ]
  },
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      "amount": {
        "value": 138
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        "text": "benefit"
      },
      "amount": {
        "value": 138
      }
    },
    {
      "category": {
        "text": "paidtoprovider"
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                "amount": {
                    "value": 138
                }
            },
            ],
            "payment": {
                "type": {
                    "text": "paid"
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                "adjustment": {
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                },
                "date": "2016-01-17",
                "amount": {
                    "value": 137.68
                },
                "identifier": {
                    "value": "E"
                }
            }
        }
    },
    {
        "fullUrl": "https://<datahub-server>/ExplanationOfBenefit/Eobingest011",
        "resource": {
            "resourceType": "ExplanationOfBenefit",
            "id": "Eobingest011",
            "meta": {
                "versionId": "1626754457332",
                "lastUpdated": "2021-07-20T23:36:02.393+00:00",
                "profile": [
                    "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-explanationofbenefit"
                ],
                "tag": [
                    {
                        "system": "tranzform-apim-request-ns",
                        "code": "user-request-id",
                        "display": "b673c26a-fa75-44b6-a8cb-ccf2a19d35cc\t\t\t\t1"
                    }
                ]
            },
            "identifier": [
                {
                    "system": "http://www.bcbs.com/fhir/ns/NamingSystem/explanationOfBenefit-
identifier",
                    "value": "4E93-BE91-EAC1977941A8"
                },
                {
                    "use": "official",
                    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
                    "value": "Eobingest011"
                }
            ],
            "status": "active",
            "type": {
                "coding": [
                    {
                        "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-claim-type",
                        "code": "inpatient-facility",
                        "display": "InpatientFacility"
                    }
                ]
            },
            "use": "claim",
            "patient": {
                "reference": "Patient/Ptpingest011"
            },
            "billablePeriod": {
                "start": "2017-04-05",
                "end": "2017-04-14"
            }
        },
    },

```

```

"created": "2017-04-15",
"insurer": {
  "reference": "Organization/Orgingest011"
},
"provider": {
  "reference": "Organization/Orgingest011"
},
"outcome": "complete",
"careTeam": [
  {
    "sequence": 1,
    "provider": {
      "reference": "Practitioner/Pracingest011"
    },
    "responsible": true,
    "role": {
      "coding": [
        {
          "code": "supervising",
          "display": "AttendingorSupervisingprovider"
        }
      ]
    }
  }
],
"supportingInfo": [
  {
    "sequence": 1,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code": "billingnetworkcontractingstatus"
        }
      ]
    }
  },
  {
    "sequence": 2,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code": "attendingnetworkcontractingstatus"
        }
      ]
    }
  },
  {
    "sequence": 3,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code": "clmrecvddate"
        }
      ]
    },
    "timingDate": "2017-04-12"
  },
  {
    "sequence": 4,
    "category": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
          "code": "typeofservice"
        }
      ]
    }
  }
]

```

```

    }
  ]
},
{
  "sequence": 5,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
        "code": "tob-typeoffacility"
      }
    ]
  }
},
{
  "sequence": 6,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
        "code": "tob-billclassification"
      }
    ]
  }
},
{
  "sequence": 7,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
        "code": "tob-frequency"
      }
    ]
  }
},
{
  "sequence": 8,
  "category": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/carin/CodeSystem/carin-bb-
claiminformationcategory",
        "code": "admsrc"
      }
    ]
  }
},
],
"diagnosis": [
  {
    "sequence": 1,
    "diagnosisCodeableConcept": {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "A30.1",
          "display": "Tuberculoidleprosy"
        }
      ]
    }
  },
  "type": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-diagnostype",
          "code": "principal",

```

```

        "display": "Principaldiagnosis"
      }
    ]
  }
],
"procedure": [
  {
    "sequence": 1,
    "type": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-procedure-type",
            "code": "primary"
          }
        ]
      }
    ],
    "date": "2017-04-05",
    "procedureCodeableConcept": {
      "coding": [
        {
          "system": "http://hl7.org/fhir/sid/ex-icd-10-procedures",
          "code": "3E00X28",
          "display": "Introduction of Oxazolidinones into Skin and Mucous
Membranes, ExternalApproach"
        }
      ]
    }
  }
],
"item": [
  {
    "sequence": 1,
    "careTeamSequence": [
      1
    ],
    "diagnosisSequence": [
      2
    ],
    "procedureSequence": [
      1
    ],
    "informationSequence": [
      1
    ],
    "revenue": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
          "code": "0450"
        }
      ]
    },
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
          "code": "1",
          "display": "MedicalCare"
        }
      ]
    },
    "productOrService": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
          "code": "1101",
          "display": "Exam, comp, primary"
        }
      ]
    }
  }
]

```



```

    }
  ]
},
"quantity": {
  "value": 6
},
"adjudication": [
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "submitted"
        }
      ]
    },
    "amount": {
      "value": 8000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "eligible"
        }
      ]
    },
    "amount": {
      "value": 8000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "deductible"
        }
      ]
    },
    "amount": {
      "value": 5000
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "copay"
        }
      ]
    },
    "amount": {
      "value": 100
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "benefit"
        }
      ]
    },
    "amount": {
      "value": 2400
    }
  }
]
}

```

```

    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "tax"
          }
        ]
      },
      "amount": {
        "value": 0
      }
    }
  ],
},
{
  "sequence": 2,
  "careTeamSequence": [
    1
  ],
  "diagnosisSequence": [
    2
  ],
  "procedureSequence": [
    1
  ],
  "informationSequence": [
    1
  ],
  "revenue": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
        "code": "0450"
      }
    ]
  },
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
        "code": "1",
        "display": "MedicalCare"
      }
    ]
  },
  "productOrService": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
        "code": "1101",
        "display": "Exam,comp,primary"
      }
    ]
  },
  "quantity": {
    "value": 2
  },
  "adjudication": [
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "submitted"
          }
        ]
      },
      "amount": {
        "value": 750
      }
    }
  ]
}

```

```

    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "eligible"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "deductible"
        }
      ]
    },
    "amount": {
      "value": 750
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "benefit"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "text": "copay"
    },
    "amount": {
      "value": 750
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "tax"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  }
]
},
{
  "sequence": 3,
  "careTeamSequence": [
    1
  ],
  "diagnosisSequence": [
    2
  ]
}

```

```

],
"procedureSequence": [
  1
],
"informationSequence": [
  1
],
"revenue": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/ex-revenue-center",
      "code": "0370"
    }
  ]
},
"category": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/ex-benefitcategory",
      "code": "1",
      "display": "MedicalCare"
    }
  ]
},
"productOrService": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/ex-USCLS",
      "code": "1205",
      "display": "Exam,emergency"
    }
  ]
},
"quantity": {
  "value": 2
},
"adjudication": [
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "submitted"
        }
      ]
    },
    "amount": {
      "value": 250
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "eligible"
        }
      ]
    },
    "amount": {
      "value": 0
    }
  },
  {
    "category": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/adjudication",
          "code": "deductible"
        }
      ]
    }
  ]
]

```

```

        },
        "amount": {
          "value": 250
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "benefit"
            }
          ]
        },
        "amount": {
          "value": 0
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "copay"
            }
          ]
        },
        "amount": {
          "value": 250
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/adjudication",
              "code": "tax"
            }
          ]
        },
        "amount": {
          "value": 0
        }
      }
    ]
  },
  "adjudication": [
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "submitted"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "eligible"
          }
        ]
      },
      "amount": {

```

```

        "value": 8000
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "deductible"
          }
        ]
      },
      "amount": {
        "value": 5000
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "copay"
          }
        ]
      },
      "amount": {
        "value": 100
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "benefit"
          }
        ]
      },
      "amount": {
        "value": 2400
      }
    },
    {
      "category": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/adjudication",
            "code": "tax"
          }
        ]
      },
      "amount": {
        "value": 0
      }
    }
  ],
  "total": [
    {
      "category": {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
            "code": "submittedamount"
          }
        ]
      },
      "amount": {
        "value": 9000
      }
    }
  ],

```

```

        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "allowedamount"
              }
            ]
          },
          "amount": {
            "value": 8000
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "deductibleamount"
              }
            ]
          },
          "amount": {
            "value": 5000
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "coinsuranceamount"
              }
            ]
          },
          "amount": {
            "value": 80
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "copayamount"
              }
            ]
          },
          "amount": {
            "value": 100
          }
        },
        {
          "category": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
                "code": "noncoveredamount"
              }
            ]
          },
          "amount": {
            "value": 1000
          }
        }
      ],
      {

```

```
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
              "code": "paymentamount"
            }
          ]
        },
        "amount": {
          "value": 2400
        }
      },
      {
        "category": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/carín/CodeSystem/carín-bb-
adjudicationcategory",
              "code": "patientpayamount"
            }
          ]
        },
        "amount": {
          "value": 6600
        }
      }
    ],
    "payment": {
      "type": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/ex-paymenttype",
            "code": "partial"
          }
        ]
      },
      "date": "2017-05-12"
    }
  }
}
]
```

---

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# Goal

---

## Use Case

A member has diabetes and their provider has given them a goal of reducing their A1C blood sugar levels. The member accesses a mobile application to see how they are proceeding towards their goal. The application UI calls an external endpoint which returns the goal information in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Goal?patient=[reference]
- GET [base]/Goal[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Goal Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Goal?patient=[reference]

```
[base] / Goal ? patient = [reference]
GET /Goal?patient=35

{
  "resourceType": "Bundle",
  "id": "7cde4c4d-8f64-4ce4-8ae3-366593b62a5c",
  "meta": {
    "lastUpdated": "2021-01-25T00:48:00.398+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Goal?patient=35"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Goal/61",
    "resource": {
      "resourceType": "Goal",
      "id": "61",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2021-01-06T10:04:47.297+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-goal"]
      },
      "identifier": [{
        "use": "official",
        "type": {
          "coding": [{
```

```

        "system": "system",
        "code": "code",
        "display": "display"
      }
    ],
    "text": "textString"
  },
  "period": {
    "start": "2020-06-26",
    "end": "2021-07-19"
  },
  "assigner": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }
}, {
  "use": "official",
  "type": {
    "coding": [{
      "system": "system",
      "code": "code",
      "display": "display"
    }
  ],
  "text": "textString"
},
  "period": {
    "start": "2020-12-07",
    "end": "2021-02-05"
  },
  "assigner": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  }
}, {
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "61"
}
],
"lifecycleStatus": "active",
"achievementStatus": {
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
],
  "text": "textString"
},
"category": [{
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
],
  "text": "textString"
}, {
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
],
  "text": "textString"
}
],
"priority": {
  "coding": [{
    "system": "system",

```

```

        "code": "code",
        "display": "display"
      }
    ],
    "text": "textString"
  },
  "description": {
    "coding": [{
      "system": "system",
      "code": "code",
      "display": "display"
    }
  ],
  "text": "textString"
},
"subject": {
  "reference": "Patient/35"
},
"startDate": "2021-01-06",
"target": [{
  "measure": {
    "coding": [{
      "system": "system",
      "code": "code",
      "display": "display"
    }
  ],
  "text": "textString"
},
  "detailQuantity": {
    "value": 20.66,
    "unit": "Quantity Unit"
  },
  "dueDate": "2021-01-06"
}],
"statusDate": "2021-01-06",
"statusReason": "Goal Status Reason",
"expressedBy": {
  "reference": "Reference/Id",
  "display": "Reference/Id"
},
"addresses": [{
  "reference": "Reference/Id",
  "display": "Reference/Id"
}, {
  "reference": "Reference/Id",
  "display": "Reference/Id"
}
],
"note": [{
  "authorReference": {
    "reference": "Reference/Id",
    "display": "Reference/Id"
  },
  "time": "2000-10-23T00:00:00+00:00",
  "text": "AnnotationText"
}
],
"outcomeCode": [{
  "coding": [{
    "system": "system",
    "code": "code",
    "display": "display"
  }
  ],
  "text": "textString"
}, {
  "coding": [{
    "system": "system",
    "code": "code",

```



---

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# HealthcareService

---

## Use Case

The Healthcare Service endpoint is used to retrieve a list of the services offered by an organization or practitioner at a given location. Users can retrieve all services offered by a provider for which a request was made. They can limit the result of the search by name, specialty, and other parameters.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Query Parameter	Type	Description
<a href="#">available-days</a>	token <sup>1</sup>	Days available
<a href="#">available-end-time</a>	token	Available end time
<a href="#">available-start-time</a>	token	Available start time
<a href="#">characteristic</a>	token	Select HealthcareServices with the specified characteristic
<a href="#">coverage-area</a>	reference	Select services available in a region described by the specified location
<a href="#">eligibility</a>	token	Select services with the specified eligibility requirements
<a href="#">endpoint</a>	reference	Select HealthcareServices with the specified endpoint
<a href="#">identifier-assigner</a>	reference	Select HealthcareServices with an identifier issued by the specified organization
<a href="#">identifier</a>	token	Select HealthcareServices with the specified identifier
<a href="#">location</a>	reference	Select HealthcareServices available at the specified location
<a href="#">name</a>	string	Select HealthcareServices with the specified name
<a href="#">new-patient-network</a>	reference	Select HealthcareServices that are part of the specified network and are/are not accepting new patients
<a href="#">new-patient</a>	token	Select HealthcareServices that are/are not accepting new patients
<a href="#">organization</a>	reference	Select HealthcareServices provided by the specified organization
<a href="#">service-category</a>	token	Select HealthcareServices providing the specified category of services
<a href="#">service-type</a>	token	Select HealthcareServices of the specified type
<a href="#">specialty</a>	token	Select services associated with the specified specialty
<a href="#">via-intermediary</a>	reference	Select HealthcareServices with contact information available through the specified intermediary

1. A token refers to either [system][value] or [ value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.



## Sample GET Requests

- GET [base]/HealthcareService?location=[reference]
- GET [base]/HealthcareService?location=[reference]&acceptingPatients=[boolean]
- GET [base]/HealthcareService?name=[name]
- GET [base]/HealthcareService?identifier=[system]][value]
- GET [base]/HealthcareService?specialty=[system]][value]&acceptingPatients=[boolean]
- GET [base]/HealthcareService/[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [Provider Directory - Pdex - Plan Net - Healthcare Service](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/HealthcareService?location=[reference]

```
[base]/HealthcareService?location=[reference]

GET /HealthcareService?location=HospLoc1

{
  "resourceType": "Bundle",
  "id": "cf6af02e-3c4f-45e2-8a59-6aa9df4e37b5",
  "meta": {
    "lastUpdated": "2021-01-26T21:59:02.442+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/HealthcareService?location=HospLoc1"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/HealthcareService/BurrClinicServices",
      "resource": {
        "resourceType": "HealthcareService",
        "id": "BurrClinicServices",
        "meta": {
          "lastUpdated": "2020-07-07T13:26:22.0314215+00:00",
          "profile": [
            "http://hl7.org/fhir/StructureDefinition/HealthcareService"
          ]
        },
        "language": "en-US",
        "text": {
          "status": "extensions",
          "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b><
/p><h3>Ids</h3><table class=\"grid\"><tr><td></td></tr><tr><td>*</td></tr></table><h3>Meta</h3><table
class=\"grid\"><tr><td></td></tr><tr><td>*</td></tr></table><p><b>language</b>: en-US<
/p><blockquote><p><b>Delivery Method</b></p><h3>Urls</h3><table class=\"grid\"><tr><td></td></tr><tr><td>*<
/td></tr></table><p><b>value</b>: <span title=\"Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net
/CodeSystem/DeliveryMethodCS physical}\">Physical</span></p></blockquote><p><b>active</b>: true<
/p><p><b>providedBy</b>: <a href=\"Organization-BurrClinic.html\">Generated Summary: language: en-US; id:
NPI999; active; <span title=\"Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem/OrgTypeCS fac}
\">Facility</span>; name: Burr Clinic; ph: (111)-222-3333, https://www.burrclinic.com</a></p><p><b>category<
/b>: <span title=\"Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/HealthcareServiceCategoryCS output}\">Clinic or Outpatient Facility</span></p><p><b>specialty</b>: <span
title=\"Codes: {http://nucc.org/provider-taxonomy 207Q00000X}\">Family Medicine</span></p><p><b>location<
/b>: <a href=\"Location-HospLoc1.html\">Generated Summary: language: en-US; status: active; name: Hartford
Hospital Location 1; <span title=\"Codes: {http://terminology.hl7.org/CodeSystem/v3-RoleCode HOSP}\">
>Hospital</span>; ph: (111)-222-3333, https://www.hgh.com</a></p></div>"
        },
        "extension": [
          {
            "url": "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/delivery-
method",
            "extension": [
              {
                "url": "type",
                "valueCodeableConcept": {
                  "coding": [
                    {
                      "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net
/CodeSystem/DeliveryMethodCS",
                      "code": "physical"
                    }
                  ]
                }
              }
            ]
          }
        ]
      }
    ]
  },
  {
    "url": "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition"
  }

```

```

/newpatients",
    "extension": [
      {
        "url": "acceptingPatients",
        "valueCodeableConcept": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net
/CodeSystem/AcceptingPatientsCS",
              "code": "newpt"
            }
          ]
        }
      }
    ],
    "active": true,
    "providedBy": {
      "reference": "Organization/BurrClinic"
    },
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/HealthcareServiceCategoryCS",
            "code": "outpat"
          }
        ]
      }
    ],
    "specialty": [
      {
        "coding": [
          {
            "system": "http://nucc.org/provider-taxonomy",
            "code": "207Q00000X",
            "display": "Family Medicine"
          }
        ]
      }
    ],
    "location": [
      {
        "reference": "Location/HospLoc1"
      }
    ]
  },
  {
    "fullUrl": "https://<datahub_server>/HealthcareService/HamiltonClinicServices",
    "resource": {
      "resourceType": "HealthcareService",
      "id": "HamiltonClinicServices",
      "meta": {
        "lastUpdated": "2020-07-07T13:26:22.0314215+00:00",
        "profile": [
          "http://hl7.org/fhir/StructureDefinition/HealthcareService"
        ]
      },
      "language": "en-US",
      "text": {
        "status": "extensions",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\"><p><b>Generated Narrative</b><
/p><h3>Ids</h3><table class=\\"grid\\"><tr><td></td></tr><tr><td>*</td></tr></table><h3>Meta</h3><table
class=\\"grid\\"><tr><td></td></tr><tr><td>*</td></tr></table><p><b>language</b>: en-US<
/p><blockquote><p><b>Delivery Method</b></p><h3>Urls</h3><table class=\\"grid\\"><tr><td></td></tr><tr><td>*<
/td></tr></table><p><b>value</b>: <span title=\\"Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net
/CodeSystem/DeliveryMethodCS physical}">Physical</span></p></blockquote><p><b>active</b>: true<
/p><p><b>providedBy</b>: <a href=\\"Organization-HamiltonClinic.html\\">Generated Summary: language: en-US;

```

```

id: NPI78; active; <span title=\"Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem/OrgTypeCS
fac}\">Facility</span>; name: Hamilton Clinic; ph: (111)-222-3333, https://www.hartfordgeneralhospital.com<
/a></p><p><b>category</b>: <span title=\"Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/HealthcareServiceCategoryCS outpatient}\">Clinic or Outpatient Facility</span></p><p><b>specialty</b>: <span
title=\"Codes: {http://nucc.org/provider-taxonomy 207Q00000X}\">Family Medicine</span></p><p><b>location<
/b>: <a href=\"Location-HospLoc1.html\">Generated Summary: language: en-US; status: active; name: Hartford
Hospital Location 1; <span title=\"Codes: {http://terminology.hl7.org/CodeSystem/v3-RoleCode HOSP}\">
>Hospital</span>; ph: (111)-222-3333, https://www.hgh.com</a></p></div>\"
},
  "extension": [
    {
      "url": "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/delivery-
method",
      "extension": [
        {
          "url": "type",
          "valueCodeableConcept": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net
/CodeSystem/DeliveryMethodCS",
                "code": "physical"
              }
            ]
          }
        }
      ]
    }
  ],
  {
    "url": "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition
/newpatients",
    "extension": [
      {
        "url": "acceptingPatients",
        "valueCodeableConcept": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net
/CodeSystem/AcceptingPatientsCS",
              "code": "newpt"
            }
          ]
        }
      }
    ]
  },
  "active": true,
  "providedBy": {
    "reference": "Organization/HamiltonClinic"
  },
  "category": [
    {
      "coding": [
        {
          "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/HealthcareServiceCategoryCS",
          "code": "outpat"
        }
      ]
    }
  ],
  "specialty": [
    {
      "coding": [
        {
          "system": "http://nucc.org/provider-taxonomy",
          "code": "207Q00000X",
          "display": "Family Medicine"
        }
      ]
    }
  ]
}

```

```

    ],
    "location": [
      {
        "reference": "Location/HospLoc1"
      }
    ]
  }
}
]
}
}

```

[base]/HealthcareService?location=[reference]&acceptingPatients=[boolean]

```

[base]/HealthcareService?location=[reference]&acceptingPatients=[boolean]
GET HealthcareService?location=1&acceptingPatients=true

{
  "resourceType" : "Bundle",
  "id" : "d68a96a4-eebb-44b0-ade7-3dd1528c6c61",
  "meta" : {
    "lastUpdated" : "2021-08-04T17:17:35.582+00:00"
  },
  "type" : "searchset",
  "total" : 1,
  "link" : [
    {
      "relation" : "self",
      "url" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/HealthcareService?
acceptingPatients=true&location=1"
    }
  ],
  "entry" : [
    {
      "fullUrl" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/HealthcareService/HL0001",
      "resource" : {
        "resourceType" : "HealthcareService",
        "id" : "HL0001",
        "meta" : {
          "versionId" : "1626754459919",
          "lastUpdated" : "2021-05-31T02:41:03.4308578-04:00",
          "source" : "QNXT",
          "profile" : [
            "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
HealthcareService"
          ]
        },
        "extension" : [
          {
            "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
NewPatients-extension",
            "extension" : [
              {
                "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
AcceptingPatients-extension",
                "valueBoolean" : true
              }
            ]
          }
        ]
      }
    }
  ],
  "identifier" : [
    {
      "use" : "official",
      "type" : {
        "text" : "NPI"
      },
      "system" : "https://npiregistry.cms.hhs.gov",

```

```

        "value" : "HL001"
      },
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags/audit-identifier"
      }
    ],
    "active" : true,
    "providedBy" : {
      "reference" : "Organization/ACME234505",
      "type" : "Organization"
    },
    "category" : [
      {
        "text" : "TSS000008765 : PHYSICIAN GROUP"
      }
    ],
    "type" : [
      {
        "text" : "208D00000X : General Practice"
      }
    ],
    "specialty" : [
      {
        "coding" : [
          {
            "system" : "http://nucc.org/provider-taxonomy",
            "code" : "208D00000X",
            "display" : "General Practice"
          }
        ],
        "text" : "General Practice"
      }
    ],
    "location" : [
      {
        "reference" : "Location/1"
      }
    ],
    "name" : "MULTI-SPECIALTY GROUP"
  }
}
]
}

```

### [base]/HealthcareService?name=[name]

```

[base]/HealthcareService?name=[name]

GET    /HealthcareService?name=Pharmacy%20by%20PharmChain

{
  "resourceType": "Bundle",
  "id": "1ef28391-4f91-4ceb-9f6a-2f969a6eafda",
  "meta": {
    "lastUpdated": "2021-01-26T22:02:54.048+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/HealthcareService?name=Pharmacy%20by%20PharmChain"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/HealthcareService/9978aa61-9ee7-4744-a29c-38658ae24bdb",
      "resource": {

```

```

"resourceType": "HealthcareService",
"id": "9978aa61-9ee7-4744-a29c-38658ae24bdb",
"meta": {
  "versionId": "1626754457332",
  "lastUpdated": "2020-07-07T13:26:22.0314215+00:00",
  "profile": [
    "http://hl7.org/fhir/StructureDefinition/HealthcareService"
  ],
  "tag": [
    {
      "system": "tranzform-apim-request-ns",
      "code": "user-request-id",
      "display": "cb7b4da7-ece9-486b-b64d-70dcd220355b\t\t\t1"
    }
  ]
},
"language": "en-US",
"text": {
  "status": "extensions",
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
},
"extension": [
  {
    "url": "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/delivery-
method",
    "extension": [
      {
        "url": "type",
        "valueCodeableConcept": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net
/CodeSystem/DeliveryMethodCS",
              "code": "virtual"
            }
          ]
        }
      }
    ]
  }
],
"identifier": [
  {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "9978aa61-9ee7-4744-a29c-38658ae24bdb"
  }
],
"active": true,
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/HealthcareServiceCategoryCS",
        "code": "outpat"
      }
    ]
  }
],
"name": "Pharmacy by PharmChain"
}
]
}

```

[base]/HealthcareService?identifier=[system]][value]





```

    },
    "active": true,
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/HealthcareServiceCategoryCS",
            "code": "outpat"
          }
        ]
      }
    ],
    "name": "Pharmacy by PharmChain"
  }
]
}

```

[base]/HealthcareService?specialty=[system][value]&acceptingPatients=[boolean]

```

[base]/HealthcareService?specialty=[system][value]&acceptingPatients=[boolean]
GET /HealthcareService?acceptingPatients=true&specialty=http://nucc.org/provider-taxonomy|208D00000X
{
  "resourceType": "Bundle",
  "id": "048a28e9-ab91-4c33-bb2f-b84edebf5bb8",
  "meta": {
    "lastUpdated": "2021-08-04T17:27:14.305+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/HealthcareService?
acceptingPatients=true&specialty=http%3A%2F%2Fnucc.org%2Fprovider-taxonomy%7C208D00000X"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/HealthcareService/HL0001",
      "resource": {
        "resourceType": "HealthcareService",
        "id": "HL0001",
        "meta": {
          "versionId": "1626754459918",
          "lastUpdated": "2021-05-31T02:41:03.4308578-04:00",
          "source": "QNXT",
          "profile": [
            "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
HealthcareService"
          ]
        },
        "extension": [
          {
            "url": "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
NewPatients-extension",
            "extension": [
              {
                "url": "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
AcceptingPatients-extension",
                "valueBoolean": true
              }
            ]
          }
        ]
      }
    }
  ]
}

```

```

    ],
    "identifier" : [
      {
        "use" : "official",
        "type" : {
          "text" : "NPI"
        },
        "system" : "https://npiregistry.cms.hhs.gov",
        "value" : "HL001"
      },
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags/audit-identifier"
      }
    ],
    "active" : true,
    "providedBy" : {
      "reference" : "Organization/ACME234505",
      "type" : "Organization"
    },
    "category" : [
      {
        "text" : "TSS000008765 : PHYSICIAN GROUP"
      }
    ],
    "type" : [
      {
        "text" : "208D00000X : General Practice"
      }
    ],
    "specialty" : [
      {
        "coding" : [
          {
            "system" : "http://nucc.org/provider-taxonomy",
            "code" : "208D00000X",
            "display" : "General Practice"
          }
        ],
        "text" : "General Practice"
      }
    ],
    "location" : [
      {
        "reference" : "Location/1"
      }
    ],
    "name" : "MULTI-SPECIALTY GROUP"
  }
]
}

```

### [base]/HealthcareService[/id]

```

[base]/HealthcareService[/id]

GET /HealthcareService/HL0001

{
  "resourceType" : "HealthcareService",
  "id" : "HL0001",
  "meta" : {
    "versionId" : "1626754459919",
    "lastUpdated" : "2021-05-31T02:41:03.4308578-04:00",
    "source" : "QNXT",
    "profile" : [
      "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-HealthcareService"
    ]
  }
}

```

```
    ]
  },
  "extension" : [
    {
      "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
extension",
      "extension" : [
        {
          "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
AcceptingPatients-extension",
          "valueBoolean" : true
        }
      ]
    }
  ],
  "identifier" : [
    {
      "use" : "official",
      "type" : {
        "text" : "NPI"
      },
      "system" : "https://npiregistry.cms.hhs.gov",
      "value" : "HL001"
    },
    {
      "system" : "http://terminology.hl7.org/CodeSystem/common-tags/audit-identifier"
    }
  ],
  "active" : true,
  "providedBy" : {
    "reference" : "Organization/ACME234505",
    "type" : "Organization"
  },
  "category" : [
    {
      "text" : "TSS000008765 : PHYSICIAN GROUP"
    }
  ],
  "type" : [
    {
      "text" : "208D00000X : General Practice"
    }
  ],
  "specialty" : [
    {
      "coding" : [
        {
          "system" : "http://nucc.org/provider-taxonomy",
          "code" : "208D00000X",
          "display" : "General Practice"
        }
      ],
      "text" : "General Practice"
    }
  ],
  "location" : [
    {
      "reference" : "Location/1"
    }
  ],
  "name" : "MULTI-SPECIALTY GROUP"
}
```

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# Immunization

---

## Use Case

A parent has been asked by a practitioner to provide a list of immunizations that their child has received. The parent authorizes a mobile application to retrieve their child's immunization information. The application UI calls an external endpoint which returns the immunization information in an industry-standard format. The application then translates the data and displays it to the parent.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Immunization?patient=[reference]
- GET [base]/Immunization[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Immunization Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Immunization?patient=[reference]

```
[base]/Immunization?patient=[reference]

GET    /Immunization?patient=34343900

{
  "resourceType": "Bundle",
  "id": "1b6ae232-e46f-4899-a01e-99c14fa75b9f",
  "meta": {
    "lastUpdated": "2021-01-28T01:53:41.430+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Immunization?patient=34343900"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Immunization/9585156575",
      "resource": {
        "resourceType": "Immunization",
        "id": "9585156575",
        "meta": {
          "profile": [
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-immunization"
          ]
        },
        "text": {
```

```

        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: historical</p><p><b>identifier</b>: urn:oid:1.3.6.1.4.1.21367.2005.3.7.1234<
/p><p><b>status</b>: completed</p><p><b>vaccineCode</b>: Influenza <span>(Details : {urn:oid:
1.2.36.1.2001.1005.17 code 'GNFLU' = 'Influenza}</span></p><p><b>patient</b>: <a>Patient/example</a><
/p><p><b>occurrence</b>: January 2012</p><p><b>primarySource</b>: false</p><p><b>reportOrigin</b>: Written
Record <span>(Details : {http://terminology.hl7.org/CodeSystem/immunization-origin code 'record' = 'Written
Record}</span></p><p><b>location</b>: <a>Location/1</a></p><p><b>note</b>: Notes on adminstration of a
historical vaccine</p></div>"
    },
    "identifier": [
      {
        "system": "urn:ietf:rfc:3986",
        "value": "urn:oid:1.3.6.1.4.1.21367.2005.3.7.1234"
      }
    ],
    "status": "completed",
    "vaccineCode": {
      "coding": [
        {
          "system": "urn:oid:1.2.36.1.2001.1005.17",
          "code": "GNFLU"
        }
      ],
      "text": "Influenza"
    },
    "patient": {
      "reference": "Patient/34343900"
    },
    "occurrenceString": "January 2012",
    "primarySource": false,
    "reportOrigin": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/immunization-origin",
          "code": "record"
        }
      ],
      "text": "Written Record"
    },
    "location": {
      "reference": "Location/1"
    },
    "note": [
      {
        "text": "Notes on adminstration of a historical vaccine"
      }
    ]
  ]
}

```

[base]/Immunization[id]

```
[base]/Immunization[/id]

GET /Immunization/Immingest0146

{
  "resourceType" : "Immunization",
  "id" : "Immingest0146",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-07-19T20:16:53.223+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-immunization"
    ]
  },
  "identifier" : [
    {
      "system" : "urn:ietf:rfc:3986",
      "value" : "urn:oid:1.3.6.1.4.1.21367.2005.3.7.1234"
    }
  ],
  "status" : "completed",
  "vaccineCode" : {
    "coding" : [
      {
        "system" : "urn:oid:1.2.36.1.2001.1005.17",
        "code" : "GNFLU"
      }
    ],
    "text" : "Influenza"
  },
  "patient" : {
    "reference" : "Patient/Ptpingest0146"
  },
  "occurrenceString" : "January2012",
  "primarySource" : false,
  "reportOrigin" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/immunization-origin",
        "code" : "record"
      }
    ],
    "text" : "Written Record"
  },
  "location" : {
    "reference" : "Location/Locp01"
  },
  "note" : [
    {
      "text" : "Notes on administration of a historical vaccine"
    }
  ]
}
```

---

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# Implantable Device

---

## Use Case

A member has received a knee replacement and wants to see the type of device that was used. The member accesses a mobile application which calls an external endpoint. The endpoint returns the knee replacement device details in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Device?patient=[reference]
- GET [base]/Device[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Implantable Device Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Device?patient=[reference]

```
[base] / Device ? patient = [reference]

GET /Device?patient=7058037

{
  "resourceType": "Bundle",
  "id": "695d3410-7e39-40cc-9f16-136842d7717f",
  "meta": {
    "lastUpdated": "2021-01-25T00:46:17.694+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Device?patient=7058037"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=2b4e5d6b-af61-5a2d-86cf-014416c8a910&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Device/ac28196b-1697-4427-a221-4f855fe447d7",
    "resource": {
      "resourceType": "Device",
      "id": "ac28196b-1697-4427-a221-4f855fe447d7",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-09-14T07:18:06.035+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-implantable-device"],

```

```

        "tag": [{
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "b8fb6546-a7b3-4a8c-a9a0-aaa2f88a64e0\t\t\t1"
        }
    ],
    },
    "identifier": [{
        "system": "http://snomed.info/sct",
        "value": "987DV"
    }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "ac28196b-1697-4427-a221-4f855fe447d7"
    }
    ],
    "udiCarrier": [{
        "deviceIdentifier": "987DV",
        "carrierHRF": "(01)98DV(16)IM12(19)M320(20)AC221"
    }
    ],
    "distinctIdentifier": "IM12",
    "manufactureDate": "2015-10-15",
    "expirationDate": "2022-01-01",
    "lotNumber": "M320",
    "serialNumber": "AC221",
    "type": {
        "coding": [{
            "system": "http://snomed.info/sct",
            "code": "109228008",
            "display": "Knee joint prosthesis"
        }
    ]
    },
    "patient": {
        "reference": "Patient/7058037"
    }
    }, {
        "fullUrl": "https://<datahub_server>/Device/e8b85087-5c56-42b4-99e8-8a7e2a96427d",
        "resource": {
            "resourceType": "Device",
            "id": "e8b85087-5c56-42b4-99e8-8a7e2a96427d",
            "meta": {
                "versionId": "1626754457332",
                "lastUpdated": "2020-09-21T17:26:55.034+00:00",
                "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-implantable-
device"],
                "tag": [{
                    "system": "tranzform-apim-request-ns",
                    "code": "user-request-id",
                    "display": "52de293b-4bc0-4405-9192-9a31b763ca20\t\t\t1"
                }
            ]
        },
        "identifier": [{
            "system": "http://snomed.info/sct",
            "value": "VAR01"
        }, {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "e8b85087-5c56-42b4-99e8-8a7e2a96427d"
        }
    ],
    "udiCarrier": [{
        "deviceIdentifier": "VAR01",
        "carrierHRF": "(01)98DV(16)IM12(19)M320(20)AC221"
    }
    ],
    "distinctIdentifier": "IM12",
    "manufactureDate": "2015-10-15",

```

```
    "expirationDate": "2022-01-01",
    "lotNumber": "M320",
    "serialNumber": "AC221",
    "type": {
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "109228008",
        "display": "Knee joint prosthesis"
      }
    ],
    "patient": {
      "reference": "Patient/7058037"
    }
  }
}
```

[base]/Device[/id]

```
[base]/Device[/id]

GET /Device/988DV

{
  "resourceType" : "Device",
  "id" : "988DV",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-05-20T14:00:42.000+00:00",
    "source" : "LCS",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-implantable-device"
    ]
  },
  "identifier" : [
    {
      "system" : "LCS:tenant4",
      "value" : "988DV"
    }
  ],
  "udiCarrier" : [
    {
      "deviceIdentifier" : "988DV",
      "carrierHRF" : "(01)98DV(16)IM12(19)M320(20)AC223"
    }
  ],
  "distinctIdentifier" : "IMPD19",
  "manufactureDate" : "2016-10-15T06:10:02",
  "expirationDate" : "2022-01-01T10:30:22",
  "lotNumber" : "IM320",
  "serialNumber" : "AC1283",
  "type" : {
    "coding" : [
      {
        "system" : "http://snomed.info/sct",
        "code" : "109228008",
        "display" : "Knee joint prosthesis"
      }
    ]
  },
  "patient" : {
    "reference" : "Patient/b3512096-e96b-55ec-9d5f-af5c711b9234",
    "type" : "Patient"
  }
}
```

---

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# InsurancePlan

## Use Case

For a consumer (member) of the health plan, the **InsurancePlan** API offers a way to view the coverage benefits that are offered under a particular network type. **InsurancePlan** offers the consumers an ability to determine the various plans offered within a product and the cost sharing structure for a specific plan.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Query Parameter	Type	Description
<a href="#">administered-by</a>	reference	Select products that are administered by the specified organization
<a href="#">coverage-area</a>	reference	Select products that are offered in the specified location
<a href="#">coverage-benefit-type</a>	token <sup>1</sup>	Select health insurance products offering covered benefits of the specified type
<a href="#">coverage-limit-value</a>	quantity	Select health insurance products with covered benefits limited in the specified manner
<a href="#">coverage-network</a>	reference	Select products offering covered benefits through the specified health insurance provider network
<a href="#">coverage-type</a>	token	Select products offering the specified type of coverage
<a href="#">endpoint</a>	reference	Select health insurance products/plans with the specified endpoint
<a href="#">general-cost-groupsize</a>	token	Select plans with costs for the specified group size
<a href="#">general-cost-type</a>	token	Select plans with the specified type of cost
<a href="#">general-cost-value</a>	quantity	Select plans which include the specified cost
<a href="#">identifier</a>	token	Select products with the specified identifier
<a href="#">name</a>	string	Select products with the specified name
<a href="#">network</a>	reference	Select products associated with the specified health insurance provider network

<a href="#">owned-by</a>	reference	Select products that are owned by the specified organization
<a href="#">plan-coverage-area</a>	reference	Select plans that are available in the specified location
<a href="#">plan-identifier</a>	token	Select plans with the specified identifier
<a href="#">plan-network</a>	reference	Select plans associated with the specified health insurance provider network
<a href="#">plan-type</a>	token	Select plans of the specified type
<a href="#">specific-cost-benefit-type</a>	token	Select plans which include costs for the specified type of benefit
<a href="#">specific-cost-category</a>	token	Select plans which include costs for the specified category of coverage
<a href="#">specific-cost-cost-type</a>	token	Select plans which include the specified type of cost
<a href="#">specific-cost-value</a>	quantity	Select plans which include the specified cost
<a href="#">status</a>	token	Select health insurance products/plans with the specified status
<a href="#">type</a>	token	Select insurance plans of the specified type
<a href="#">telecom-available-days</a>	token	Days available
<a href="#">telecom-available-end-time</a>	token	End time
<a href="#">telecom-available-start-time</a>	token	Start time

1. A token refers to either [system][value] or [ value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Sample GET Requests

- GET [base]/InsurancePlan?name=[name]
- GET [base]/InsurancePlan?identifier=[system][value]
- GET [base]/InsurancePlan?coverage-area=[reference]
- GET [base]/InsurancePlan[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [Provider Directory - PDEX- Plan Net - Insurance Plan](#)



# Error Codes

## Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

# Sample Requests and Responses

[base]/InsurancePlan?name=[name]

```
[base]/InsurancePlan?name=[name]

GET    /InsurancePlan?name=Acme%20of%20CT%20QHP%20Bronze

{
  "resourceType": "Bundle",
  "id": "98fd27b2-8934-4f4d-8742-671711efb4fd",
  "meta": {
    "lastUpdated": "2021-02-01T21:23:11.771+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/InsurancePlan?name=Acme%20of%20CT%20QHP%20Bronze"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/InsurancePlan/b18a5b1e-ad29-5565-9d2a-062113116223",
      "resource": {
        "resourceType": "InsurancePlan",
        "id": "b18a5b1e-ad29-5565-9d2a-062113116223",
        "meta": {
          "versionId": "1626754457332",
```

```

        "lastUpdated": "2020-07-07T13:26:22.031+00:00",
        "profile": [
          "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
InsurancePlan"
        ],
        "tag": [
          {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "a1672ca0-428a-4b18-a14a-d0aec9b333eb\t\t\t1"
          }
        ]
      },
      "language": "en-US",
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
      },
      "identifier": [
        {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "b18a5b1e-ad29-5565-9d2a-062113116223"
        }
      ],
      "status": "active",
      "type": [
        {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/InsuranceProductTypeCS",
              "code": "qhp",
              "display": "Qualified Health Plan"
            }
          ]
        }
      ],
      "name": "Acme of CT QHP Bronze",
      "ownedBy": {
        "reference": "Organization/PharmChain"
      },
      "administeredBy": {
        "reference": "Organization/PharmChain"
      },
      "plan": [
        {
          "type": {
            "coding": [
              {
                "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/InsurancePlanTypeCS",
                "code": "bronze",
                "display": "Bronze-QHP"
              }
            ]
          }
        }
      ]
    }
  ]
}

```

[base]/InsurancePlan?identifier=[system]][value]

[base]/InsurancePlan?identifier=[system]|[value]

```

GET /InsurancePlan?identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier|b18a5b1e-ad29-5565-9d2a-062113116223

{
  "resourceType": "Bundle",
  "id": "a23de087-0b16-435e-87e0-2755b4bf8914",
  "meta": {
    "lastUpdated": "2021-02-01T21:29:33.543+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/InsurancePlan?identifier=com.cognizant.tranzform.fhir.identifiers.logical-identifier%7Cb18a5b1e-ad29-5565-9d2a-062113116223"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/InsurancePlan/b18a5b1e-ad29-5565-9d2a-062113116223",
      "resource": {
        "resourceType": "InsurancePlan",
        "id": "b18a5b1e-ad29-5565-9d2a-062113116223",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-07-07T13:26:22.031+00:00",
          "profile": [
            "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-InsurancePlan"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "a1672ca0-428a-4b18-a14a-d0aec9b333eb\t\t\t1"
            }
          ],
          "language": "en-US",
          "text": {
            "status": "generated",
            "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with Details</b>\n\t\t\t\t</p>\n\t\t\t\t</div>"
          },
          "identifier": [
            {
              "use": "official",
              "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
              "value": "b18a5b1e-ad29-5565-9d2a-062113116223"
            }
          ],
          "status": "active",
          "type": [
            {
              "coding": [
                {
                  "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem/InsuranceProductTypeCS",
                  "code": "qhp",
                  "display": "Qualified Health Plan"
                }
              ]
            }
          ],
          "name": "Acme of CT QHP Bronze",
          "ownedBy": {
            "reference": "Organization/PharmChain"
          }
        }
      }
    }
  ]
}

```

```

    "administeredBy": {
      "reference": "Organization/PharmChain"
    },
    "plan": [
      {
        "type": {
          "coding": [
            {
              "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/InsurancePlanTypeCS",
              "code": "bronze",
              "display": "Bronze-QHP"
            }
          ]
        }
      }
    ]
  }
}

```

### [base]/InsurancePlan?coverage-area=[Reference]

```

[base]/InsurancePlan?coverage-area=[Reference]

GET /InsurancePlan?coverage-area=Location/StateOfCTLocation

{
  "resourceType": "Bundle",
  "id": "f22b9617-17ea-479f-be85-c4c7da22e3d3",
  "meta": {
    "lastUpdated": "2021-02-01T21:28:03.995+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/InsurancePlan?coverage-area=Location%2FStateOfCTLocation"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/InsurancePlan/AcmeQHPGold",
      "resource": {
        "resourceType": "InsurancePlan",
        "id": "AcmeQHPGold",
        "meta": {
          "lastUpdated": "2020-07-07T13:26:22.0314215+00:00",
          "profile": [
            "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
InsurancePlan"
          ]
        },
        "language": "en-US",
        "text": {
          "status": "generated",
          "div": "<div xmlns='http://www.w3.org/1999/xhtml'><p><b>Generated Narrative</b></p><h3>Ids</h3><table class='grid'><tr><td></td></tr><tr><td>*</td></tr></table><h3>Meta</h3><table class='grid'><tr><td></td></tr><tr><td>*</td></tr></table><p><b>language</b>: en-US</p><p><b>status</b>: active</p><p><b>type</b>: <span title='Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem/InsuranceProductTypeCS qhp}'>Qualified Health Plan</span></p><p><b>name</b>: Acme of CT QHP Gold</p><p><b>ownedBy</b>: <a href='Organization-Acme.html'>Generated Summary: language: en-US; active; <span title='Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem/OrgTypeCS payer}'>Payer</span>; name: Acme of CT; ph: (111)-222-3333, https://www.acmeofct.com</a></p><p><b>administeredBy</b>: <a href='Organization-Acme.html'>Generated Summary: language: en-US; active; <span title='Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem/OrgTypeCS payer}'>Payer</span>; name: Acme of CT; ph: (111)-222-

```



## [base]/InsurancePlan[/id]

```
[base]/InsurancePlan[/id]

GET /InsurancePlan/InsurancePlanResource3

{
  "resourceType": "InsurancePlan",
  "id": "InsurancePlanResource3",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2020-07-07T13:26:22.031+00:00",
    "profile": [
      "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-InsurancePlan"
    ],
    "tag": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/common-tags",
        "code": "user-request-id",
        "display": "e38a5629-f37a-4558-9f3c-d8a76821b1c9[1]"
      }
    ]
  },
  "language": "en-US",
  "text": {
    "status": "generated",
    "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with  
Details</b>\n\t\t\t</p>\n\t\t\t</div>"
  },
  "identifier": [
    {
      "use": "official",
      "type": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
            "code": "NIIP",
            "display": "National Insurance Payor Identifier (Payor)",
            "userSelected": true
          }
        ]
      },
      "text": "HIOS product ID"
    },
    {
      "system": "https://www.cms.gov/CCIIO/",
      "value": "1234567891",
      "assigner": {
        "reference": "Organization/Orgingest0123",
        "display": "Org name23"
      }
    }
  ],
  "status": "draft",
  "type": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/insurance-plan-type",
          "code": "medical",
          "display": "Medical"
        }
      ]
    }
  ],
  "name": "Acme of CT QHP Bronze",
  "ownedBy": {
    "reference": "Organization/Orgingest0123",

```

```

    "type" : "Organization",
    "display" : "Org name23"
  },
  "administeredBy" : {
    "reference" : "Organization/Orgingest0124",
    "display" : "Org name24"
  },
  "coverageArea" : [
    {
      "reference" : "Location/1",
      "display" : "South Wing, second floor"
    }
  ],
  "contact" : [
    {
      "purpose" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/contactentity-type",
            "code" : "PATINF",
            "display" : "Patient"
          }
        ]
      },
      "text" : "General information"
    },
    {
      "telecom" : [
        {
          "extension" : [
            {
              "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/contactpoint-
availabletime",
              "extension" : [
                {
                  "url" : "daysOfWeek",
                  "valueCode" : "mon"
                },
                {
                  "url" : "allDay",
                  "valueBoolean" : false
                },
                {
                  "url" : "availableStartTime",
                  "valueTime" : "11:00:00"
                },
                {
                  "url" : "availableEndTime",
                  "valueTime" : "12:00:00"
                }
              ]
            }
          ]
        },
        {
          "system" : "phone",
          "value" : "202-123-4567",
          "use" : "mobile",
          "rank" : 1
        },
        {
          "system" : "email",
          "value" : "george.washington@whitehouse.gov",
          "use" : "home",
          "rank" : 1
        }
      ]
    }
  ],
  "endpoint" : [
    {
      "reference" : "Endpoint/EP2020Feb02",
      "display" : "Endpoint for Acme of CT Portal"
    }
  ],
  ],

```

```
"network" : [  
  {  
    "reference" : "Organization/Orgingest0125",  
    "display" : "Org name25"  
  }  
]
```

---

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# Location

---

## Use Case

The Location endpoint is used during other HL7 FHIR APIs to retrieve location information for a provider. Additionally, it can be called as a stand-alone API. When a user loads the location screen in the mobile application UI, the UI calls in to the external endpoint for the location. That call returns the location data in the industry-standard format where it is then translated by the mobile application for display. The user now views the location information in a user friendly way.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Query Parameter	Type	Description
<a href="#">available-days</a>	token <sup>1</sup>	Days available
<a href="#">available-end-time</a>	token	Available end time
<a href="#">available-start-time</a>	token	Available start time
<a href="#">accessibility</a>	token	Select locations that offer the specified accessibility options
<a href="#">address</a>	string	Select Locations with the specified address
<a href="#">contains</a>	special	Select locations that contain the specified coordinates
<a href="#">endpoint</a>	reference	Select Locations with the specified endpoint
<a href="#">identifier-assigner</a>	reference	Select Locations with an identifier issued by the specified organization
<a href="#">identifier</a>	token	Select Locations with the specified identifier
<a href="#">new-patient-network</a>	reference	Select locations that are part of the specified network and are/are not accepting new patients
<a href="#">new-patient</a>	token	Select locations that are/are not accepting new patients
<a href="#">organization</a>	reference	Select Locations managed by the specified organization
<a href="#">partof</a>	reference	Select Locations that are part of the specified location
<a href="#">status</a>	token	Select Locations with the specified status
<a href="#">type</a>	token	Select Locations of the specified type
<a href="#">via-intermediary</a>	reference	Select Locations with contact information available through the specified intermediary
<a href="#">telecom-available-days</a>	token	Days available
<a href="#">telecom-available-end-time</a>	token	end time
<a href="#">telecom-available-start-time</a>	token	Start time

1. A token refers to either [system][value] or [value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Sample GET Requests

- GET [base]/Location?name=XXXXX

- GET [base]/Location?address=XXXXX
- GET [base]/Location?address-postalcode=XXXXX
- GET [base]/Location?identifier=[system][value]
- GET [base]/Location[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core](#)
- [Da Vinci PDEX Plan Net](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Location?name=XXXXX

US Core

```
[base] / Location ? name = XXXXX
```

```
GET /Location?name=level%20seven&_profile=http://hl7.org/fhir/us/core/StructureDefinition/us-core-location

{
  "resourceType": "Bundle",
  "id": "6c78b792-549f-4b38-ab45-67f639c581f3",
  "meta": {
    "lastUpdated": "2021-01-23T00:51:25.715+00:00"
  },
  "type": "searchset",
  "total": 15,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Location?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%2FStructureDefinition%2Fus-core-location&name=level%20seven"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=b9f9d736-5a20-5c8f-a693-b7c783f0328e&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Location/Loc01",
    "resource": {
      "resourceType": "Location",
      "id": "Loc01",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-11-25T06:08:40.285+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-location"],
        "tag": [{
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "fd2cfb9f-5b51-4e92-b8ca-cdd096fedf6c\t\t\t1"
        }
      ]
    },
    "identifier": [{
      "system": "http://www.acme.org/location",
      "value": "29"
    }, {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "Loc01"
    }
  ],
  "status": "active",
  "name": "Health Level Seven International - Amherst",
  "description": "HL7 Headquarters - East",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }
],
  "address": {
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  },
  "position": {
    "longitude": -72.519854,
    "latitude": 42.373222
  },
  "managingOrganization": {
    "display": "Health Level Seven International"
  }
}, {
  "fullUrl": "https://<datahub_server>/Location/SERGENTemp",
```

```

    "resource": {
      "resourceType": "Location",
      "id": "SERGENTemp",
      "meta": {
        "versionId": "1626754455548",
        "lastUpdated": "2021-01-20T13:25:32.958+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-location"]
      },
      "identifier": [{
        "type": {
          "coding": [{
            "system": "http://terminology.hl7.org/CodeSystem/v2-0301",
            "code": "HL7"
          }]
        },
        "system": "NYP:tenant4",
        "value": "SERGENTemp"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "SERGENTemp"
      }
    ],
    "status": "active",
    "name": "Health Level Seven International",
    "description": "CE4 HL7 Headquarters WEST",
    "type": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/v3-RoleCode",
        "code": "NCCF"
      }]
    }
  ],
  "physicalType": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/v2-0307",
      "code": "ro"
    }]
  },
  "text": "ro 4"
}
]
}
}

```

## DaVinci PDEX Plan Net

```

[base] / Location ? name = XXXX

GET /Location?name=level%20seven&_profile=http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Location

{
  "resourceType": "Bundle",
  "id": "bcfc3598-5alc-4b80-960b-0db82e942f42",
  "meta": {
    "lastUpdated": "2021-01-24T03:02:34.600+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Location?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-Location&address-postalcode=48104"
  }]
}

```

```

    ],
    "entry": [{
      "fullUrl": "https://<datahub_server>/Location/_hl7",
      "resource": {
        "resourceType": "Location",
        "id": "_hl7",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2012-12-12T00:00:00.000+00:00",
          "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Location"]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n      Health Level Seven
International<br/>\n\t\t\t\t\t3300 Washtenaw Avenue, Suite 227<br/>\n\t\t\t\t\tAnn Arbor, MI 48104<br
/>\n\t\t\t\t\tUSA<br/>\n\t\t\t\t\t(+1) 734-677-7777 (phone)<br/>\n\t\t\t\t\t(+1) 734-677-6622 (fax)<br
/>\n\t\t\t\t\tE-mail: <a href=\\"mailto:hq@HL7.org\">hq@HL7.org</a>\n    </div>"
        },
        "identifier": [{
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "_hl7"
        }
      ],
      "status": "active",
      "name": "Health Level",
      "description": "HL7 Headquarters",
      "mode": "instance",
      "type": [{
        "coding": [{
          "system": "http://terminology.hl7.org/CodeSystem/v3-RoleCode",
          "code": "SLEEP",
          "display": "Sleep disorders unit"
        }
      ]
    }
  ],
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }, {
    "system": "fax",
    "value": "(+1) 734-677-6622"
  }, {
    "system": "email",
    "value": "hq@HL7.org"
  }
],
"address": {
  "line": ["3300 Washtenaw Avenue, Suite 227"],
  "city": "Ann Arbor",
  "state": "MI",
  "postalCode": "48104",
  "country": "USA"
},
"physicalType": {
  "coding": [{
    "system": "http://terminology.hl7.org/CodeSystem/location-physical-type",
    "code": "bu",
    "display": "Building"
  }
]
},
"position": {
  "longitude": 42.2565,
  "latitude": -83.69471
}
}
]

```

```
}

```

## [base]/Location?address=XXXX

### US Core

```
[base] / Location ? address = XXXX

GET /Location?address=3300%20Washtenaw%20Avenue%20Suite%20227&_profile=http://hl7.org/fhir/us/core/StructureDefinition/us-core-location

{
  "resourceType": "Bundle",
  "id": "28ceb76d-cddf-43aa-96ff-ae89b6b6d34",
  "meta": {
    "lastUpdated": "2021-01-24T02:57:27.724+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Location?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%2FStructureDefinition%2Fus-core-location&address=3300%20Washtenaw%20Avenue%20Suite%20227"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Location/_hl7",
    "resource": {
      "resourceType": "Location",
      "id": "_hl7",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2012-12-12T00:00:00.000+00:00",
        "profile": [ "http://hl7.org/fhir/us/core/StructureDefinition/us-core-location" ]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n      Health Level Seven International<br/>\n\t\t\t\t3300 Washtenaw Avenue, Suite 227<br/>\n\t\t\t\tAnn Arbor, MI 48104<br/>\n\t\t\t\tUSA<br/>\n\t\t\t\t(+1) 734-677-7777 (phone)<br/>\n\t\t\t\t(+1) 734-677-6622 (fax)<br/>\n\t\t\t\tE-mail: <a href=\"mailto:hq@HL7.org\">hq@HL7.org</a>\n    </div>"
      },
      "identifier": [{
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "_hl7"
      }
    ],
    "status": "active",
    "name": "Health Level",
    "description": "HL7 Headquarters",
    "mode": "instance",
    "type": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/v3-RoleCode",
        "code": "SLEEP",
        "display": "Sleep disorders unit"
      }
    ]
  }
],
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }
], {

```

```

        "system": "fax",
        "value": "(+1) 734-677-6622"
      }, {
        "system": "email",
        "value": "hq@HL7.org"
      }
    ],
    "address": {
      "line": ["3300 Washtenaw Avenue, Suite 227"],
      "city": "Ann Arbor",
      "state": "MI",
      "postalCode": "48104",
      "country": "USA"
    },
    "physicalType": {
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/location-physical-type",
        "code": "bu",
        "display": "Building"
      }
    ]
  },
  "position": {
    "longitude": 42.2565,
    "latitude": -83.69471
  }
}, {
  "fullUrl": "https://<datahub_server>/Location/Loc01",
  "resource": {
    "resourceType": "Location",
    "id": "Loc01",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-11-25T06:08:40.285+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-location"],
      "tag": [{
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "fd2cfb9f-5b51-4e92-b8ca-cdd096fedf6c\t\t\t1"
      }
    ]
  },
  "identifier": [{
    "system": "http://www.acme.org/location",
    "value": "29"
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "Loc01"
  }
],
  "status": "active",
  "name": "Health Level Seven International - Amherst",
  "description": "HL7 Headquarters - East",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }
],
  "address": {
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  },
  "position": {
    "longitude": -72.519854,
    "latitude": 42.373222
  }
},

```



```

        "managingOrganization": {
          "display": "Health Level Seven International"
        }
      }
    ]
  }
}

```

## DaVinci PDEX Plan Net

```

[base] / Location ? address = XXXX

GET /Location?address=3300%20Washtenaw%20Avenue%20Suite%202227&_profile=http://hl7.org/fhir/us/davinci-
pdex-plan-net/StructureDefinition/plannet-Location

{
  "resourceType": "Bundle",
  "id": "b371cf6b-7657-4f78-869c-7d82730b0e54",
  "meta": {
    "lastUpdated": "2021-01-24T03:00:45.698+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Location?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-
pdex-plan-net%2FStructureDefinition%2Fplannet-Location&address=3300%20Washtenaw%20Avenue%20Suite%20227"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Location/_hl7",
    "resource": {
      "resourceType": "Location",
      "id": "_hl7",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2012-12-12T00:00:00.000+00:00",
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Location"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n      Health Level Seven
International<br/>\n\t\t\t\t\t3300 Washtenaw Avenue, Suite 227<br/>\n\t\t\t\t\tAnn Arbor, MI 48104<br
/>\n\t\t\t\t\tUSA<br/>\n\t\t\t\t\t(+1) 734-677-7777 (phone)<br/>\n\t\t\t\t\t(+1) 734-677-6622 (fax)<br
/>\n\t\t\t\t\tE-mail: <a href=\"mailto:hq@HL7.org\">hq@HL7.org</a>\n      </div>"
      },
      "identifier": [{
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "_hl7"
      }
    ],
    "status": "active",
    "name": "Health Level",
    "description": "HL7 Headquarters",
    "mode": "instance",
    "type": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/v3-RoleCode",
        "code": "SLEEP",
        "display": "Sleep disorders unit"
      }
    ]
  }
],
  "telecom": [{
    "system": "phone",

```

```

        "value": "(+1) 734-677-7777"
      }, {
        "system": "fax",
        "value": "(+1) 734-677-6622"
      }, {
        "system": "email",
        "value": "hq@HL7.org"
      }
    ],
    "address": {
      "line": ["3300 Washtenaw Avenue, Suite 227"],
      "city": "Ann Arbor",
      "state": "MI",
      "postalCode": "48104",
      "country": "USA"
    },
    "physicalType": {
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/location-physical-type",
        "code": "bu",
        "display": "Building"
      }
    ]
  },
  "position": {
    "longitude": 42.2565,
    "latitude": -83.69471
  }
}, {
  "fullUrl": "https://<datahub_server>/Location/Loc01",
  "resource": {
    "resourceType": "Location",
    "id": "Loc01",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-11-25T06:08:40.285+00:00",
      "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Location"],
      "tag": [{
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "fd2cfb9f-5b51-4e92-b8ca-cdd096fedf6c\t\t\t1"
      }
    ]
  },
  "identifier": [{
    "system": "http://www.acme.org/location",
    "value": "29"
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "Loc01"
  }
],
  "status": "active",
  "name": "Health Level Seven International - Amherst",
  "description": "HL7 Headquarters - East",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }
],
  "address": {
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  },
  "position": {

```

```

        "longitude": -72.519854,
        "latitude": 42.373222
    },
    "managingOrganization": {
        "display": "Health Level Seven International"
    }
}
]
}

```

## [base]/Location?address-postalcode=XXXXX

### US Core

```

[base] / Location ? address - postalcode = XXXX

GET /Location?address-postalcode=48104&_profile=http://hl7.org/fhir/us/core/StructureDefinition/us-core-location

{
  "resourceType": "Bundle",
  "id": "324469bd-46ae-4f09-a105-6e7bb73e618c",
  "meta": {
    "lastUpdated": "2021-01-23T02:12:55.735+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Location?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%2FStructureDefinition%2Fus-core-location&address-postalcode=48104"
  }],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Location/_hl7",
    "resource": {
      "resourceType": "Location",
      "id": "_hl7",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2012-12-12T00:00:00.000+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-location"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n      Health Level Seven International<br/>\n\t\t\t\t\t3300 Washtenaw Avenue, Suite 227<br/>\n\t\t\t\t\tAnn Arbor, MI 48104<br />\n\t\t\t\t\tUSA<br/>\n\t\t\t\t\t(+1) 734-677-7777 (phone)<br/>\n\t\t\t\t\t(+1) 734-677-6622 (fax)<br />\n\t\t\t\t\tE-mail: <a href=\\"mailto:hq@HL7.org\">hq@HL7.org</a>\n      </div>"
      },
      "identifier": [{
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "_hl7"
      }],
      "status": "active",
      "name": "Health Level",
      "description": "HL7 Headquarters",
      "mode": "instance",
      "type": [{
        "coding": [{
          "system": "http://terminology.hl7.org/CodeSystem/v3-RoleCode",
          "code": "SLEEP",

```

```

            "display": "Sleep disorders unit"
        }
    ]
},
"telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
}, {
    "system": "fax",
    "value": "(+1) 734-677-6622"
}, {
    "system": "email",
    "value": "hq@HL7.org"
}
],
"address": {
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Ann Arbor",
    "state": "MI",
    "postalCode": "48104",
    "country": "USA"
},
"physicalType": {
    "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/location-physical-type",
        "code": "bu",
        "display": "Building"
    }
    ]
},
"position": {
    "longitude": 42.2565,
    "latitude": -83.69471
}
}
}
]
}

```

## DaVinci PDEX Plan Net

```

[base] / Location ? address - postalcode = XXXX

GET /Location?address-postalcode=48104&_profile=http://hl7.org/fhir/us/davinci-pdex-plan-net
/StructureDefinition/plannet-Location

{
  "resourceType": "Bundle",
  "id": "bcfc3598-5alc-4b80-960b-0db82e942f42",
  "meta": {
    "lastUpdated": "2021-01-24T03:02:34.600+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Location?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-
pdex-plan-net%2FStructureDefinition%2Fplannet-Location&address-postalcode=48104"
  }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Location/_hl7",
    "resource": {
      "resourceType": "Location",
      "id": "_hl7",
      "meta": {
        "versionId": "1626754457332",

```

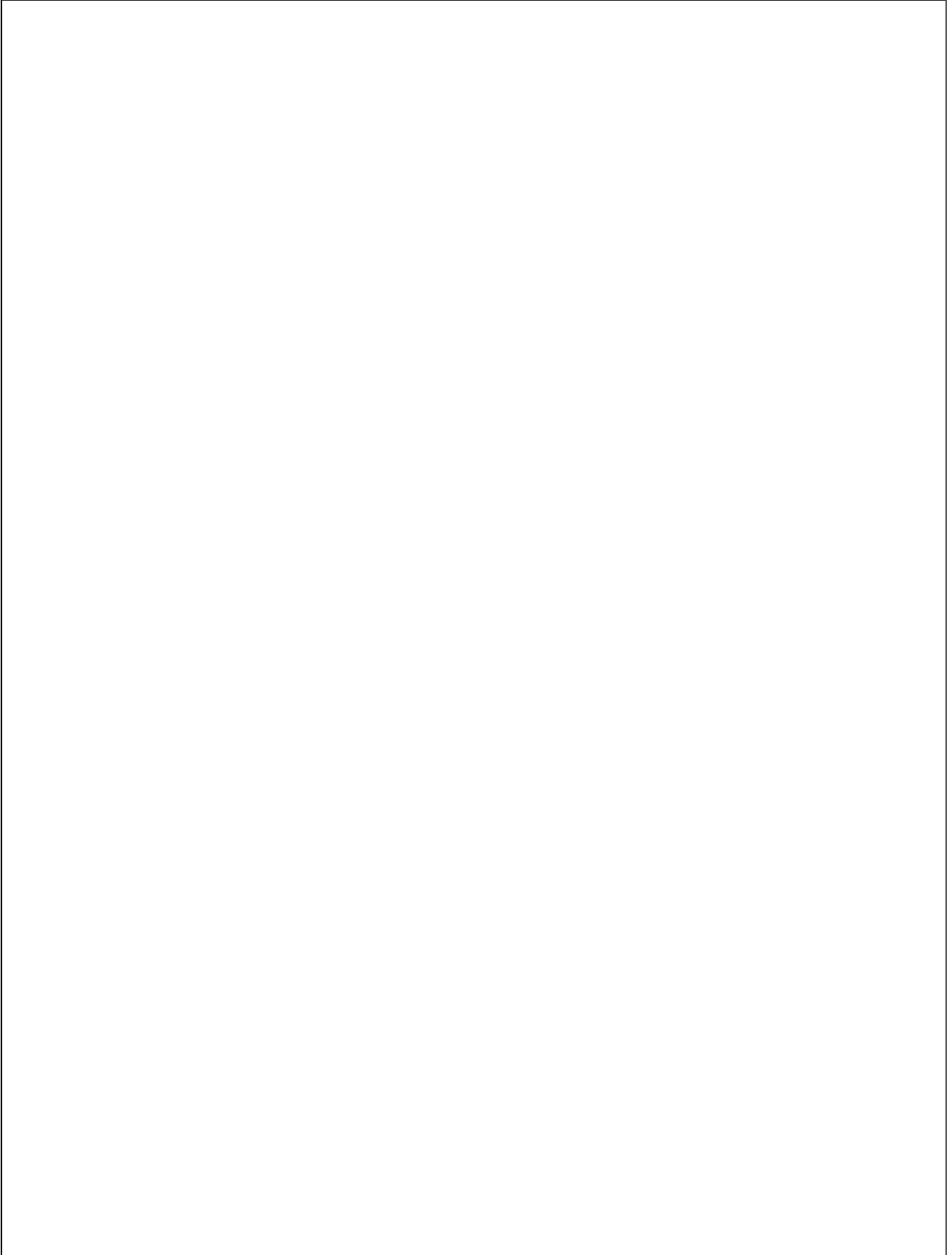
```

        "lastUpdated": "2012-12-12T00:00:00.000+00:00",
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Location"]
    },
    "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n      Health Level Seven
International<br/>\n\t\t\t\t\t3300 Washtenaw Avenue, Suite 227<br/>\n\t\t\t\t\tAnn Arbor, MI 48104<br
/>\n\t\t\t\t\tUSA<br/>\n\t\t\t\t\t(+1) 734-677-7777 (phone)<br/>\n\t\t\t\t\t(+1) 734-677-6622 (fax)<br
/>\n\t\t\t\t\tE-mail: <a href=\\"mailto:hq@HL7.org\">hq@HL7.org</a>\n    </div>"
    },
    "identifier": [{
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "_hl7"
    }
],
    "status": "active",
    "name": "Health Level",
    "description": "HL7 Headquarters",
    "mode": "instance",
    "type": [{
        "coding": [{
            "system": "http://terminology.hl7.org/CodeSystem/v3-RoleCode",
            "code": "SLEEP",
            "display": "Sleep disorders unit"
        }
    ]
    }
],
    "telecom": [{
        "system": "phone",
        "value": "(+1) 734-677-7777"
    }, {
        "system": "fax",
        "value": "(+1) 734-677-6622"
    }, {
        "system": "email",
        "value": "hq@HL7.org"
    }
],
    "address": {
        "line": ["3300 Washtenaw Avenue, Suite 227"],
        "city": "Ann Arbor",
        "state": "MI",
        "postalCode": "48104",
        "country": "USA"
    },
    "physicalType": {
        "coding": [{
            "system": "http://terminology.hl7.org/CodeSystem/location-physical-type",
            "code": "bu",
            "display": "Building"
        }
    ]
    },
    "position": {
        "longitude": 42.2565,
        "latitude": -83.69471
    }
}
]
}
}

```

**[base]/Location?identifier=[system][value]**

## US Core



```
[base] / Location ? identifier = [system] | [value]

GET /Location?identifier=http://www.acme.org/location|29&_profile=http://hl7.org/fhir/us/core
/StructureDefinition/us-core-location

{
  "resourceType": "Bundle",
  "id": "61668444-ad99-47fc-94d5-087bc7772992",
  "meta": {
    "lastUpdated": "2021-01-24T02:48:59.175+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Location?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%
2FStructureDefinition%2Fus-core-location&identifier=http%3A%2F%2Fwww.acme.org%2Flocation%7C29"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Location/Loc01",
    "resource": {
      "resourceType": "Location",
      "id": "Loc01",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-11-25T06:08:40.285+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-location"],
        "tag": [{
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "fd2cfb9f-5b51-4e92-b8ca-cdd096fedf6c\t\t\t1"
        }
      ]
    },
    "identifier": [{
      "system": "http://www.acme.org/location",
      "value": "29"
    }, {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "Loc01"
    }
  ],
  "status": "active",
  "name": "Health Level Seven International - Amherst",
  "description": "HL7 Headquarters - East",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }
],
  "address": {
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  },
  "position": {
    "longitude": -72.519854,
    "latitude": 42.373222
  },
  "managingOrganization": {
    "display": "Health Level Seven International"
  }
}
]
```

## DaVinci PDEX Plan Net

```
[base] / Location ? identifier = [system] | [value]

GET      /Location?identifier=http://www.acme.org/location|29&_profile=http://hl7.org/fhir/us/davinci-pdex-
plan-net/StructureDefinition/plannet-Location

{
  "resourceType": "Bundle",
  "id": "bbec049b-6f9f-4d3f-aa5f-897aef350d29",
  "meta": {
    "lastUpdated": "2021-01-24T02:51:36.217+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Location?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-
pdex-plan-net%2FStructureDefinition%2Fplannet-Location&identifier=http%3A%2F%2Fwww.acme.org%2Flocation%7C29"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Location/Loc01",
    "resource": {
      "resourceType": "Location",
      "id": "Loc01",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-11-25T06:08:40.285+00:00",
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Location"],
        "tag": [{
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "fd2cfb9f-5b51-4e92-b8ca-cdd096fedf6c\t\t\t1"
        }
      ]
    },
    "identifier": [{
      "system": "http://www.acme.org/location",
      "value": "29"
    }, {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "Loc01"
    }
  ],
  "status": "active",
  "name": "Health Level Seven International - Amherst",
  "description": "HL7 Headquarters - East",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }
],
  "address": {
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  },
  "position": {
    "longitude": -72.519854,
    "latitude": 42.373222
  },
  "managingOrganization": {
    "display": "Health Level Seven International"
  }
}

```



```

    }
  }
]
}

```

## [base]/Location[/id]

### US Core

```

[base]/Location[/id]

GET /Location/Location2

{
  "resourceType" : "Location",
  "id" : "Location2",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-05-21T02:22:52.514+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-location"
    ]
  },
  "identifier" : [
    {
      "value" : "B1-S.F2"
    }
  ],
  "status" : "active",
  "name" : "South Wing, second floor",
  "alias" : [
    "BU MC, SW, F2",
    "Burgers University Medical Center, South Wing, second floor"
  ],
  "description" : "Second floor of the Old South Wing, formerly in use by Psychiatry",
  "mode" : "instance",
  "telecom" : [
    {
      "system" : "phone",
      "value" : "2328",
      "use" : "work"
    },
    {
      "system" : "fax",
      "value" : "2329",
      "use" : "work"
    },
    {
      "system" : "email",
      "value" : "second wing admissions"
    },
    {
      "system" : "url",
      "value" : "http://sampleorg.com/southwing",
      "use" : "work"
    }
  ],
  "address" : {
    "use" : "work",
    "line" : [
      "Galapagosweg 91, Building A"
    ],
    "city" : "Den Burg",
    "postalCode" : "9105 PZ",

```

```

    "country" : "NLD"
  },
  "physicalType" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/location-physical-type",
        "code" : "wi",
        "display" : "Wing"
      }
    ]
  },
  "position" : {
    "longitude" : -83.6945691,
    "latitude" : 42.25475478,
    "altitude" : 0
  }
}

```

## DaVinci PDEX Plan Net

```

[base]/Location[/id]

GET /Location/loc-ffmh-fhirP1

{
  "resourceType" : "Location",
  "id" : "loc-ffmh-fhirP1",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-09-24T08:23:46.849+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Location"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "6fdffae7-e46b-4c79-8d41-fbcb32c6e78[1]"
      }
    ]
  },
  "text" : {
    "status" : "generated",
    "div" : "<div xmlns='http://www.w3.org/1999/xhtml'>\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with
Details</b>\n\t\t\t</p>\n\t\t\t</div>"
  },
  "extension" : [
    {
      "url" : "http://hl7.org/fhir/uv/vhdir/StructureDefinition/accessibility",
      "valueCodeableConcept" : {
        "coding" : [
          {
            "system" : "http://hl7.org/fhir/uv/vhdir/CodeSystem/accessibility",
            "code" : "handiaccess",
            "display" : "handicap accessible"
          }
        ]
      },
      "text" : "Founding Fathers Memorial Hospital offers a variety of services and programs for
persons with disabilities"
    }
  ],
  "identifier" : [
    {
      "extension" : [
        {
          "url" : "http://hl7.org/fhir/uv/vhdir/StructureDefinition/identifier-status",
          "valueCode" : "active"
        }
      ]
    }
  ]
}

```

```
    }
  ],
  "use" : "secondary",
  "system" : "http://example.org/www.foundingfathersmemorial.com",
  "value" : "main campus"
}
],
"status" : "active",
"name" : "Founding Fathers Memorial Hospital Heart and Vascular Institute",
"description" : "Heart and Vascular Institute Specialty Wing",
"type" : [
  {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/v3-RoleCode",
        "code" : "HOSP",
        "display" : "Hospital",
        "userSelected" : true
      }
    ]
  }
],
"telecom" : [
  {
    "extension" : [
      {
        "url" : "http://hl7.org/fhir/uv/vhdir/StructureDefinition/contactpoint-availabilitytime",
        "extension" : [
          {
            "url" : "allDay",
            "valueBoolean" : true
          }
        ]
      }
    ],
    "system" : "phone",
    "value" : "212-121-0123",
    "use" : "work",
    "rank" : 1
  }
],
"address" : {
  "use" : "work",
  "type" : "both",
  "text" : "390 FM Street SW, Washington, DC 20201, USA",
  "line" : [
    "390 FM Street SW"
  ],
  "city" : "Washington",
  "state" : "DC",
  "postalCode" : "20201",
  "country" : "USA"
},
"physicalType" : {
  "coding" : [
    {
      "system" : "http://terminology.hl7.org/CodeSystem/location-physical-type",
      "code" : "si",
      "display" : "Site",
      "userSelected" : true
    }
  ]
},
"position" : {
  "longitude" : 38.8859395,
  "latitude" : -77.016469
},
"hoursOfOperation" : [
  {
    "daysOfWeek" : [
      "mon",

```

```
        "tue",
        "wed",
        "thu",
        "fri"
    ]
  },
  "availabilityExceptions" : "visiting hours from 6:00 am - 10:00 pm"
}
```

---

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# Medication

---

## Use Case

A member uses a mobile application to find out information about medications that they are taking. The application UI calls an external endpoint which returns the medication information in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Medication?code={system}][value]
- GET [base]/Medication?identifier={system}][value]
- GET [base]/Medication?manufacturer=[reference]&status={system}][value]
- GET [base]/Medication?expiration-date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]
- GET [base]/Medication?ingredient={system}][value]
- GET [base]/Medication[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Medication Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Medication?code={system}|[value]

```
[base] /Medication?code = {system}|[value]

GET      /Medication?code=http://snomed.info/sct|430127000

{
  "resourceType": "Bundle",
  "id": "1a3cfeca-3d21-4665-8634-e25d13245205",
  "meta": {
    "lastUpdated": "2021-01-26T00:32:53.818+00:00"
  },
  "type": "searchset",
  "total": 4,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Medication?code=430127000"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=c8628713-0b7e-53ff-a93f-3cd9e4319617&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Medication/a3e36e9f-f7bf-4b51-8029-7018424dc59e",
    "resource": {
      "resourceType": "Medication",
      "id": "a3e36e9f-f7bf-4b51-8029-7018424dc59e",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-08-07T14:41:24.436+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-medication"],
        "tag": [{
```

```

        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "040799f7-c8a3-4506-8579-1d85a487701c\t\t\t1"
    }
  ],
  "text": {
    "status": "generated",
    "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: med0310</p><p><b>contained</b>: </p><p><b>code</b>: Oral Form Oxycodone
(product) <span>(Details : {SNOMED CT code '430127000' = 'Oral form oxycodone', given as 'Oral Form
Oxycodone (product)'})</span></p><p><b>form</b>: Tablet dose form (qualifier value) <span>(Details :
{SNOMED CT code '385055001' = 'Tablet', given as 'Tablet dose form (qualifier value)'})</span><
/p><h3>Ingredients</h3><table><tr><td></td><td><b>Item[x]</b></td><td><b>Strength</b></td></tr><tr><td>*<
/td><td>id: sub03; Oxycodone (substance) <span>(Details : {SNOMED CT code '55452001' = 'Oxycodone', given
as 'Oxycodone (substance)'})</span></td><td>5 mg<span> (Details: UCUM code mg = 'mg')</span>/1 TAB<span>
(Details: http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm code TAB = 'Tablet')</span></td></tr><
/table></div>"
  },
  "identifier": [{
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "a3e36e9f-f7bf-4b51-8029-7018424dc59e"
  }
],
  "code": {
    "coding": [{
      "system": "http://snomed.info/sct",
      "code": "430127000",
      "display": "Oral Form Oxycodone (product)"
    }
  ]
},
  "status": "active",
  "form": {
    "coding": [{
      "system": "http://snomed.info/sct",
      "code": "385055001",
      "display": "Tablet dose form (qualifier value)"
    }
  ]
},
  "ingredient": [{
    "itemReference": {
      "reference": "http://example.org/fhir/Substance/sub03"
    },
    "strength": {
      "numerator": {
        "value": 5,
        "system": "http://unitsofmeasure.org",
        "code": "mg"
      },
      "denominator": {
        "value": 1,
        "system": "http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm",
        "code": "TAB"
      }
    }
  }
]
}, {
  "fullUrl": "https://<datahub_server>/Medication/ff3b58c8-1c99-4e35-844e-3d699d2be7fb",
  "resource": {
    "resourceType": "Medication",
    "id": "ff3b58c8-1c99-4e35-844e-3d699d2be7fb",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-08-07T14:42:16.100+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-medication"],
      "tag": [{

```

```
    "system": "tranzform-apim-request-ns",
    "code": "user-request-id",
    "display": "12b9a4a8-af7c-43f7-9f7e-840aca3314f1\t\t\t1"
  }
}
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: med0310</p><p><b>contained</b>: </p><p><b>code</b>: Oral Form Oxycodone
(product) <span>(Details : {SNOMED CT code '430127000' = 'Oral form oxycodone', given as 'Oral Form
Oxycodone (product)'})</span></p><p><b>form</b>: Tablet dose form (qualifier value) <span>(Details :
{SNOMED CT code '385055001' = 'Tablet', given as 'Tablet dose form (qualifier value)'})</span><
/p><h3>Ingredients</h3><table><tr><td>-</td><td><b>Item[x]</b></td><td><b>Strength</b></td></tr><tr><td>*<
/td><td>id: sub03; Oxycodone (substance) <span>(Details : {SNOMED CT code '55452001' = 'Oxycodone', given
as 'Oxycodone (substance)'})</span></td><td>5 mg<span> (Details: UCUM code mg = 'mg')</span>/1 TAB<span>
(Details: http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm code TAB = 'Tablet')</span></td></tr></table></div>"
},
"identifier": [{
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "ff3b58c8-1c99-4e35-844e-3d699d2be7fb"
}],
"code": {
  "coding": [{
    "system": "http://snomed.info/sct",
    "code": "430127000",
    "display": "Oral Form Oxycodone (product)"
  }]
},
"form": {
  "coding": [{
    "system": "http://snomed.info/sct",
    "code": "385055001",
    "display": "Tablet dose form (qualifier value)"
  }]
},
"ingredient": [{
  "itemReference": {
    "reference": "Substance/sub03"
  },
  "strength": {
    "numerator": {
      "value": 5,
      "system": "http://unitsofmeasure.org",
      "code": "mg"
    },
    "denominator": {
      "value": 1,
      "system": "http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm",
      "code": "TAB"
    }
  }
}]
}]
}
```

[base]/Medication?identifier={system}][value]

[base /Medication?identifier = {system}][value]



```

GET /Medication?identifier=6d85a9f1-eef2-4758-be43-1a3d8144096b

{
  "resourceType": "Bundle",
  "id": "3e8c7235-1807-4286-b654-9176f5d22cd0",
  "meta": {
    "lastUpdated": "2021-01-26T00:34:45.307+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Medication?identifier=6d85a9f1-eef2-4758-be43-
1a3d8144096b"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Medication/656565745",
    "resource": {
      "resourceType": "Medication",
      "id": "656565745",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-08-07T14:56:20.059+00:00",
        "profile": [ "http://hl7.org/fhir/us/core/StructureDefinition/us-core-
medication" ],
        "tag": [{
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "a60d6efb-08d4-40a1-b41a-3df17ef38d91\t\t\t1"
        }
      ],
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative
with Details</b></p><p><b>id</b>: med0308</p><p><b>contained</b>: </p><p><b>code</b>: Percocet tablet <span>
(Details : {http://hl7.org/fhir/sid/ndc code '16590-619-30' = 'n/a', given as 'Percocet tablet'})</span><
/p><p><b>manufacturer</b>: id: org1; name: Stat Rx USA LLC</p><p><b>form</b>: Tablet dose form (qualifier
value) <span>(Details : {SNOMED CT code '385055001' = 'Tablet', given as 'Tablet dose form (qualifier
value)'}</span></p><blockquote><p><b>ingredient</b></p><p><b>item</b>: Oxycodone HCl <span>(Details :
{RxNorm code '82063' = 'Oxycodone Hydrochloride', given as 'Oxycodone HCl'})</span></p><p><b>strength</b>:
5 mg<span> (Details: UCUM code mg = 'mg')</span>/1 TAB<span> (Details: http://terminology.hl7.org/CodeSystem
/v3-orderableDrugForm code TAB = 'Tablet')</span></p></blockquote><blockquote><p><b>ingredient</b><
/p><p><b>item</b>: Acetaminophen <span>(Details : {RxNorm code '161' = 'Acetaminophen', given as
'Acetaminophen'})</span></p><p><b>strength</b>: 325 mg<span> (Details: UCUM code mg = 'mg')</span>/1
TAB<span> (Details: http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm code TAB = 'Tablet')</span><
/p></blockquote><h3>Batches</h3><table><tr><td>-</td><td><b>LotNumber</b></td><td><b>ExpirationDate</b><
/td></tr><tr><td>*</td><td>658484</td><td>31/07/2020</td></tr></table></div>"
      },
      "identifier": [{
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "6d85a9f1-eef2-4758-be43-1a3d8144096b"
      }
    ],
    "code": {
      "coding": [{
        "system": "http://hl7.org/fhir/sid/ndc",
        "code": "16590-619-30",
        "display": "Percocet tablet"
      }
    ]
  },
  "manufacturer": {
    "reference": "Organization/org1"
  },
  "form": {
    "coding": [{
      "system": "http://snomed.info/sct",

```

```

        "code": "385055001",
        "display": "Tablet dose form (qualifier value)"
      }
    ]
  },
  "ingredient": [{
    "itemCodeableConcept": {
      "coding": [{
        "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
        "code": "82063",
        "display": "Oxycodone HCl"
      }
    ]
  },
  "strength": {
    "numerator": {
      "value": 5,
      "system": "http://unitsofmeasure.org",
      "code": "mg"
    },
    "denominator": {
      "value": 1,
      "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
      "code": "TAB"
    }
  }
}, {
  "itemCodeableConcept": {
    "coding": [{
      "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
      "code": "161",
      "display": "Acetaminophen"
    }
  ]
},
  "strength": {
    "numerator": {
      "value": 325,
      "system": "http://unitsofmeasure.org",
      "code": "mg"
    },
    "denominator": {
      "value": 1,
      "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
      "code": "TAB"
    }
  }
},
  "batch": {
    "lotNumber": "658484",
    "expirationDate": "2020-07-31"
  }
}
]
}

```

[base]/Medication?manufacturer=[reference]&status={system}][value]

```
[base] /Medication?manufacturer = [reference] & status = {system}][value]
```

```
GET /Medication?manufacturer=org1
```

```
{
```

```

"resourceType": "Bundle",
"id": "39d8c095-8412-4d62-8f15-ae159719abec",
"meta": {
  "lastUpdated": "2021-01-26T00:32:00.976+00:00"
},
"type": "searchset",
"total": 2,
"link": [{
  "relation": "self",
  "url": "https://<datahub_server>/Medication?manufacturer=org1"
}
],
"entry": [{
  "fullUrl": "https://<datahub_server>/Medication/656565745",
  "resource": {
    "resourceType": "Medication",
    "id": "656565745",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-08-07T14:56:20.059+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-
medication"],
      "tag": [{
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "a60d6efb-08d4-40a1-b41a-3df17ef38d91\t\t\t\t1"
      }
    ]
  },
  "text": {
    "status": "generated",
    "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated
Narrative with Details</b></p><p><b>id</b>: med0308</p><p><b>contained</b>: </p><p><b>code</b>: Percocet
tablet <span>(Details : {http://hl7.org/fhir/sid/ndc code '16590-619-30' = 'n/a', given as 'Percocet
tablet'})</span></p><p><b>manufacturer</b>: id: org1; name: Stat Rx USA LLC</p><p><b>form</b>: Tablet dose
form (qualifier value) <span>(Details : {SNOMED CT code '385055001' = 'Tablet', given as 'Tablet dose form
(qualifier value)')</span></p><p><b>ingredient</b></p><p><b>item</b>: Oxycodone HCl <span>
(Details : {RxNorm code '82063' = 'Oxycodone Hydrochloride', given as 'Oxycodone HCl'})</span><
/p><p><b>strength</b>: 5 mg<span> (Details: UCUM code mg = 'mg')</span>/1 TAB<span> (Details:
http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm code TAB = 'Tablet')</span></p><
/blockquote><p><b>ingredient</b></p><p><b>item</b>: Acetaminophen <span>(Details : {RxNorm code
'161' = 'Acetaminophen', given as 'Acetaminophen'})</span></p><p><b>strength</b>: 325 mg<span> (Details:
UCUM code mg = 'mg')</span>/1 TAB<span> (Details: http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm code TAB = 'Tablet')</span></p></blockquote><h3>Batches</h3><table><tr><td>-<
/td><td><b>LotNumber</b></td><td><b>ExpirationDate</b></td></tr><tr><td>*</td><td>658484</td><td>31/07/2020<
/td></tr></table></div>"
  },
  "identifier": [{
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "6d85a9f1-eef2-4758-be43-1a3d8144096b"
  }
],
  "code": {
    "coding": [{
      "system": "http://hl7.org/fhir/sid/ndc",
      "code": "16590-619-30",
      "display": "Percocet tablet"
    }
  ]
},
  "manufacturer": {
    "reference": "Organization/org1"
  },
  "form": {
    "coding": [{
      "system": "http://snomed.info/sct",
      "code": "385055001",
      "display": "Tablet dose form (qualifier value)"
    }
  ]
}
]

```

```

    },
    "ingredient": [ {
      "itemCodeableConcept": {
        "coding": [ {
          "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
          "code": "82063",
          "display": "Oxycodone HCl"
        }
      ]
    },
    "strength": {
      "numerator": {
        "value": 5,
        "system": "http://unitsofmeasure.org",
        "code": "mg"
      },
      "denominator": {
        "value": 1,
        "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
        "code": "TAB"
      }
    }
  }, {
    "itemCodeableConcept": {
      "coding": [ {
        "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
        "code": "161",
        "display": "Acetaminophen"
      }
    ]
  },
  "strength": {
    "numerator": {
      "value": 325,
      "system": "http://unitsofmeasure.org",
      "code": "mg"
    },
    "denominator": {
      "value": 1,
      "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
      "code": "TAB"
    }
  }
],
"batch": {
  "lotNumber": "658484",
  "expirationDate": "2020-07-31"
}
}, {
  "fullUrl": "https://<datahub_server>/Medication/0308",
  "resource": {
    "resourceType": "Medication",
    "id": "0308",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-
medication"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated
Narrative with Details</b></p><p><b>id</b>: med0308</p><p><b>contained</b>: </p><p><b>code</b>: Percocet
tablet <span>(Details : {http://hl7.org/fhir/sid/ndc code '16590-619-30' = 'n/a', given as 'Percocet
tablet'})</span></p><p><b>manufacturer</b>: id: orgl; name: Stat Rx USA LLC</p><p><b>form</b>: Tablet dose
form (qualifier value) <span>(Details : {SNOMED CT code '385055001' = 'Tablet', given as 'Tablet dose form
(qualifier value)})</span></p><b>blockquote><p><b>ingredient</b></p><p><b>item</b>: Oxycodone HCl <span>
(Details : {RxNorm code '82063' = 'Oxycodone Hydrochloride', given as 'Oxycodone HCl'})</span><
/p><p><b>strength</b>: 5 mg<span> (Details: UCUM code mg = 'mg')</span>/1 TAB<span> (Details:

```

```

http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm code TAB = 'Tablet')</span></p><
/blockquote><blockquote><p><b>ingredient</b></p><p><b>item</b>: Acetaminophen <span>(Details : {RxNorm code
'161' = 'Acetaminophen', given as 'Acetaminophen'})</span></p><p><b>strength</b>: 325 mg<span> (Details:
UCUM code mg = 'mg')</span>/1 TAB<span> (Details: http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm code TAB = 'Tablet')</span></p></blockquote><h3>Batches</h3><table><tr><td>--
</td><td><b>LotNumber</b></td><td><b>ExpirationDate</b></td></tr><tr><td>*</td><td>658484</td><td>31/07/2020<
</td></tr></table></div>"

```

```

    },
    "contained": [ {
      "resourceType": "Organization",
      "id": "org1",
      "name": "Stat Rx USA LLC"
    }
  ],
  "code": {
    "coding": [ {
      "system": "http://hl7.org/fhir/sid/ndc",
      "code": "16590-619-30",
      "display": "Percocet tablet"
    }
  ]
},
"manufacturer": {
  "reference": "#org1"
},
"form": {
  "coding": [ {
    "system": "http://snomed.info/sct",
    "code": "385055001",
    "display": "Tablet dose form (qualifier value)"
  }
]
},
"ingredient": [ {
  "itemCodeableConcept": {
    "coding": [ {
      "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
      "code": "82063",
      "display": "Oxycodone HCl"
    }
  ]
},
"strength": {
  "numerator": {
    "value": 5,
    "system": "http://unitsofmeasure.org",
    "code": "mg"
  },
  "denominator": {
    "value": 1,
    "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
    "code": "TAB"
  }
}
}, {
  "itemCodeableConcept": {
    "coding": [ {
      "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
      "code": "161",
      "display": "Acetaminophen"
    }
  ]
},
"strength": {
  "numerator": {
    "value": 325,
    "system": "http://unitsofmeasure.org",
    "code": "mg"
  },
  "denominator": {

```

```

        "value": 1,
        "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
        "code": "TAB"
    }
  }
},
"batch": {
  "lotNumber": "658484",
  "expirationDate": "2020-07-31"
}
}
]
}

```

[base]/Medication?expiration-date={gt|lt|ge|le}[date]&date={gt|lt|ge|le}[date]

```

[base]/Medication?expiration-date={gt|lt|ge|le}[date]&date={gt|lt|ge|le}[date]

GET /Medication?expiration-date=gt2016-01-01

{
  "resourceType": "Bundle",
  "id": "abe8a97c-686f-45df-adle-603064711e10",
  "meta": {
    "lastUpdated": "2021-01-26T00:31:09.616+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Medication?expiration-date=gt2016-01-01"
  }],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Medication/656565745",
    "resource": {
      "resourceType": "Medication",
      "id": "656565745",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-08-07T14:56:20.059+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-
medication"],
        "tag": [{
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "a60d6efb-08d4-40a1-b41a-3df17ef38d91\t\t\t1"
        }],
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated
Narrative with Details</b></p><p><b>id</b>: med0308</p><p><b>contained</b>: </p><p><b>code</b>: Percocet
tablet <span>(Details : {http://hl7.org/fhir/sid/ndc code '16590-619-30' = 'n/a', given as 'Percocet
tablet'})</span></p><p><b>manufacturer</b>: id: org1; name: Stat Rx USA LLC</p><p><b>form</b>: Tablet dose
form (qualifier value) <span>(Details : {SNOMED CT code '385055001' = 'Tablet', given as 'Tablet dose form
(qualifier value)})</span></p><p><b>ingredient</b></p><p><b>item</b>: Oxycodone HCl <span>
(Details : {RxNorm code '82063' = 'Oxycodone Hydrochloride', given as 'Oxycodone HCl'})</span><
/p><p><b>strength</b>: 5 mg<span> (Details: UCUM code mg = 'mg')</span>/1 TAB<span> (Details:
http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm code TAB = 'Tablet')</span></p><
/blockquote><blockquote><p><b>ingredient</b></p><p><b>item</b>: Acetaminophen <span>(Details : {RxNorm code
'161' = 'Acetaminophen', given as 'Acetaminophen'})</span></p><p><b>strength</b>: 325 mg<span> (Details:

```

```
UCUM code mg = 'mg')</span>/1 TAB<span> (Details: http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm code TAB = 'Tablet')</span></p></blockquote><h3>Batches</h3><table><tr><td>-<
/td><td><b>LotNumber</b></td><td><b>ExpirationDate</b></td></tr><tr><td>*</td><td>658484</td><td>31/07/2020<
/td></tr></table></div>"
```

```

    },
    "identifier": [{
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-
identifier",
      "value": "6d85a9f1-eef2-4758-be43-1a3d8144096b"
    }
  ],
  "code": {
    "coding": [{
      "system": "http://hl7.org/fhir/sid/ndc",
      "code": "16590-619-30",
      "display": "Percocet tablet"
    }
  ]
},
"manufacturer": {
  "reference": "Organization/org1"
},
"form": {
  "coding": [{
    "system": "http://snomed.info/sct",
    "code": "385055001",
    "display": "Tablet dose form (qualifier value)"
  }
]
},
"ingredient": [{
  "itemCodeableConcept": {
    "coding": [{
      "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
      "code": "82063",
      "display": "Oxycodone HCl"
    }
  ]
},
  "strength": {
    "numerator": {
      "value": 5,
      "system": "http://unitsofmeasure.org",
      "code": "mg"
    },
    "denominator": {
      "value": 1,
      "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
      "code": "TAB"
    }
  }
}, {
  "itemCodeableConcept": {
    "coding": [{
      "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
      "code": "161",
      "display": "Acetaminophen"
    }
  ]
},
  "strength": {
    "numerator": {
      "value": 325,
      "system": "http://unitsofmeasure.org",
      "code": "mg"
    },
    "denominator": {
      "value": 1,
      "system": "http://terminology.hl7.org/CodeSystem/v3-
```





```

    },
    "strength": {
      "numerator": {
        "value": 5,
        "system": "http://unitsofmeasure.org",
        "code": "mg"
      },
      "denominator": {
        "value": 1,
        "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
        "code": "TAB"
      }
    }
  }, {
    "itemCodeableConcept": {
      "coding": [{
        "system": "http://www.nlm.nih.gov/research/umls/rxnorm",
        "code": "161",
        "display": "Acetaminophen"
      }
    ]
  },
  "strength": {
    "numerator": {
      "value": 325,
      "system": "http://unitsofmeasure.org",
      "code": "mg"
    },
    "denominator": {
      "value": 1,
      "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
      "code": "TAB"
    }
  }
},
],
"batch": {
  "lotNumber": "658484",
  "expirationDate": "2020-07-31"
}
}
]
}

```

[base]/Medication[id]

```

[base]/Medication[/id]

GET /Medication/medingitemref01

{
  "resourceType" : "Medication",
  "id" : "medingitemref01",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-08-02T22:41:40.913+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-medication"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "489b7508-8e10-4b43-8035-40b1e3d39f9e[1]"
      }
    ]
  },
  "code" : {
    "coding" : [
      {
        "system" : "http://snomed.info/sct",
        "code" : "430127000",
        "display" : "Oral Form Oxycodone (product)"
      }
    ]
  },
  "form" : {
    "coding" : [
      {
        "system" : "http://snomed.info/sct",
        "code" : "385055001",
        "display" : "Tablet dose form (qualifier value)"
      }
    ]
  },
  "ingredient" : [
    {
      "itemReference" : {
        "reference" : "Medication/Medingest011",
        "type" : "Medication"
      },
      "strength" : {
        "numerator" : {
          "value" : 5,
          "system" : "http://unitsofmeasure.org",
          "code" : "mg"
        },
        "denominator" : {
          "value" : 1,
          "system" : "http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm",
          "code" : "TAB"
        }
      }
    }
  ]
}

```

---

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# MedicationDispense

---

## Use Case

A member has been prescribed a medication. The prescription has been sent to their pharmacy. When the pharmacy system responds to the medication order for the member, the result is a medication dispense. The MedicationDispense is an event resource from the perspective of a FHIR workflow. It includes a description of the medication and instructions for administering the medication.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/MedicationDispense?medication=[reference]
- GET [base]/MedicationDispense?code={system}][value]
- GET [base]/MedicationDispense?patient=[reference]
- GET [base]/MedicationDispense?patient=[reference]&status={system}][value]
- GET [base]/MedicationDispense?subject=[reference]
- GET [base]/MedicationDispense?subject=[reference]&status={system}][value]
- GET [base]/MedicationDispense/{id}

## Response Parameters

The response parameters for the GET method are as follows:

- [R4 MedicationDispense](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/MedicationDispense?patient=[reference]]&status={system}][value]

```
[base]/MedicationDispense?patient=[reference]]&status={system}][value]
GET /MedicationDispense?patient=Ptp01&status=completed
{
  "resourceType": "Bundle",
  "id": "d19bf137-437b-4dd1-be71-fd9d6fc6e3ba",
  "meta": {
    "lastUpdated": "2021-05-04T16:29:30.464+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/datahub/fhir/MedicationDispense?patient=Ptp01&status=completed"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/datahub/fhir/MedicationDispense/meddisp008",
      "resource": {
        "resourceType": "MedicationDispense",
        "id": "meddisp008",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2021-03-19T23:53:24.720+00:00",
          "profile": [
            "http://hl7.org/fhir/StructureDefinition/MedicationDispense"
          ],
          "tag": [
            {

```

```

        "system": "http://terminology.hl7.org/CodeSystem/common-tags",
        "code": "user-request-id",
        "display": "fdae47d3-a42b-4fe5-b503-44316a4b638b\t\t\t1"
      }
    ],
  },
  "identifier": [
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "meddisp008"
    },
    {
      "system": "http://terminology.hl7.org/CodeSystem/common-tags/source-system-id/apim",
      "value": "meddisp008"
    },
    {
      "use": "official",
      "system": "http://terminology.hl7.org/CodeSystem/common-tags/logical-identifier",
      "value": "meddisp008"
    }
  ],
  "status": "completed",
  "category": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/fhir/CodeSystem/medicationdispense-
category",
        "code": "outpatient",
        "display": "Outpatient"
      }
    ]
  },
  "medicationCodeableConcept": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/sid/ndc",
        "code": "49999-051-30",
        "display": "Vicodin 5mg Hydrocodone, 500mg Acetaminophen tablet "
      }
    ]
  },
  "subject": {
    "reference": "Patient/Ptp01"
  },
  "performer": [
    {
      "function": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/medicationdispense-
performer-function",
            "code": "finalchecker",
            "display": "Final Checker"
          }
        ]
      },
      "actor": {
        "reference": "Practitioner/Pracp01"
      }
    }
  ],
  "location": {
    "reference": "Location/Loep01"
  },
  "type": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/v3-ActCode",
        "code": "EM",
        "display": "Emergency Supply"
      }
    ]
  }
}

```

```

    }
  ]
},
"quantity": {
  "value": 12,
  "unit": "Vial",
  "system": "http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm",
  "code": "Vial"
},
"daysSupply": {
  "value": 3,
  "unit": "Day",
  "system": "http://unitsofmeasure.org",
  "code": "d"
},
"whenPrepared": "2015-01-15T10:20:00Z",
"whenHandedOver": "2015-01-15T16:20:00Z",
"destination": {
  "reference": "Location/Locp01"
},
"receiver": [
  {
    "reference": "Patient/Ptp01"
  }
],
"dosageInstruction": [
  {
    "sequence": 1,
    "text": "one to two tablets every 4-6 hours as needed for rib pain",
    "additionalInstruction": [
      {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "418914006",
            "display": "Warning. May cause drowsiness. If affected do not drive
or operate machinery. Avoid alcoholic drink (qualifier value)"
          }
        ]
      }
    ]
  }
],
"timing": {
  "event": [
    "2015-01-15T22:00:00+11:00"
  ],
  "repeat": {
    "frequency": 3,
    "period": 1,
    "periodUnit": "d"
  }
},
"asNeededCodeableConcept": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "297217002",
      "display": "Rib Pain (finding)"
    }
  ]
},
"route": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "394899003",
      "display": "oral administration of treatment"
    }
  ]
},
"method": {
  "coding": [

```

```

        {
          "system": "http://snomed.info/sct",
          "code": "420620005",
          "display": "Push - dosing instruction imperative (qualifier value)"
        }
      ],
      "doseAndRate": [
        {
          "type": {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/dose-rate-
type",
                "code": "ordered",
                "display": "Ordered"
              }
            ]
          },
          "doseRange": {
            "low": {
              "value": 1,
              "unit": "TAB",
              "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
              "code": "TAB"
            },
            "high": {
              "value": 2,
              "unit": "TAB",
              "system": "http://terminology.hl7.org/CodeSystem/v3-
orderableDrugForm",
              "code": "TAB"
            }
          },
          "rateRatio": {
            "numerator": {
              "value": 100,
              "system": "http://unitsofmeasure.org",
              "code": "mL"
            },
            "denominator": {
              "value": 1,
              "system": "http://unitsofmeasure.org",
              "code": "d"
            }
          }
        }
      ]
    },
    "substitution": {
      "wasSubstituted": true,
      "type": {
        "coding": [
          {
            "system": "https://www.hl7.org/fhir/v3/substanceAdminSubstitution/cs.html",
            "code": "E",
            "display": "equivalent"
          }
        ]
      }
    }
  ]
}

```



## [base]/MedicationDispense[/id]

```
[base]/MedicationDispense[/id]
```

```
GET /MedicationDispense/MedDispl
```

```
{
  "resourceType" : "MedicationDispense",
  "id" : "MedDispl",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2019-12-18T23:57:06.000-05:00",
    "profile" : [
      "http://hl7.org/fhir/StructureDefinition/MedicationDispense"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "e226835b-d6bf-4593-8097-acca65251884[1]"
      },
      {
        "code" : "SecurityLabelStamped"
      }
    ]
  },
  "text" : {
    "status" : "generated",
    "div" : "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with
Details</b>\n\t\t\t</p>\n\t\t\t</div>"
  },
  "status" : "completed",
  "category" : {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/fhir/CodeSystem/medicationdispense-category",
        "code" : "outpatient",
        "display" : "Outpatient"
      }
    ]
  },
  "medicationCodeableConcept" : {
    "coding" : [
      {
        "system" : "http://hl7.org/fhir/sid/ndc",
        "code" : "49999-051-30",
        "display" : "Vicodin 5mg Hydrocodone, 500mg Acetaminophen tablet "
      }
    ]
  },
  "subject" : {
    "reference" : "Patient/08b21d30-031d-59de-87c9-bcf56476ba9a",
    "type" : "Patient"
  },
  "performer" : [
    {
      "function" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/medicationdispense-performer-function",
            "code" : "finalchecker",
            "display" : "Final Checker"
          }
        ]
      },
      "actor" : {
        "reference" : "Practitioner/1847202b-c4de-5941-b852-3cc7ca638106"
      }
    }
  ]
}
```

```

    ],
    "location" : {
      "reference" : "Location/1"
    },
    "type" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/v3-ActCode",
          "code" : "EM",
          "display" : "Emergency Supply"
        }
      ]
    },
    "quantity" : {
      "value" : 12,
      "unit" : "Vial",
      "system" : "http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm",
      "code" : "Vial"
    },
    "daysSupply" : {
      "value" : 3,
      "unit" : "Day",
      "system" : "http://unitsofmeasure.org",
      "code" : "d"
    },
    "whenPrepared" : "2015-01-15T10:20:00Z",
    "whenHandedOver" : "2015-01-15T16:20:00Z",
    "destination" : {
      "reference" : "Location/1"
    },
    "receiver" : [
      {
        "reference" : "Patient/08b21d30-031d-59de-87c9-bcf56476ba9a"
      }
    ],
    "dosageInstruction" : [
      {
        "sequence" : 1,
        "text" : "One to two tablets every 4-6 hours as needed for rib pain",
        "additionalInstruction" : [
          {
            "coding" : [
              {
                "system" : "http://snomed.info/sct",
                "code" : "418914006",
                "display" : "Warning. May cause drowsiness. If affected do not drive or operate machinery. Avoid alcoholic drink (qualifier value)"
              }
            ]
          }
        ]
      }
    ],
    "timing" : {
      "event" : [
        "2015-01-15T22:00:00+11:00"
      ],
      "repeat" : {
        "frequency" : 3,
        "period" : 1,
        "periodUnit" : "d"
      }
    },
    "asNeededCodeableConcept" : {
      "coding" : [
        {
          "system" : "http://snomed.info/sct",
          "code" : "297217002",
          "display" : "Rib Pain (finding)"
        }
      ]
    },
    "route" : {

```

```
    "coding" : [
      {
        "system" : "http://snomed.info/sct",
        "code" : "394899003",
        "display" : "oral administration of treatment"
      }
    ]
  },
  "method" : {
    "coding" : [
      {
        "system" : "http://snomed.info/sct",
        "code" : "420620005",
        "display" : "Push - dosing instruction imperative (qualifier value)"
      }
    ]
  },
  "doseAndRate" : [
    {
      "type" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/dose-rate-type",
            "code" : "ordered",
            "display" : "Ordered"
          }
        ]
      },
      "doseRange" : {
        "low" : {
          "value" : 1,
          "unit" : "TAB",
          "system" : "http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm",
          "code" : "TAB"
        },
        "high" : {
          "value" : 2,
          "unit" : "TAB",
          "system" : "http://terminology.hl7.org/CodeSystem/v3-orderableDrugForm",
          "code" : "TAB"
        }
      },
      "rateRatio" : {
        "numerator" : {
          "value" : 100,
          "system" : "http://unitsofmeasure.org",
          "code" : "mL"
        },
        "denominator" : {
          "value" : 1,
          "system" : "http://unitsofmeasure.org",
          "code" : "d"
        }
      }
    }
  ]
},
"substitution" : {
  "wasSubstituted" : true,
  "type" : {
    "coding" : [
      {
        "system" : "https://www.hl7.org/fhir/v3/substanceAdminSubstitution/cs.html",
        "code" : "E",
        "display" : "equivalent"
      }
    ]
  }
}
```

---

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# MedicationKnowledge

## Use Case

A member access a mobile application to view information about a medication that they have been prescribed. The application UI calls an external endpoint which returns information about the drug, such as images of the drug, the classification of the drug, costs, and so on. The application translates the information and displays it to the member.

## Supported GET requests

- [base]/MedicationKnowledge?DrugPlan={system}}[code]
- [base]/MedicationKnowledge?DrugTier={system}}[code]
- [base]/MedicationKnowledge?DrugTier={system}}[code]&DrugPlan={system}}[code]
- [base]/MedicationKnowledge?code={system}}[code]
- [base]/MedicationKnowledge?code={system}}[code]&DrugPlan={system}}[code]

## Response parameters

[MedicationKnowledge Profile](#)

## Error codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
500	Internal server error.

## Sample requests and responses

[base]/MedicationKnowledge?DrugPlan={system}}[code]

```
[base]/MedicationKnowledge?DrugPlan={system}}[code]
```

[base]/MedicationKnowledge?DrugTier={system|}[code]

```
[base]/MedicationKnowledge?DrugTier={system|}[code]
```

[base]/MedicationKnowledge?DrugTier={system|}[code]&DrugPlan={system|}[code]

```
[base]/MedicationKnowledge?DrugTier={system|}[code]&DrugPlan={system|}[code]
```

[base]/MedicationKnowledge?code={system|}[code]

```
[base]/MedicationKnowledge?code={system|}[code]
```

[base]/MedicationKnowledge?code={system|}[code]&DrugPlan={system|}[code]

```
[base]/MedicationKnowledge?code={system|}[code]&DrugPlan={system|}[code]
```

---

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# MedicationRequest

---

## Use Case

A member has been prescribed a medication by their provider. They use a mobile application to request a refill of a medication they are currently taking. The application UI calls an external endpoint which sends the medication information in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/MedicationRequest?patient=[reference]&intent=order&status={system}][value]
- GET [base]/MedicationRequest[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core MedicationRequest Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/MedicationRequest?patient=[reference]&intent=order&status={system}][value]

```
[base] / MedicationRequest ? patient = [reference] & intent = order & status = {system} | [value]
GET /MedicationRequest?patient=M12345&intent=order&status=completed&_include=MedicationRequest:medication

{
  "resourceType": "Bundle",
  "id": "b6c09375-4767-410f-9c2a-da6af33bdb23",
  "meta": {
    "lastUpdated": "2021-01-25T00:17:00.494+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/MedicationRequest?_include=MedicationRequest%
3Amedication&intent=order&patient=M12345&status=completed"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/MedicationRequest/619185",
    "resource": {
      "resourceType": "MedicationRequest",
      "id": "619185",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-02-11T09:03:51.446+00:00",
        "source": "#YiCB0BwbDHT3gseI",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-
medicationrequest"],
        "tag": [{
          "system": "tranzform-apim-request-ns",
```



```

        "code": "user-request-id",
        "display": "9287d12e-78a8-4884-8b8d-c8b8e849daff\t\t\t1"
      }
    ],
  },
  "identifier": [{
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "619185"
  }
],
"status": "completed",
"intent": "order",
"medicationReference": {
  "reference": "Medication/162609"
},
"subject": {
  "reference": "Patient/M12345"
},
"dosageInstruction": [{
  "text": "10 drops four times daily - apply in mouth using cotton swab or finger",
  "route": {
    "coding": [{
      "code": "12345",
      "display": "ORAAL"
    }
  ],
  "text": "ORAAL"
},
  "doseAndRate": [{
    "doseQuantity": {
      "value": 10,
      "unit": "mg",
      "system": "http://terminology.hl7.org/CodeSystem/dose-rate-type",
      "code": "12346"
    }
  }
]
},
"dispenseRequest": {
  "validityPeriod": {
    "start": "2015-01-15",
    "end": "2016-01-15"
  }
},
"search": {
  "mode": "match"
},
{
  "fullUrl": "https://<datahub_server>/Medication/162609",
  "resource": {
    "resourceType": "Medication",
    "id": "162609",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-11-25T06:08:40.847+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-medication"]
    },
    "identifier": [{
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "162609"
    }
  ],
  "code": {
    "coding": [{
      "system": "http://www.whocc.no/atc",
      "code": "J05AG01",
      "display": "NEVIRAPINE"
    }
  ]
}

```

```

        },
        "text": "NEVIRAPINE TABLET MGA 400MG"
    },
    },
    "search": {
        "mode": "include"
    }
}
]
}

```

## [base]/MedicationRequest[/id]

```

[base]/MedicationRequest[/id]
GET /MedicationRequest/WA-1916441414371409993

{
  "resourceType": "MedicationRequest",
  "id": "WA-1916441414371409993",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2021-06-01T12:31:38.387-07:00",
    "source": "ODS",
    "profile": [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-medicationrequest"
    ]
  },
  "identifier": [
    {
      "use": "official",
      "type": {
        "coding": [
          {
            "system": "http://tzfhealthcare.com/Pharmacy",
            "code": "RXN",
            "display": "Prescription Or Service Reference Number"
          }
        ]
      },
      "text": "PrescriptionOrServiceReferenceNumberRx_Number"
    },
    {
      "value": "1176171",
      "period": {
        "start": "2019-06-13T00:00:00-07:00",
        "end": "2019-06-13T00:00:00-07:00"
      }
    },
    {
      "use": "official",
      "type": {
        "coding": [
          {
            "system": "http://tzfhealthcare.com/Claim",
            "code": "CLM",
            "display": "Claim number"
          }
        ]
      },
      "text": "RxClaimNumber"
    },
    {
      "value": "191644141437140",
      "period": {
        "start": "2019-06-13T00:00:00-07:00",
        "end": "2019-06-13T00:00:00-07:00"
      }
    }
  ],
  "status": "active",

```

```
"intent" : "proposal",
"reportedBoolean" : false,
"medicationCodeableConcept" : {
  "text" : "00406012510          : 00406012510"
},
"subject" : {
  "reference" : "Patient/Ptp05",
  "type" : "Patient"
},
"authoredOn" : "2019-06-13T00:00:00-07:00",
"requester" : {
  "reference" : "Practitioner/Pracp05"
},
"dosageInstruction" : [
  {
    "text" : "TABS",
    "method" : {
      "text" : "30"
    }
  }
],
"dispenseRequest" : {
  "initialFill" : {
    "quantity" : {
      "value" : -90
    },
    "duration" : {
      "value" : -30,
      "system" : "http://unitsofmeasure.org",
      "code" : "EA"
    }
  },
  "numberOfRepeatsAllowed" : 0
}
```

---

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# Observation - Laboratory Result

---

## Use Case

The laboratory result observation profile represents an individual test and result, or a nested set of tests, such as microbial susceptibility panel. The DiagnosticReport endpoint is used to group and summarize these individual test results.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Observation?patient=[reference]&category=http://terminology.hl7.org/CodeSystem/observation-category|laboratory
- GET [base]/Observation?patient=[reference]&code=[system]][value]
- GET [base]/Observation?patient=[reference]&category=http://terminology.hl7.org/CodeSystem/observation-category|laboratory&date={gt|lt|ge|le}[date]
- GET [base]/Observation[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Laboratory Result Observation Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

base]/Observation?patient=[reference]&category=http://terminology.hl7.org/CodeSystem/observation-category|laboratory

```
[base] / Observation ? patient = [reference] & category = http : //terminology.hl7.org/CodeSystem
/observation-category|laboratory

GET  /Observation?patient=07710040201&category=http://terminology.hl7.org/CodeSystem/observation-
category|laboratory

{
  "resourceType": "Bundle",
  "id": "a65951c3-b052-479f-adae-9f8beff11dc0",
  "meta": {
    "lastUpdated": "2021-01-25T00:33:52.637+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Observation?category=http%3A%2F%2Fterminology.hl7.org%
2FCodeSystem%2Fobservation-category%7Claboratory&patient=07710040201"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Observation/98765",
    "resource": {
      "resourceType": "Observation",
      "id": "98765",
      "meta": {
        "profile": ["http://tzf.com/fhir/StructureDefinition/Observation"]
      },
      "text": {
        "status": "generated",
```

```

        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: bmi</p><p><b>meta</b>: </p><p><b>status</b>: final</p><p><b>category</b>:
Vital Signs <span>(Details : {http://hl7.org/fhir/observation-category code 'vital-signs' = 'Vital Signs',
given as 'Vital Signs'})</span></p><p><b>code</b>: BMI <span>(Details : {LOINC code '39156-5' = 'Body mass
index (BMI) [Ratio]', given as 'Body mass index (BMI) [Ratio]})</span></p><p><b>subject</b>: <a>Patient
/example</a></p><p><b>effective</b>: Jul 2, 1999</p><p><b>value</b>: 16.2 kg/m2<span> (Details: UCUM code kg
/m2 = 'kg/m2')</span></p></div>"
    },
    "status": "final",
    "category": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "code": "laboratory",
        "display": "laboratory"
      }
    ],
    "text": "Vital Signs"
  }
],
  "code": {
    "coding": [{
      "system": "http://loinc.org",
      "code": "2339-0",
      "display": "Body mass index (BMI) [Ratio]"
    }
  ],
  "text": "BMI"
},
"subject": {
  "reference": "Patient/07710040201"
},
"effectiveDateTime": "1999-07-02",
"valueQuantity": {
  "value": 16.2,
  "unit": "kg/m2",
  "system": "http://unitsofmeasure.org",
  "code": "kg/m2"
}
}
}
]
}

```

[base]/Observation?patient=[reference]&code=[system]|[value]

```

[base] / Observation ? patient = [reference] & code = [system] | [value]

GET    /Observation?patient=07710040201&code=http://loinc.org|2339-0

{
  "resourceType": "Bundle",
  "id": "a65951c3-b052-479f-adae-9f8beff11dc0",
  "meta": {
    "lastUpdated": "2021-01-25T00:33:52.637+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Observation?category=http%3A%2F%2Fterminology.hl7.org%
2FCodeSystem%2Fobservation-category%7Claboratory&patient=07710040201"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Observation/98765",
    "resource": {
      "resourceType": "Observation",

```

```

    "id": "98765",
    "meta": {
      "profile": ["http://tzf.com/fhir/StructureDefinition/Observation"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: bmi</p><p><b>meta</b>: </p><p><b>status</b>: final</p><p><b>category</b>:
Vital Signs <span>(Details : {http://hl7.org/fhir/observation-category code 'vital-signs' = 'Vital Signs',
given as 'Vital Signs'})</span></p><p><b>code</b>: BMI <span>(Details : {LOINC code '39156-5' = 'Body mass
index (BMI) [Ratio]', given as 'Body mass index (BMI) [Ratio]'}</span></p><p><b>subject</b>: <a>Patient
/example</a></p><p><b>effective</b>: Jul 2, 1999</p><p><b>value</b>: 16.2 kg/m2<span> (Details: UCUM code kg
/m2 = 'kg/m2')</span></p></div>"
    },
    "status": "final",
    "category": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "code": "laboratory",
        "display": "laboratory"
      }
    ],
    "text": "Vital Signs"
  }
],
"code": {
  "coding": [{
    "system": "http://loinc.org",
    "code": "2339-0",
    "display": "Body mass index (BMI) [Ratio]"
  }
],
  "text": "BMI"
},
"subject": {
  "reference": "Patient/07710040201"
},
"effectiveDateTime": "1999-07-02",
"valueQuantity": {
  "value": 16.2,
  "unit": "kg/m2",
  "system": "http://unitsofmeasure.org",
  "code": "kg/m2"
}
}
}
]
}

```

[base]/Observation?patient=[reference]&category=http://terminology.hl7.org/CodeSystem/observation-category|laboratory&date={gt|lt|ge|le}[date]

```

[base] / Observation ? patient = [reference] & category = http : //terminology.hl7.org/CodeSystem
/observation-category|laboratory&date={gt|lt|ge|le}[date]

GET    /Observation?patient=07710040201&category=http://terminology.hl7.org/CodeSystem/observation-
category|laboratory&date=ge1999-07-01

{
  "resourceType": "Bundle",
  "id": "a65951c3-b052-479f-adae-9f8beff11dc0",
  "meta": {
    "lastUpdated": "2021-01-25T00:33:52.637+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{

```

```

    "relation": "self",
    "url": "https://<datahub_server>/Observation?category=http%3A%2F%2Fterminology.hl7.org%
2FCodeSystem%2Fobservation-category%7Claboratory&patient=07710040201"
  }
],
"entry": [{
  "fullUrl": "https://<datahub_server>/Observation/98765",
  "resource": {
    "resourceType": "Observation",
    "id": "98765",
    "meta": {
      "profile": ["http://tzf.com/fhir/StructureDefinition/Observation"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: bmi</p><p><b>meta</b>: </p><p><b>status</b>: final</p><p><b>category</b>:
Vital Signs <span>(Details : {http://hl7.org/fhir/observation-category code 'vital-signs' = 'Vital Signs',
given as 'Vital Signs'})</span></p><p><b>code</b>: BMI <span>(Details : {LOINC code '39156-5' = 'Body mass
index (BMI) [Ratio]', given as 'Body mass index (BMI) [Ratio]'})</span></p><p><b>subject</b>: <a>Patient
/example</a></p><p><b>effective</b>: Jul 2, 1999</p><p><b>value</b>: 16.2 kg/m2<span> (Details: UCUM code kg
/m2 = 'kg/m2')</span></p></div>"
    },
    "status": "final",
    "category": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "code": "laboratory",
        "display": "laboratory"
      }
    ],
    "text": "Vital Signs"
  }
],
  "code": {
    "coding": [{
      "system": "http://loinc.org",
      "code": "2339-0",
      "display": "Body mass index (BMI) [Ratio]"
    }
  ],
  "text": "BMI"
},
  "subject": {
    "reference": "Patient/07710040201"
  },
  "effectiveDateTime": "1999-07-02",
  "valueQuantity": {
    "value": 16.2,
    "unit": "kg/m2",
    "system": "http://unitsofmeasure.org",
    "code": "kg/m2"
  }
}
]
}

```

### [base]/Observation[/id]

```

[base]/Observation[/id]

GET /Observation/ObservationResource1

{
  "resourceType" : "Observation",
  "id" : "ObservationResource1",

```



```

"meta" : {
  "versionId" : "1626754457332",
  "lastUpdated" : "2021-07-21T05:46:18.4431007-06:00",
  "source" : "AO",
  "profile" : [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-observation-lab"
  ],
  "tag" : [
    {
      "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
      "code" : "user-request-id",
      "display" : "196aec40-cf9a-4940-a46d-468a2562566d[1]"
    },
    {
      "code" : "SecurityLabelStamped"
    }
  ]
},
"status" : "final",
"category" : [
  {
    "coding" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/observation-category",
        "code" : "laboratory",
        "display" : "Laboratory"
      }
    ]
  }
],
"code" : {
  "coding" : [
    {
      "system" : "http://loinc.org",
      "code" : "10839-1",
      "display" : "Troponin I.cardiac"
    }
  ]
},
"subject" : {
  "reference" : "Patient/08b21d30-031d-59de-87c9-bcf56476ba9a",
  "type" : "Patient"
},
"effectiveDateTime" : "2019-07-18T00:00:00-06:00",
"valueQuantity" : {
  "value" : 47,
  "unit" : "mg/dL",
  "system" : "http://unitsofmeasure.org",
  "code" : "LDLC"
},
"device" : {
  "reference" : "*"
},
"component" : [
  {
    "code" : {
      "coding" : [
        {
          "system" : "http://loinc.org",
          "code" : "10839-1",
          "display" : "Troponin I.cardiac"
        }
      ]
    },
    "valueQuantity" : {
      "value" : 47,
      "unit" : "mg/dL",
      "system" : "http://unitsofmeasure.org",
      "code" : "LDLC"
    }
  }
]
}

```

```
}  
}
```

---

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# Observation - Pediatric BMI for Age Observation

---

## Use Case

A member accesses a mobile application to see how their baby is growing by looking at their body mass index and comparing it against the averages for their age. The application UI calls an external endpoint which returns the information in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs]
- GET [base]/Observation?patient=[reference]&code=[system]][value]
- GET [base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs&date={gt|lt|ge|le}]
- GET [base]/Observation[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Pediatric BMI for Age Observation Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs

```
[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-
category|vital-signs

GET /Observation?patient=1061418&category=http://terminology.hl7.org/CodeSystem/observation-
category|vital-signs

{
  "resourceType": "Bundle",
  "id": "be0b91e3-8e83-4623-ab7a-dd151a5bc726",
  "meta": {
    "lastUpdated": "2021-01-26T21:39:44.318+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Observation?category=http%3A%2F%2Fterminology.hl7.org%
2FCodeSystem%2Fobservation-category%7Cvital-signs&patient=1061418"
    },
    {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=3a28e947-dcb3-57d7-9672-
dd742d762cc3&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Observation/0183ffb9-4a86-4840-81c2-51424b3420ac",
      "resource": {
```

```

"resourceType": "Observation",
"id": "0183ffb9-4a86-4840-81c2-51424b3420ac",
"meta": {
  "versionId": "1626754457332",
  "lastUpdated": "2020-09-01T08:47:43.984+00:00",
  "profile": [
    "http://tzf.com/fhir/StructureDefinition/Observation"
  ],
  "tag": [
    {
      "system": "tranzform-apim-request-ns",
      "code": "user-request-id",
      "display": "4be85f75-8b08-4e24-aa6a-0be2bc4e612b\t\t\t1"
    }
  ]
},
"identifier": [
  {
    "system": "http://terminology.hl7.org/CodeSystem/observation-category",
    "value": "59576-9"
  },
  {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "0183ffb9-4a86-4840-81c2-51424b3420ac"
  }
],
"status": "registered",
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "code": "vital-signs",
        "display": "Vital Signs"
      }
    ]
  }
],
"code": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/observation-category",
      "code": "59576-9",
      "display": "Body mass index (BMI) [Percentile] Per age and gender"
    }
  ],
  "text": "Pediatric bmi for age"
},
"subject": {
  "reference": "Patient/1061418"
},
"effectiveDateTime": "2013-03-11T10:28:00+01:00",
"valueQuantity": {
  "value": 65,
  "unit": "%",
  "system": "http://unitsofmeasure.org",
  "code": "%"
},
"referenceRange": [
  {
    "text": "normal"
  }
]
},
{
  "fullUrl": "https://<datahub_server>/Observation/781daefb-ec7a-4624-b92a-cc047928ca21",
  "resource": {
    "resourceType": "Observation",
    "id": "781daefb-ec7a-4624-b92a-cc047928ca21",

```

```

"meta": {
  "versionId": "1626754457332",
  "lastUpdated": "2020-09-01T08:47:43.999+00:00",
  "profile": [
    "http://tzf.com/fhir/StructureDefinition/Observation"
  ],
  "tag": [
    {
      "system": "tranzform-apim-request-ns",
      "code": "user-request-id",
      "display": "3453c3e6-a839-4b10-aa19-bbf72cbfd6ff\t\t\t1"
    }
  ]
},
"identifier": [
  {
    "system": "http://terminology.hl7.org/CodeSystem/observation-category",
    "value": "59576-9"
  },
  {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "781daefb-ec7a-4624-b92a-cc047928ca21"
  }
],
"status": "registered",
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "code": "vital-signs",
        "display": "Vital Signs"
      }
    ]
  }
],
"code": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/observation-category",
      "code": "59576-9",
      "display": "Body mass index (BMI) [Percentile] Per age and gender"
    }
  ],
  "text": "Pediatric bmi for age"
},
"subject": {
  "reference": "Patient/1061418"
},
"effectiveDateTime": "2013-03-11T10:28:00+01:00",
"valueQuantity": {
  "value": 65,
  "unit": "%",
  "system": "http://unitsofmeasure.org",
  "code": "%"
},
"referenceRange": [
  {
    "text": "normal"
  }
]
},
{
  "fullUrl": "https://<datahub_server>/Observation/d6131b11-1506-43f2-8579-b3ef76f2a266",
  "resource": {
    "resourceType": "Observation",
    "id": "d6131b11-1506-43f2-8579-b3ef76f2a266",
    "meta": {
      "versionId": "1626754457332",

```

```

    "lastUpdated": "2020-09-02T00:14:41.672+00:00",
    "profile": [
      "http://tzf.com/fhir/StructureDefinition/Observation"
    ],
    "tag": [
      {
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "67717d50-e6c0-46cf-922f-8e6541f8d076\t\t\t1"
      }
    ],
    "identifier": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "value": "59576-1"
      },
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "d6131b11-1506-43f2-8579-b3ef76f2a266"
      }
    ],
    "status": "registered",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/observation-category",
          "code": "59576-1",
          "display": "Body mass index (BMI) [Percentile] Per age and gender"
        }
      ],
      "text": "Pediatric bmi for age"
    },
    "subject": {
      "reference": "Patient/1061418"
    },
    "effectiveDateTime": "2013-03-11T10:28:00+01:00",
    "valueQuantity": {
      "value": 65,
      "unit": "%",
      "system": "http://unitsofmeasure.org",
      "code": "%"
    },
    "referenceRange": [
      {
        "text": "normal"
      }
    ]
  }
}

```

[base]/Observation?patient=[reference]&code=[system][value]

[base]/Observation?patient=[reference]&code=[system][value]

```

GET /Observation?patient=1061418&code=http://terminology.hl7.org/CodeSystem/observation-category|59576-1

{
  "resourceType": "Bundle",
  "id": "8a25c7b5-f25b-48f0-b9e0-24bfc9380e03",
  "meta": {
    "lastUpdated": "2021-01-26T21:36:34.824+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Observation?code=http%3A%2F%2Fterminology.hl7.org%2FCodeSystem%2Fobservation-category%7C59576-1&patient=1061418"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Observation/d6131b11-1506-43f2-8579-b3ef76f2a266",
      "resource": {
        "resourceType": "Observation",
        "id": "d6131b11-1506-43f2-8579-b3ef76f2a266",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-09-02T00:14:41.672+00:00",
          "profile": [
            "http://tzf.com/fhir/StructureDefinition/Observation"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "67717d50-e6c0-46cf-922f-8e6541f8d076\t\t\t1"
            }
          ]
        },
        "identifier": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "value": "59576-1"
          },
          {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "d6131b11-1506-43f2-8579-b3ef76f2a266"
          }
        ],
        "status": "registered",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "Vital Signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/observation-category",
              "code": "59576-1",
              "display": "Body mass index (BMI) [Percentile] Per age and gender"
            }
          ],
          "text": "Pediatric bmi for age"
        }
      }
    }
  ]
}

```





```

    ]
  },
  "identifier": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/observation-category",
      "value": "59576-9"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "0183ffb9-4a86-4840-81c2-51424b3420ac"
    }
  ],
  "status": "registered",
  "category": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/observation-category",
          "code": "vital-signs",
          "display": "Vital Signs"
        }
      ]
    }
  ],
  "code": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "code": "59576-9",
        "display": "Body mass index (BMI) [Percentile] Per age and gender"
      }
    ],
    "text": "Pediatric bmi for age"
  },
  "subject": {
    "reference": "Patient/1061418"
  },
  "effectiveDateTime": "2013-03-11T10:28:00+01:00",
  "valueQuantity": {
    "value": 65,
    "unit": "%",
    "system": "http://unitsofmeasure.org",
    "code": "%"
  },
  "referenceRange": [
    {
      "text": "normal"
    }
  ]
},
{
  "fullUrl": "https://<datahub_server>/Observation/781daefb-ec7a-4624-b92a-cc047928ca21",
  "resource": {
    "resourceType": "Observation",
    "id": "781daefb-ec7a-4624-b92a-cc047928ca21",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-09-01T08:47:43.999+00:00",
      "profile": [
        "http://tzf.com/fhir/StructureDefinition/Observation"
      ]
    },
    "tag": [
      {
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "3453c3e6-a839-4b10-aa19-bbf72cbfd6ff\t\t\t1"
      }
    ]
  }
},

```

```

      "identifier": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/observation-category",
          "value": "59576-9"
        },
        {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "781daefb-ec7a-4624-b92a-cc047928ca21"
        }
      ],
      "status": "registered",
      "category": [
        {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/observation-category",
              "code": "vital-signs",
              "display": "Vital Signs"
            }
          ]
        }
      ],
      "code": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "59576-9",
            "display": "Body mass index (BMI) [Percentile] Per age and gender"
          }
        ],
        "text": "Pediatric bmi for age"
      },
      "subject": {
        "reference": "Patient/1061418"
      },
      "effectiveDateTime": "2013-03-11T10:28:00+01:00",
      "valueQuantity": {
        "value": 65,
        "unit": "%",
        "system": "http://unitsofmeasure.org",
        "code": "%"
      },
      "referenceRange": [
        {
          "text": "normal"
        }
      ]
    },
    {
      "fullUrl": "https://<datahub_server>/Observation/d6131b11-1506-43f2-8579-b3ef76f2a266",
      "resource": {
        "resourceType": "Observation",
        "id": "d6131b11-1506-43f2-8579-b3ef76f2a266",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-09-02T00:14:41.672+00:00",
          "profile": [
            "http://tzf.com/fhir/StructureDefinition/Observation"
          ]
        },
        "tag": [
          {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "67717d50-e6c0-46cf-922f-8e6541f8d076\t\t\t1"
          }
        ]
      },
      "identifier": [
        {

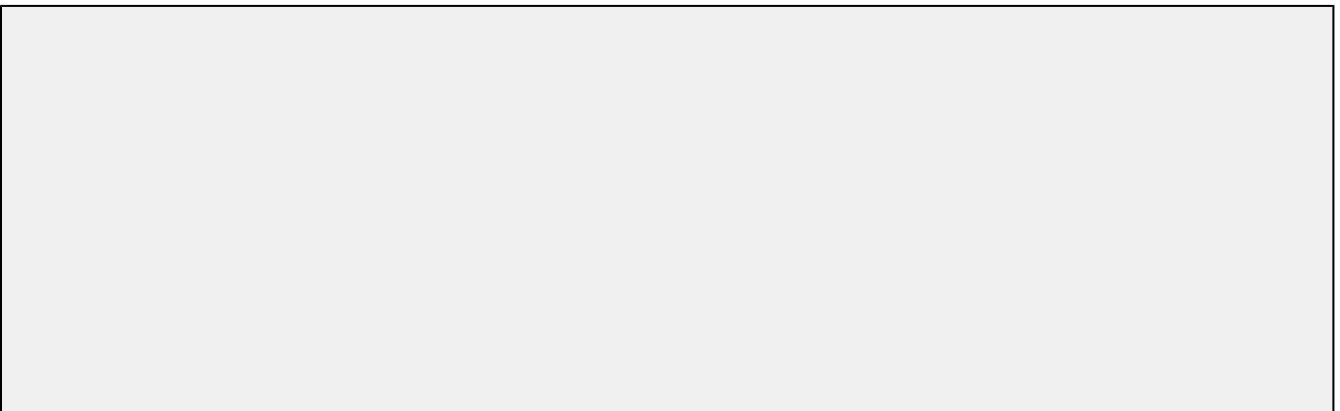
```

```

        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "value": "59576-1"
      },
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "d6131b11-1506-43f2-8579-b3ef76f2a266"
      }
    ],
    "status": "registered",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/observation-category",
          "code": "59576-1",
          "display": "Body mass index (BMI) [Percentile] Per age and gender"
        }
      ],
      "text": "Pediatric bmi for age"
    },
    "subject": {
      "reference": "Patient/1061418"
    },
    "effectiveDateTime": "2013-03-11T10:28:00+01:00",
    "valueQuantity": {
      "value": 65,
      "unit": "%",
      "system": "http://unitsofmeasure.org",
      "code": "%"
    },
    "referenceRange": [
      {
        "text": "normal"
      }
    ]
  }
}

```

[base]/Observation[id]



```

[base]/Observation[/id]

GET /Observation/pediatric-bmi-example

{
  "resourceType" : "Observation",
  "id" : "pediatric-bmi-example",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-08-03T18:44:59.431+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/pediatric-bmi-for-age"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "2ebb0d64-548b-4d31-bfa3-535e4f570861[1]"
      },
      {
        "code" : "SecurityLabelStamped"
      }
    ]
  },
  "status" : "final",
  "category" : [
    {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/observation-category",
          "code" : "vital-signs",
          "display" : "Vital Signs"
        }
      ],
      "text" : "Vital Signs"
    }
  ],
  "code" : {
    "coding" : [
      {
        "system" : "http://loinc.org",
        "code" : "59576-9",
        "display" : "Body mass index (BMI) [Percentile] Per age and sex"
      }
    ],
    "text" : "BMI"
  },
  "subject" : {
    "reference" : "Patient/08b21d30-031d-59de-87c9-bcf56476ba9a",
    "type" : "Patient",
    "display" : "Child Example"
  },
  "encounter" : {
    "display" : "GP Visit"
  },
  "effectiveDateTime" : "2019-05-04T12:12:29-07:00",
  "valueQuantity" : {
    "value" : 65,
    "unit" : "%",
    "system" : "http://unitsofmeasure.org",
    "code" : "%"
  },
  "note" : [
    {
      "text" : "CDC Males, 2-20 years Chart"
    }
  ]
}

```

---

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# Observation - Pediatric Weight for Height Observation

---

## Use Case

A member accesses a mobile application to see how their baby is growing by looking at their weight and comparing it against the averages for their height and age. The application UI calls an external endpoint which returns the information in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs]
- GET [base]/Observation?patient=[reference]&code=[system]][value]
- GET [base]/DiagnosticReport?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs&date={gt|lt|ge|le}]
- GET [base]/Observation[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Pediatric Weight for Height Observation Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs

```
[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-
category|vital-signs
```

```
GET /Observation?patient=pat1&category=http://terminology.hl7.org/CodeSystem/observation-category|vital-
signs
```

```
{
  "resourceType": "Bundle",
  "id": "0763c507-3c60-4f9f-bf95-9b626a5afbe9",
  "meta": {
    "lastUpdated": "2021-01-26T21:49:16.474+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Observation?category=http%3A%2F%2Fterminology.hl7.org%
2FCodeSystem%2Fobservation-category%7Cvital-signs&patient=pat1"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Observation/4e425466-5d90-a9a3-8caa-53216d5430b7",
      "resource": {
        "resourceType": "Observation",
        "id": "4e425466-5d90-a9a3-8caa-53216d5430b7",
        "meta": {
          "versionId": "1626754457332",
```



```

        "lastUpdated": "2020-12-24T06:00:47.360+00:00",
        "profile": [
          "http://tzf.com/fhir/StructureDefinition/Observation"
        ]
      },
      "identifier": [
        {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "4e425466-5d90-a9a3-8caa-53216d5430b7"
        }
      ],
      "status": "final",
      "category": [
        {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/observation-category",
              "code": "vital-signs",
              "display": "vital-signs"
            }
          ]
        }
      ],
      "code": {
        "coding": [
          {
            "system": "http://loinc.org",
            "code": "77606-2",
            "display": "Weight-for-length Per age and sex"
          }
        ],
        "text": "Weight-for-length Per age and sex"
      },
      "subject": {
        "reference": "Patient/pat1"
      },
      "encounter": {
        "reference": "Encounter/65abf8dc-d463-e590-71e7-dea000842f94"
      },
      "effectiveDateTime": "1940-09-05T19:33:18-04:00",
      "issued": "1940-09-05T19:33:18.715-04:00",
      "valueQuantity": {
        "value": 7.5192,
        "unit": "%",
        "system": "http://unitsofmeasure.org",
        "code": "%"
      }
    }
  ]
}

```

[base]/Observation?patient=[reference]&code=[system]|[value]

```

[base]/Observation?patient=[reference]&code=[system]|[value]
GET /Observation?patient=1061418&code=http://loinc.org|77606-2
{
  "resourceType": "Bundle",
  "id": "0763c507-3c60-4f9f-bf95-9b626a5afbe9",
  "meta": {
    "lastUpdated": "2021-01-26T21:49:16.474+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [

```

```

    {
      "relation": "self",
      "url": "https://<datahub_server>/Observation?category=http%3A%2F%2Fterminology.hl7.org%
2FCodeSystem%2Fobservation-category%7Cvital-signs&patient=pat1"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Observation/4e425466-5d90-a9a3-8caa-53216d5430b7",
      "resource": {
        "resourceType": "Observation",
        "id": "4e425466-5d90-a9a3-8caa-53216d5430b7",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-12-24T06:00:47.360+00:00",
          "profile": [
            "http://tzf.com/fhir/StructureDefinition/Observation"
          ]
        },
        "identifier": [
          {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "4e425466-5d90-a9a3-8caa-53216d5430b7"
          }
        ],
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "vital-signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "77606-2",
              "display": "Weight-for-length Per age and sex"
            }
          ],
          "text": "Weight-for-length Per age and sex"
        },
        "subject": {
          "reference": "Patient/pat1"
        },
        "encounter": {
          "reference": "Encounter/65abf8dc-d463-e590-71e7-dea000842f94"
        },
        "effectiveDateTime": "1940-09-05T19:33:18-04:00",
        "issued": "1940-09-05T19:33:18.715-04:00",
        "valueQuantity": {
          "value": 7.5192,
          "unit": "%",
          "system": "http://unitsofmeasure.org",
          "code": "%"
        }
      }
    }
  ]
}

```

[base]/DiagnosticReport?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs&date={gt|lt|ge|le}]

```
[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs&date={gt|lt|ge|le}]
```

```
GET /Observation?patient=pat1&category=http://terminology.hl7.org/CodeSystem/observation-category|vital-signs&date=ge1940-09-05
```

```
{
  "resourceType": "Bundle",
  "id": "0763c507-3c60-4f9f-bf95-9b626a5afbe9",
  "meta": {
    "lastUpdated": "2021-01-26T21:49:16.474+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Observation?category=http%3A%2F%2Fterminology.hl7.org%2FCodeSystem%2Fobservation-category%7Cvital-signs&patient=pat1"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Observation/4e425466-5d90-a9a3-8caa-53216d5430b7",
      "resource": {
        "resourceType": "Observation",
        "id": "4e425466-5d90-a9a3-8caa-53216d5430b7",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-12-24T06:00:47.360+00:00",
          "profile": [
            "http://tzf.com/fhir/StructureDefinition/Observation"
          ]
        },
        "identifier": [
          {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "4e425466-5d90-a9a3-8caa-53216d5430b7"
          }
        ],
        "status": "final",
        "category": [
          {
            "coding": [
              {
                "system": "http://terminology.hl7.org/CodeSystem/observation-category",
                "code": "vital-signs",
                "display": "vital-signs"
              }
            ]
          }
        ],
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "77606-2",
              "display": "Weight-for-length Per age and sex"
            }
          ],
          "text": "Weight-for-length Per age and sex"
        },
        "subject": {
          "reference": "Patient/pat1"
        }
      }
    }
  ]
}
```

```

        "encounter": {
          "reference": "Encounter/65abf8dc-d463-e590-71e7-dea000842f94"
        },
        "effectiveDateTime": "1940-09-05T19:33:18-04:00",
        "issued": "1940-09-05T19:33:18.715-04:00",
        "valueQuantity": {
          "value": 7.5192,
          "unit": "%",
          "system": "http://unitsofmeasure.org",
          "code": "%"
        }
      }
    ]
  }
}

```

### [base]/Observation[id]

```
[base]/Observation[/id]
```

```
GET /Observation/P8756N234529463-7
```

```

{
  "resourceType": "Observation",
  "id": "P8756N234529463-7",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2021-05-20T13:39:32.300+00:00",
    "source": "NYP",
    "profile": [
      "http://hl7.org/fhir/us/core/StructureDefinition/pediatric-weight-for-height"
    ],
    "tag": [
      {
        "code": "SecurityLabelStamped"
      }
    ]
  },
  "identifier": [
    {
      "system": "NYP:tenant4",
      "value": "P8756N234529463-7"
    }
  ],
  "status": "final",
  "category": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/observation-category",
          "code": "vital-signs",
          "display": "Vital Signs"
        }
      ]
    }
  ],
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "29463-7",
        "display": "Body Weight"
      }
    ]
  },
  "subject": {
    "reference": "Patient/0b2c6b90-f4d8-5aa8-81c6-1dbb46dc585a",

```

```
    "type" : "Patient"
  },
  "encounter" : {
    "reference" : "Encounter/ENV51234"
  },
  "effectiveDateTime" : "2010-05-11T22:06:25",
  "valueQuantity" : {
    "value" : 85,
    "unit" : "kg kilogram",
    "system" : "http://unitsofmeasure.org",
    "code" : "kg"
  },
  "interpretation" : [
    {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/v3-ObservationInterpretation",
          "code" : "N",
          "display" : "Normal"
        }
      ]
    }
  ]
}
```

---

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# Observation - Pulse Oximetry

---

## Use Case

A member has their blood oxygen saturation levels regularly monitored by a provider using a pulse oximetry device. The member uses an application to retrieve information on their pulse oximetry readings. The application UI calls an external endpoint which returns the pulse oximetry information associated with the member in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs]
- GET [base]/Observation?patient=[reference]&code=[system]][value]
- GET [base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs]&date={gt|lt|ge|le}
- GET [base]/Observation[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Pulse Oximetry Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs]

```
[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-
category|vital-signs]

GET /Observation?patient=07710040201&category=http://terminology.hl7.org/CodeSystem/observation-
category|vital-signs

{
  "resourceType": "Bundle",
  "id": "b5c7f344-2dbe-4989-a6aa-2e337a0ec9fb",
  "meta": {
    "lastUpdated": "2021-01-26T21:10:43.765+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Observation?category=http%3A%2F%2Fterminology.hl7.org%
2FCodeSystem%2Fobservation-category%7Cvital-signs&patient=07710040201"
    },
    {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=240a098e-4d32-59fd-8db2-
3425c1ae6cae&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Observation/0306b621-2177-43ef-842e-236c563ed096",
      "resource": {
        "resourceType": "Observation",
```

```

    "id": "0306b621-2177-43ef-842e-236c563ed096",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-09-01T06:50:46.553+00:00",
      "profile": [
        "http://tzf.com/fhir/StructureDefinition/Observation"
      ],
      "tag": [
        {
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "562d43d6-bbf0-4466-9517-f6c0ef2a8aa5\t\t\t1"
        }
      ]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: satO2-fiO2</p><p><b>identifier</b>: o1223435-10</p><p><b>status</b>: final<
/p><p><b>category</b>: Vital Signs <span style=\"background: LightGoldenRodYellow\">(Details :
{http://terminology.hl7.org/CodeSystem/observation-category code 'vital-signs' = 'Vital Signs', given as
'Vital Signs'})</span></p><p><b>code</b>: Oxygen saturation in Arterial blood <span style=\"background:
LightGoldenRodYellow\">(Details : {LOINC code '2708-6' = 'Oxygen saturation in Arterial blood', given as
'Oxygen saturation in Arterial blood'}; {LOINC code '59408-5' = 'Oxygen saturation in Arterial blood by
Pulse oximetry', given as 'Oxygen saturation in Arterial blood by Pulse oximetry'}; {urn:iso:std:iso:11073:
10101 code '150456' = '150456', given as 'MDC_PULS_OXIM_SAT_O2'})</span></p><p><b>subject</b>: <a href=\"
Patient-example.html\">Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy
V. Shaw ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 2007-02-20</a><
/p><p><b>effective</b>: 05/12/2014 7:30:10 PM</p><p><b>value</b>: 95 %<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code % = '%')</span></p><p><b>interpretation</b>: Normal (applies to
non-numeric results) <span style=\"background: LightGoldenRodYellow\">(Details : {http://terminology.hl7.org
/CodeSystem/v3-ObservationInterpretation code 'N' = 'Normal', given as 'Normal'})</span></p><p><b>device<
/b>: Acme Pulse Oximeter 2000</p><h3>ReferenceRanges</h3><table class=\"grid\"><tr><td>-</td><td><b>Low</b></td><td><b>High</b></td></tr><tr><td>*</td><td>90 %<span style=\"background: LightGoldenRodYellow\">
(Details: UCUM code % = '%')</span></td><td>99 %<span style=\"background: LightGoldenRodYellow\"> (Details:
UCUM code % = '%')</span></td></tr></table><h3>Components</h3><table class=\"grid\"><tr><td>-<
td><td><b>Code</b></td><td><b>Value[x]</b></td></tr><tr><td>*</td><td>Inhaled oxygen flow rate <span
style=\"background: LightGoldenRodYellow\">(Details : {LOINC code '3151-8' = 'Inhaled oxygen flow rate',
given as 'Inhaled oxygen flow rate'})</span></td><td>6 liters/min<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code l/min = 'l/min')</span></td></tr></table></div>"
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    "status": "final",
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            "display": "Vital Signs"
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        "text": "Vital Signs"
      }
    ],
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          "code": "2708-6",
          "display": "Oxygen saturation in Arterial blood"
        }
      ]
    }
  }

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        },
        {
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          "code": "59408-5",
          "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
        },
        {
          "system": "urn:iso:std:iso:11073:10101",
          "code": "150456",
          "display": "MDC_PULS_OXIM_SAT_O2"
        }
      ]
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ObservationInterpretation",
            "code": "N",
            "display": "Normal"
          }
        ],
        "text": "Normal (applies to non-numeric results)"
      }
    ],
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    },
    "referenceRange": [
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        "low": {
          "value": 90,
          "unit": "%",
          "system": "http://unitsofmeasure.org",
          "code": "%"
        },
        "high": {
          "value": 99,
          "unit": "%",
          "system": "http://unitsofmeasure.org",
          "code": "%"
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      }
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              "code": "3151-8",
              "display": "Inhaled oxygen flow rate"
            }
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          "text": "Inhaled oxygen flow rate"
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          "unit": "liters/min",
          "system": "http://unitsofmeasure.org",

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        "code": "l/min"
      }
    }
  ],
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        "lastUpdated": "2020-09-01T06:50:46.569+00:00",
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        "tag": [
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            "code": "user-request-id",
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        ]
      },
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/p><p><b>category</b>: Vital Signs <span style=\\"background: LightGoldenRodYellow\">(Details :
{http://terminology.hl7.org/CodeSystem/observation-category code 'vital-signs' = 'Vital Signs', given as
'Vital Signs'})</span></p><p><b>code</b>: Oxygen saturation in Arterial blood <span style=\\"background:
LightGoldenRodYellow\">(Details : {LOINC code '2708-6' = 'Oxygen saturation in Arterial blood', given as
'Oxygen saturation in Arterial blood'}; {LOINC code '59408-5' = 'Oxygen saturation in Arterial blood by
Pulse oximetry', given as 'Oxygen saturation in Arterial blood by Pulse oximetry'}; {urn:iso:std:iso:11073:
10101 code '150456' = '150456', given as 'MDC_PULS_OXIM_SAT_02'})</span></p><p><b>subject</b>: <a href=\\"
Patient-example.html\">Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy
V. Shaw ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 2007-02-20</a><
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non-numeric results) <span style=\\"background: LightGoldenRodYellow\">(Details : {http://terminology.hl7.org
/CodeSystem/v3-ObservationInterpretation code 'N' = 'Normal', given as 'Normal'})</span></p><p><b>device<
/b>: Acme Pulse Oximeter 2000</p><h3>ReferenceRanges</h3><table class=\\"grid\"><tr><td>-</td><td><b>Low</b></td><td><b>High</b></td></tr><tr><td>*</td><td>90 %<span style=\\"background: LightGoldenRodYellow\">
(Details: UCUM code % = '%'</span></td><td>99 %<span style=\\"background: LightGoldenRodYellow\"> (Details:
UCUM code % = '%'</span></td></tr></table><h3>Components</h3><table class=\\"grid\"><tr><td>-<
/td><td><b>Code</b></td><td><b>Value[x]</b></td></tr><tr><td>*</td><td><b>Inhaled oxygen flow rate <span
style=\\"background: LightGoldenRodYellow\">(Details : {LOINC code '3151-8' = 'Inhaled oxygen flow rate',
given as 'Inhaled oxygen flow rate'})</span></td><td>6 liters/min<span style=\\"background:
LightGoldenRodYellow\"> (Details: UCUM code l/min = 'l/min')</span></td></tr></table></div>"
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        {
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              "display": "Vital Signs"
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      ]
    }
  }
}

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            "display": "Oxygen saturation in Arterial blood"
        },
        {
            "system": "http://loinc.org",
            "code": "59408-5",
            "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
        },
        {
            "system": "urn:iso:std:iso:11073:10101",
            "code": "150456",
            "display": "MDC_PULS_OXIM_SAT_O2"
        }
    ]
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                "system": "http://terminology.hl7.org/CodeSystem/v3-
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                "code": "N",
                "display": "Normal"
            }
        ],
        "text": "Normal (applies to non-numeric results)"
    }
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"device": {
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"referenceRange": [
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        "high": {
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            "system": "http://unitsofmeasure.org",
            "code": "%"
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],

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            "text": "Inhaled oxygen flow rate"
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        }
      ]
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            }
          ]
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          "text": "Body temperature"
        }
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  ],
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        "text": "WHO Males, 0-2 years Chart"
      }
    ]
  }
}
]
}

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[base]/Observation?patient=[reference]&code=[system][value]

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[base]/Observation?patient=[reference]&code=[system][value]
GET /Observation?patient=07710040201&code=http://loinc.org|2708-6

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    }
  ],
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          "lastUpdated": "2020-09-01T06:50:46.553+00:00",
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        "text": {
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Details</b></p><p><b>id</b>: satO2-fiO2</p><p><b>identifier</b>: o1223435-10</p><p><b>status</b>: final<
/p><p><b>category</b>: Vital Signs <span style=\"background: LightGoldenRodYellow\">(Details :
{http://terminology.hl7.org/CodeSystem/observation-category code 'vital-signs' = 'Vital Signs', given as
'Vital Signs'})</span></p><p><b>code</b>: Oxygen saturation in Arterial blood <span style=\"background:
LightGoldenRodYellow\">(Details : {LOINC code '2708-6' = 'Oxygen saturation in Arterial blood', given as
'Oxygen saturation in Arterial blood'}; {LOINC code '59408-5' = 'Oxygen saturation in Arterial blood by
Pulse oximetry', given as 'Oxygen saturation in Arterial blood by Pulse oximetry'}; {urn:iso:std:iso:11073:
10101 code '150456' = '150456', given as 'MDC_PULS_OXIM_SAT_O2'})</span></p><p><b>subject</b>: <a href=\"
Patient-example.html\">Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy
V. Shaw ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 2007-02-20</a><
/p><p><b>effective</b>: 05/12/2014 7:30:10 PM</p><p><b>value</b>: 95 %<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code % = '%')</span></p><p><b>interpretation</b>: Normal (applies to
non-numeric results) <span style=\"background: LightGoldenRodYellow\">(Details : {http://terminology.hl7.org
/CodeSystem/v3-ObservationInterpretation code 'N' = 'Normal', given as 'Normal'})</span></p><p><b>device<
/b>: Acme Pulse Oximeter 2000</p><h3>ReferenceRanges</h3><table class=\"grid\"><tr><td>-</td><td><b>Low</b><b><
/td><td><b>High</b></td></tr><tr><td>*</td><td>90 %<span style=\"background: LightGoldenRodYellow\">
(Details: UCUM code % = '%')</span></td><td>99 %<span style=\"background: LightGoldenRodYellow\"> (Details:
UCUM code % = '%')</span></td></tr></table><h3>Components</h3><table class=\"grid\"><tr><td>-<
/td><td><b>Code</b></td><td><b>Value[x]</b></td></tr><tr><td>*</td><td><b>Inhaled oxygen flow rate <span
style=\"background: LightGoldenRodYellow\">(Details : {LOINC code '3151-8' = 'Inhaled oxygen flow rate',
given as 'Inhaled oxygen flow rate'})</span></td><td>6 liters/min<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code l/min = 'l/min')</span></td></tr></table></div>
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      },
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      }
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            "display": "Vital Signs"
          }
        ],
        "text": "Vital Signs"
      }
    ],
    "code": {
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          "system": "http://loinc.org",
          "code": "2708-6",
          "display": "Oxygen saturation in Arterial blood"
        },
        {
          "system": "http://loinc.org",
          "code": "59408-5",
          "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
        },
        {
          "system": "urn:iso:std:iso:11073:10101",
          "code": "150456",
          "display": "MDC_PULS_OXIM_SAT_O2"
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    },
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            {
              "system": "http://terminology.hl7.org/CodeSystem/v3-
ObservationInterpretation",
              "code": "N",
              "display": "Normal"
            }
          ],
          "text": "Normal (applies to non-numeric results)"
        }
      ],
      "device": {
        "display": "Acme Pulse Oximeter 2000"
      },
      "referenceRange": [
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          "low": {
            "value": 90,
            "unit": "%",
            "system": "http://unitsofmeasure.org",
            "code": "%"
          },
          "high": {
            "value": 99,
            "unit": "%",
            "system": "http://unitsofmeasure.org",
            "code": "%"
          }
        }
      ],
      "component": [
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          "code": {
            "coding": [
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                "system": "http://loinc.org",
                "code": "3151-8",
                "display": "Inhaled oxygen flow rate"
              }
            ],
            "text": "Inhaled oxygen flow rate"
          },
          "valueQuantity": {
            "value": 6,
            "unit": "liters/min",
            "system": "http://unitsofmeasure.org",
            "code": "l/min"
          }
        }
      ]
    },
    {
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          ]
        }
      }
    }
  ],
  {
    "fullUrl": "https://<datahub_server>/Observation/41fdb9a0-d5ef-49ef-8e8f-f894a353ba95",
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      "meta": {
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          "http://tzf.com/fhir/StructureDefinition/Observation"
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  }
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```

```

    "tag": [
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{http://terminology.hl7.org/CodeSystem/observation-category code 'vital-signs' = 'Vital Signs', given as
'Vital Signs'})</span></p><p><b>code</b>: Oxygen saturation in Arterial blood <span style=\"background:
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'Oxygen saturation in Arterial blood'}; {LOINC code '59408-5' = 'Oxygen saturation in Arterial blood by
Pulse oximetry', given as 'Oxygen saturation in Arterial blood by Pulse oximetry'}; {urn:iso:std:iso:11073:
10101 code '150456' = '150456', given as 'MDC_PULS_OXIM_SAT_O2'})</span></p><p><b>subject</b>: <a href=\"
Patient-example.html\">Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy
V. Shaw ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 2007-02-20</a><
/p><p><b>effective</b>: 05/12/2014 7:30:10 PM</p><p><b>value</b>: 95 %<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code % = '%')</span></p><p><b>interpretation</b>: Normal (applies to
non-numeric results) <span style=\"background: LightGoldenRodYellow\">(Details : {http://terminology.hl7.org
/CodeSystem/v3-ObservationInterpretation code 'N' = 'Normal', given as 'Normal'})</span></p><p><b>device<
/b>: Acme Pulse Oximeter 2000</p><h3>ReferenceRanges</h3><table class=\"grid\"><tr><td>-</td><td><b>Low</b></td>
<td><b>High</b></td></tr><tr><td>*</td><td>90 %<span style=\"background: LightGoldenRodYellow\">
(Details: UCUM code % = '%')</span></td><td>99 %<span style=\"background: LightGoldenRodYellow\"> (Details:
UCUM code % = '%')</span></td></tr></table><h3>Components</h3><table class=\"grid\"><tr><td>-<
/td><td><b>Code</b></td><td><b>Value[x]</b></td></tr><tr><td>*</td><td>Inhaled oxygen flow rate <span
style=\"background: LightGoldenRodYellow\">(Details : {LOINC code '3151-8' = 'Inhaled oxygen flow rate',
given as 'Inhaled oxygen flow rate'})</span></td><td>6 liters/min<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code l/min = 'l/min')</span></td></tr></table></div>

```

```

    },
    "identifier": [
      {
        "system": "http://goodcare.org/observation/id",
        "value": "o1223435-10"
      },
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "41fdb9a0-d5ef-49ef-8e8f-f894a353ba95"
      }
    ],
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ],
        "text": "Vital Signs"
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "2708-6",
          "display": "Oxygen saturation in Arterial blood"
        },
        {
          "system": "http://loinc.org",
          "code": "59408-5",
          "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
        }
      ],
    }
  }
}

```



```

        "system": "urn:iso:std:iso:11073:10101",
        "code": "150456",
        "display": "MDC_PULS_OXIM_SAT_O2"
      }
    ],
  },
  "subject": {
    "reference": "Patient/07710040201"
  },
  "effectiveDateTime": "2014-12-05T09:30:10+01:00",
  "performer": [
    {
      "reference": "Organization/53453454",
      "display": "AUMC"
    }
  ],
  "valueQuantity": {
    "value": 95,
    "unit": "%",
    "system": "http://unitsofmeasure.org",
    "code": "%"
  },
  "interpretation": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/v3-
ObservationInterpretation",
          "code": "N",
          "display": "Normal"
        }
      ],
      "text": "Normal (applies to non-numeric results)"
    }
  ],
  "device": {
    "display": "Acme Pulse Oximeter 2000"
  },
  "referenceRange": [
    {
      "low": {
        "value": 90,
        "unit": "%",
        "system": "http://unitsofmeasure.org",
        "code": "%"
      },
      "high": {
        "value": 99,
        "unit": "%",
        "system": "http://unitsofmeasure.org",
        "code": "%"
      }
    }
  ],
  "component": [
    {
      "code": {
        "coding": [
          {
            "system": "http://loinc.org",
            "code": "3151-8",
            "display": "Inhaled oxygen flow rate"
          }
        ],
        "text": "Inhaled oxygen flow rate"
      },
      "valueQuantity": {
        "value": 6,
        "unit": "liters/min",
        "system": "http://unitsofmeasure.org",
        "code": "l/min"
      }
    }
  ]
}

```

```

    }
  }
}

```

[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs&date={gt|lt|ge|le}]

```

[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-
category|vital-signs]&date={gt|lt|ge|le}

```

```

GET /Observation?patient=07710040201&category=http://terminology.hl7.org/CodeSystem/observation-
category|vital-signs&date=ge2014-12-05

```

```

{
  "resourceType": "Bundle",
  "id": "4c2f34d7-d9ca-422f-9def-f869ecabe830",
  "meta": {
    "lastUpdated": "2021-01-26T21:15:47.399+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Observation?category=http%3A%2F%2Fterminology.hl7.org%
2FCodeSystem%2Fobservation-category%7Cvital-signs&date=ge2014-12-05&patient=07710040201"
    },
    {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=6d31ef92-bc6f-51bc-9951-
d64b83386dcf&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Observation/0306b621-2177-43ef-842e-236c563ed096",
      "resource": {
        "resourceType": "Observation",
        "id": "0306b621-2177-43ef-842e-236c563ed096",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-09-01T06:50:46.553+00:00",
          "profile": [
            "http://tzf.com/fhir/StructureDefinition/Observation"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "562d43d6-bbf0-4466-9517-f6c0ef2a8aa5\t\t\t1"
            }
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: sat02-fi02</p><p><b>identifier</b>: o1223435-10</p><p><b>status</b>: final<
/p><p><b>category</b>: Vital Signs <span style=\\"background: LightGoldenRodYellow\">(Details :
{http://terminology.hl7.org/CodeSystem/observation-category code 'vital-signs' = 'Vital Signs', given as
'Vital Signs'})</span></p><p><b>code</b>: Oxygen saturation in Arterial blood <span style=\\"background:
LightGoldenRodYellow\">(Details : {LOINC code '2708-6' = 'Oxygen saturation in Arterial blood', given as
'Oxygen saturation in Arterial blood'}; {LOINC code '59408-5' = 'Oxygen saturation in Arterial blood by
Pulse oximetry', given as 'Oxygen saturation in Arterial blood by Pulse oximetry'}; {urn:iso:std:iso:11073:

```

```

10101 code '150456' = '150456', given as 'MDC_PULS_OXIM_SAT_O2'})</span></p><p><b>subject</b>: <a href=\"
Patient-example.html\">Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy
V. Shaw ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 2007-02-20</a><
/p><p><b>effective</b>: 05/12/2014 7:30:10 PM</p><p><b>value</b>: 95 %<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code % = '%')</span></p><p><b>interpretation</b>: Normal (applies to
non-numeric results) <span style=\"background: LightGoldenRodYellow\">(Details : {http://terminology.hl7.org
/CodeSystem/v3-ObservationInterpretation code 'N' = 'Normal', given as 'Normal'})</span></p><p><b>device<
/b>: Acme Pulse Oximeter 2000</p><h3>ReferenceRanges</h3><table class=\"grid\"><tr><td>-</td><td><b>Low</b><
/td><td><b>High</b></td></tr><tr><td>*</td><td>90 %<span style=\"background: LightGoldenRodYellow\">
(Details: UCUM code % = '%')</span></td><td>99 %<span style=\"background: LightGoldenRodYellow\"> (Details:
UCUM code % = '%')</span></td></tr></table><h3>Components</h3><table class=\"grid\"><tr><td>-<
/td><td><b>Code</b></td><td><b>Value[x]</b></td></tr><tr><td>*</td><td>Inhaled oxygen flow rate <span
style=\"background: LightGoldenRodYellow\">(Details : {LOINC code '3151-8' = 'Inhaled oxygen flow rate',
given as 'Inhaled oxygen flow rate'})</span></td><td>6 liters/min<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code l/min = 'l/min')</span></td></tr></table></div>
    },
    "identifier": [
      {
        "system": "http://goodcare.org/observation/id",
        "value": "o1223435-10"
      },
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "0306b621-2177-43ef-842e-236c563ed096"
      }
    ],
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ],
        "text": "Vital Signs"
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "2708-6",
          "display": "Oxygen saturation in Arterial blood"
        },
        {
          "system": "http://loinc.org",
          "code": "59408-5",
          "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
        },
        {
          "system": "urn:iso:std:iso:11073:10101",
          "code": "150456",
          "display": "MDC_PULS_OXIM_SAT_O2"
        }
      ]
    },
    "subject": {
      "reference": "Patient/07710040201"
    },
    "effectiveDateTime": "2014-12-05T09:30:10+01:00",
    "valueQuantity": {
      "value": 95,
      "unit": "%",
      "system": "http://unitsofmeasure.org",
      "code": "%"
    },
    "interpretation": [
      {

```

```

        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/v3-
ObservationInterpretation",
            "code": "N",
            "display": "Normal"
          }
        ],
        "text": "Normal (applies to non-numeric results)"
      }
    ],
    "device": {
      "display": "Acme Pulse Oximeter 2000"
    },
    "referenceRange": [
      {
        "low": {
          "value": 90,
          "unit": "%",
          "system": "http://unitsofmeasure.org",
          "code": "%"
        },
        "high": {
          "value": 99,
          "unit": "%",
          "system": "http://unitsofmeasure.org",
          "code": "%"
        }
      }
    ],
    "component": [
      {
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "3151-8",
              "display": "Inhaled oxygen flow rate"
            }
          ],
          "text": "Inhaled oxygen flow rate"
        },
        "valueQuantity": {
          "value": 6,
          "unit": "liters/min",
          "system": "http://unitsofmeasure.org",
          "code": "l/min"
        }
      }
    ]
  },
  {
    "fullUrl": "https://<datahub_server>/Observation/41fdb9a0-d5ef-49ef-8e8f-f894a353ba95",
    "resource": {
      "resourceType": "Observation",
      "id": "41fdb9a0-d5ef-49ef-8e8f-f894a353ba95",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-09-01T06:50:46.569+00:00",
        "profile": [
          "http://tzf.com/fhir/StructureDefinition/Observation"
        ],
        "tag": [
          {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "1f9ba91f-f374-4c1a-96a6-df260fae6474\t\t\t1"
          }
        ]
      }
    }
  },

```

```

    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: sat02-fi02</p><p><b>identifier</b>: o1223435-10</p><p><b>status</b>: final<
/p><p><b>category</b>: Vital Signs <span style=\"background: LightGoldenRodYellow\">(Details :
{http://terminology.hl7.org/CodeSystem/observation-category code 'vital-signs' = 'Vital Signs', given as
'Vital Signs'})</span></p><p><b>code</b>: Oxygen saturation in Arterial blood <span style=\"background:
LightGoldenRodYellow\">(Details : {LOINC code '2708-6' = 'Oxygen saturation in Arterial blood', given as
'Oxygen saturation in Arterial blood'}; {LOINC code '59408-5' = 'Oxygen saturation in Arterial blood by
Pulse oximetry', given as 'Oxygen saturation in Arterial blood by Pulse oximetry'}; {urn:iso:std:iso:11073:
10101 code '150456' = '150456', given as 'MDC_PULS_OXIM_SAT_O2'})</span></p><p><b>subject</b>: <a href=\"
Patient-example.html\">Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy
V. Shaw ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 2007-02-20</a><
/p><p><b>effective</b>: 05/12/2014 7:30:10 PM</p><p><b>value</b>: 95 %<span style=\"background:
LightGoldenRodYellow\">(Details: UCUM code % = '%')</span></p><p><b>interpretation</b>: Normal (applies to
non-numeric results) <span style=\"background: LightGoldenRodYellow\">(Details : {http://terminology.hl7.org
/CodeSystem/v3-ObservationInterpretation code 'N' = 'Normal', given as 'Normal'})</span></p><p><b>device<
/b>: Acme Pulse Oximeter 2000</p><h3>ReferenceRanges</h3><table class=\"grid\"><tr><td>-</td><td><b>Low</b><
/td><td><b>High</b></td></tr><tr><td>*</td><td>90 %<span style=\"background: LightGoldenRodYellow\">
(Details: UCUM code % = '%')</span></td><td>99 %<span style=\"background: LightGoldenRodYellow\"> (Details:
UCUM code % = '%')</span></td></tr></table><h3>Components</h3><table class=\"grid\"><tr><td>-<
/td><td><b>Code</b></td><td><b>Value[x]</b></td></tr><tr><td>*</td><td>Inhaled oxygen flow rate <span
style=\"background: LightGoldenRodYellow\">(Details : {LOINC code '3151-8' = 'Inhaled oxygen flow rate',
given as 'Inhaled oxygen flow rate'})</span></td><td>6 liters/min<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code l/min = 'l/min')</span></td></tr></table></div>
    },
    "identifier": [
      {
        "system": "http://goodcare.org/observation/id",
        "value": "o1223435-10"
      },
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "41fdb9a0-d5ef-49ef-8e8f-f894a353ba95"
      }
    ],
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ],
        "text": "Vital Signs"
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "2708-6",
          "display": "Oxygen saturation in Arterial blood"
        },
        {
          "system": "http://loinc.org",
          "code": "59408-5",
          "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
        },
        {
          "system": "urn:iso:std:iso:11073:10101",
          "code": "150456",
          "display": "MDC_PULS_OXIM_SAT_O2"
        }
      ]
    },
    "subject": {
      "reference": "Patient/07710040201"
    }
  }

```

```

    },
    "effectiveDateTime": "2014-12-05T09:30:10+01:00",
    "performer": [
      {
        "reference": "Organization/53453454",
        "display": "AUMC"
      }
    ],
    "valueQuantity": {
      "value": 95,
      "unit": "%",
      "system": "http://unitsofmeasure.org",
      "code": "%"
    },
    "interpretation": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/v3-
ObservationInterpretation",
            "code": "N",
            "display": "Normal"
          }
        ],
        "text": "Normal (applies to non-numeric results)"
      }
    ],
    "device": {
      "display": "Acme Pulse Oximeter 2000"
    },
    "referenceRange": [
      {
        "low": {
          "value": 90,
          "unit": "%",
          "system": "http://unitsofmeasure.org",
          "code": "%"
        },
        "high": {
          "value": 99,
          "unit": "%",
          "system": "http://unitsofmeasure.org",
          "code": "%"
        }
      }
    ],
    "component": [
      {
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "3151-8",
              "display": "Inhaled oxygen flow rate"
            }
          ],
          "text": "Inhaled oxygen flow rate"
        },
        "valueQuantity": {
          "value": 6,
          "unit": "liters/min",
          "system": "http://unitsofmeasure.org",
          "code": "l/min"
        }
      }
    ]
  },
  {
    "fullUrl": "https://<datahub_server>/Observation/bodytempP1",
    "resource": {

```

```

"resourceType": "Observation",
"id": "bodytempP1",
"meta": {
  "versionId": "1626754457332",
  "lastUpdated": "2020-10-21T16:01:43.864+00:00",
  "profile": [
    "http://tzf.com/fhir/StructureDefinition/Observation"
  ],
  "tag": [
    {
      "system": "tranzform-apim-request-ns",
      "code": "user-request-id",
      "display": "13182d5d-a006-46cd-96bc-a749f7d71ff5\t\t\t1"
    }
  ]
},
"identifier": [
  {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "bodytempP1"
  }
],
"status": "final",
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "code": "vital-signs",
        "display": "Vital Signs"
      }
    ],
    "text": "Vital Signs"
  }
],
"code": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "8310-5",
      "display": "Body temperature"
    }
  ],
  "text": "Body temperature"
},
"subject": {
  "reference": "Patient/07710040201",
  "display": "Infant Example"
},
"encounter": {
  "display": "GP Visit"
},
"effectiveDateTime": "2020-07-02",
"valueQuantity": {
  "value": 92.53,
  "unit": "Cel",
  "system": "http://unitsofmeasure.org",
  "code": "Cel"
},
"note": [
  {
    "text": "WHO Males, 0-2 years Chart"
  }
]
}

```

## [base]/Observation[/id]

```
[base]/Observation[/id]
```

```
GET /Observation/oxygen-saturation
```

```
{
  "resourceType" : "Observation",
  "id" : "oxygen-saturation",
  "meta" : {
    "extension" : [
      {
        "url" : "http://hl7.org/fhir/StructureDefinition/instance-name",
        "valueString" : "Oxygen Saturation Example"
      },
      {
        "url" : "http://hl7.org/fhir/StructureDefinition/instance-description",
        "valueMarkdown" : "This is a typical oxygen saturation example for the *US Core Pulse Oximetry Profile* on room air where no oxygen concentration is recorded."
      }
    ],
    "versionId" : "1626754457332",
    "lastUpdated" : "2022-04-11T15:34:09.938+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-pulse-oximetry"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "3e27ade7-eeac-476f-a482-3eda48540907[1]"
      },
      {
        "code" : "SecurityLabelStamped"
      }
    ]
  },
  "status" : "final",
  "category" : [
    {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/observation-category",
          "code" : "vital-signs",
          "display" : "Vital Signs"
        }
      ],
      "text" : "Vital Signs"
    }
  ],
  "code" : {
    "coding" : [
      {
        "system" : "http://loinc.org",
        "code" : "2708-6",
        "display" : "Oxygen saturation in Arterial blood"
      },
      {
        "system" : "http://loinc.org",
        "code" : "59408-5",
        "display" : "Oxygen saturation in Arterial blood by Pulse oximetry"
      }
    ],
    "text" : "oxygen_saturation"
  },
  "subject" : {
    "reference" : "Patient/Ptpts01",
    "type" : "Patient",

```



```
    "display" : "Vara L. PerfTest1"
  },
  "encounter" : {
    "display" : "GP Visit"
  },
  "effectiveDateTime" : "1999-07-02",
  "valueQuantity" : {
    "value" : 99,
    "unit" : "%02",
    "system" : "http://unitsofmeasure.org",
    "code" : "%"
  }
}
```

---

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FHIR® and the FLAME mark are the registered trademarks of HL7 and are used with the permission of HL7. The use of these trademarks do not constitute a product endorsement by HL7.

# Observation - Smoking Status

---

## Use Case

A member uses a mobile application to retrieve information on whether they are currently smoking or have smoked in the past. The application UI calls an external endpoint which returns the smoking status associated with the member in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs]
- GET [base]/Observation?patient=[reference]&code=[system]][value]
- GET [base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs]&date={gt|lt|ge|le}
- GET [base]/Observation[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Smoking Status Observation Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Observation?patient=[reference]&code=[system][value]

```
[base]/Observation?patient=[reference]&code=[system][value]
GET /Observation?patient=07710040201&code=http://loinc.org|72166-2

{
  "resourceType": "Bundle",
  "id": "61268967-9e4e-468b-9928-63d09e608ce1",
  "meta": {
    "lastUpdated": "2021-01-26T21:04:19.899+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Observation?code=http%3A%2F%2Floinc.org%7C72166-2&patient=07710040201"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Observation/11fef548-9dbf-49af-9927-1f23441923f7",
      "resource": {
        "resourceType": "Observation",
        "id": "11fef548-9dbf-49af-9927-1f23441923f7",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-09-01T07:07:43.183+00:00",
          "profile": [
            "http://tzf.com/fhir/StructureDefinition/Observation"
          ]
        }
      }
    }
  ]
}
```

```

    ],
    "tag": [
      {
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "6d02d420-0f66-433c-98f1-fa8775a8f8ad\t\t\t1"
      }
    ]
  },
  "text": {
    "status": "generated",
    "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b><
/p><p><b>id</b>: some-day-smoker</p><p><b>meta</b>: </p><p><b>category</b>: <span title=\"Codes:
{http://terminology.hl7.org/CodeSystem/observation-category social-history}\">Social History</span><
/p><p><b>code</b>: <span title=\"Codes: {http://loinc.org 72166-2}\">Tobacco smoking status</span><
/p><p><b>subject</b>: <a href=\"Patient-example.html\">Amy Shaw. Generated Summary: id: example; Medical
Record Number: 1032702 (USUAL); active; Amy V. Shaw , Amy V. Baxter ; ph: 555-555-5555(HOME), amy.
shaw@example.com; gender: female; birthDate: 1987-02-20</a></p><p><b>issued</b>: 18/03/2016 4:27:04 PM<
/p><p><b>value</b>: <span title=\"Codes: {http://snomed.info/sct 428041000124106}\">Current some day smoker<
/span></p></div>"
  },
  "identifier": [
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "11fef548-9dbf-49af-9927-1f23441923f7"
    }
  ],
  "status": "final",
  "category": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/observation-category",
          "code": "social-history",
          "display": "Social History"
        }
      ],
      "text": "Social History"
    }
  ],
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "72166-2",
        "display": "Tobacco smoking status"
      }
    ],
    "text": "Tobacco smoking status"
  },
  "subject": {
    "reference": "Patient/07710040201",
    "display": "Amy Shaw"
  },
  "issued": "2016-03-18T05:27:04Z",
  "valueCodeableConcept": {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "428041000124106"
      }
    ],
    "text": "Current some day smoker"
  }
},
{
  "fullUrl": "https://<datahub_server>/Observation/ceecf12-5e18-497f-b456-ed88ddf86cdd",
  "resource": {
    "resourceType": "Observation",

```

```

    "id": "ceeeef12-5e18-497f-b456-ed88ddf86cdd",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-09-01T07:07:43.293+00:00",
      "profile": [
        "http://tzf.com/fhir/StructureDefinition/Observation"
      ],
      "tag": [
        {
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "6d02d420-0f66-433c-98f1-fa8775a8f8ad\t\t\t1"
        }
      ]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b><
/p><p><b>id</b>: some-day-smoker</p><p><b>meta</b>: </p><p><b>category</b>: <span title=\"Codes:
{http://terminology.hl7.org/CodeSystem/observation-category social-history}\">Social History</span><
/p><p><b>code</b>: <span title=\"Codes: {http://loinc.org 72166-2}\">Tobacco smoking status</span><
/p><p><b>subject</b>: <a href=\"Patient-example.html\">Amy Shaw. Generated Summary: id: example; Medical
Record Number: 1032702 (USUAL); active; Amy V. Shaw , Amy V. Baxter ; ph: 555-555-5555(HOME), amy.
shaw@example.com; gender: female; birthDate: 1987-02-20</a></p><p><b>issued</b>: 18/03/2016 4:27:04 PM<
/p><p><b>value</b>: <span title=\"Codes: {http://snomed.info/sct 428041000124106}\">Current some day smoker<
/span></p></div>"
    },
    "identifier": [
      {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "ceeeef12-5e18-497f-b456-ed88ddf86cdd"
      }
    ],
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/observation-category",
            "code": "social-history",
            "display": "Social History"
          }
        ],
        "text": "Social History"
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "72166-2",
          "display": "Tobacco smoking status"
        }
      ],
      "text": "Tobacco smoking status"
    },
    "subject": {
      "reference": "Patient/07710040201",
      "display": "Amy Shaw"
    },
    "issued": "2016-03-18T05:27:04Z",
    "valueCodeableConcept": {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "428041000124106"
        }
      ],
      "text": "Current some day smoker"
    }
  }

```

```

    }
  }
]
}

```

[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs&date={gt|lt|ge|le}

```

[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-
category|vital-signs]&date={gt|lt|ge|le}

```

```

GET /Observation?patient=07710040201&category=http://terminology.hl7.org/CodeSystem/observation-
category|vital-signs&date=ge2014-12-05

```

```

{
  "resourceType": "Bundle",
  "id": "4c2f34d7-d9ca-422f-9def-f869ecabe830",
  "meta": {
    "lastUpdated": "2021-01-26T21:15:47.399+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Observation?category=http%3A%2F%2Fterminology.hl7.org%
2FCodeSystem%2Fobservation-category%7Cvital-signs&date=ge2014-12-05&patient=07710040201"
    },
    {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=6d31ef92-bc6f-51bc-9951-
d64b83386dcf&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Observation/0306b621-2177-43ef-842e-236c563ed096",
      "resource": {
        "resourceType": "Observation",
        "id": "0306b621-2177-43ef-842e-236c563ed096",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-09-01T06:50:46.553+00:00",
          "profile": [
            "http://tzf.com/fhir/StructureDefinition/Observation"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "562d43d6-bbf0-4466-9517-f6c0ef2a8aa5\t\t\t1"
            }
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: sat02-fi02</p><p><b>identifier</b>: o1223435-10</p><p><b>status</b>: final<
/p><p><b>category</b>: Vital Signs <span style=\"background: LightGoldenRodYellow\">(Details :
{http://terminology.hl7.org/CodeSystem/observation-category code 'vital-signs' = 'Vital Signs', given as
'Vital Signs'})</span></p><p><b>code</b>: Oxygen saturation in Arterial blood <span style=\"background:
LightGoldenRodYellow\">(Details : {LOINC code '2708-6' = 'Oxygen saturation in Arterial blood', given as
'Oxygen saturation in Arterial blood'}; {LOINC code '59408-5' = 'Oxygen saturation in Arterial blood by
Pulse oximetry', given as 'Oxygen saturation in Arterial blood by Pulse oximetry'}; {urn:iso:std:iso:11073:
10101 code '150456' = '150456', given as 'MDC_PULS_OXIM_SAT_O2'})</span></p><p><b>subject</b>: <a href=\"
Patient-example.html\">Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy
V. Shaw ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 2007-02-20</a><

```

```

<p><p><b>effective</b>: 05/12/2014 7:30:10 PM</p><p><b>value</b>: 95 %<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code % = '%')</span></p><p><b>interpretation</b>: Normal (applies to
non-numeric results) <span style=\"background: LightGoldenRodYellow\">(Details : {http://terminology.hl7.org
/CodeSystem/v3-ObservationInterpretation code 'N' = 'Normal', given as 'Normal'})</span></p><p><b>device</b>:
Acme Pulse Oximeter 2000</p><h3>ReferenceRanges</h3><table class=\"grid\"><tr><td>-</td><td><b>Low</b></td><td><b>High</b></td></tr><tr><td>*</td><td>90 %<span style=\"background: LightGoldenRodYellow\">
(Details: UCUM code % = '%')</span></td><td>99 %<span style=\"background: LightGoldenRodYellow\"> (Details:
UCUM code % = '%')</span></td></tr></table><h3>Components</h3><table class=\"grid\"><tr><td>-</td><td><b>Code</b></td><td><b>Value[x]</b></td></tr><tr><td>*</td><td>Inhaled oxygen flow rate <span
style=\"background: LightGoldenRodYellow\">(Details : {LOINC code '3151-8' = 'Inhaled oxygen flow rate',
given as 'Inhaled oxygen flow rate'})</span></td><td>6 liters/min<span style=\"background:
LightGoldenRodYellow\"> (Details: UCUM code l/min = 'l/min')</span></td></tr></table></div>
  },
  "identifier": [
    {
      "system": "http://goodcare.org/observation/id",
      "value": "o1223435-10"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "0306b621-2177-43ef-842e-236c563ed096"
    }
  ],
  "status": "final",
  "category": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/observation-category",
          "code": "vital-signs",
          "display": "Vital Signs"
        }
      ],
      "text": "Vital Signs"
    }
  ],
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "2708-6",
        "display": "Oxygen saturation in Arterial blood"
      },
      {
        "system": "http://loinc.org",
        "code": "59408-5",
        "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
      },
      {
        "system": "urn:iso:std:iso:11073:10101",
        "code": "150456",
        "display": "MDC_PULS_OXIM_SAT_O2"
      }
    ]
  },
  "subject": {
    "reference": "Patient/07710040201"
  },
  "effectiveDateTime": "2014-12-05T09:30:10+01:00",
  "valueQuantity": {
    "value": 95,
    "unit": "%",
    "system": "http://unitsofmeasure.org",
    "code": "%"
  },
  "interpretation": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/v3-

```

```

ObservationInterpretation",
    "code": "N",
    "display": "Normal"
  },
  ],
  "text": "Normal (applies to non-numeric results)"
},
],
"device": {
  "display": "Acme Pulse Oximeter 2000"
},
"referenceRange": [
  {
    "low": {
      "value": 90,
      "unit": "%",
      "system": "http://unitsofmeasure.org",
      "code": "%"
    },
    "high": {
      "value": 99,
      "unit": "%",
      "system": "http://unitsofmeasure.org",
      "code": "%"
    }
  }
],
"component": [
  {
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "3151-8",
          "display": "Inhaled oxygen flow rate"
        }
      ],
      "text": "Inhaled oxygen flow rate"
    },
    "valueQuantity": {
      "value": 6,
      "unit": "liters/min",
      "system": "http://unitsofmeasure.org",
      "code": "l/min"
    }
  }
]
},
{
  "fullUrl": "https://<datahub_server>/Observation/41fdb9a0-d5ef-49ef-8e8f-f894a353ba95",
  "resource": {
    "resourceType": "Observation",
    "id": "41fdb9a0-d5ef-49ef-8e8f-f894a353ba95",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-09-01T06:50:46.569+00:00",
      "profile": [
        "http://tzf.com/fhir/StructureDefinition/Observation"
      ],
      "tag": [
        {
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "1f9ba91f-f374-4c1a-96a6-df260fae6474\t\t\t1"
        }
      ]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with

```



```

Details</b></p><p><b>id</b>: sat02-fi02</p><p><b>identifier</b>: o1223435-10</p><p><b>status</b>: final<
/p><p><b>category</b>: Vital Signs <span style="background: LightGoldenRodYellow">(Details :
{http://terminology.hl7.org/CodeSystem/observation-category code 'vital-signs' = 'Vital Signs', given as
'Vital Signs'})</span></p><p><b>code</b>: Oxygen saturation in Arterial blood <span style="background:
LightGoldenRodYellow">(Details : {LOINC code '2708-6' = 'Oxygen saturation in Arterial blood', given as
'Oxygen saturation in Arterial blood'}; {LOINC code '59408-5' = 'Oxygen saturation in Arterial blood by
Pulse oximetry', given as 'Oxygen saturation in Arterial blood by Pulse oximetry'}; {urn:iso:std:iso:11073:
10101 code '150456' = '150456', given as 'MDC_PULS_OXIM_SAT_O2'})</span></p><p><b>subject</b>: <a href="
Patient-example.html">Generated Summary: id: example; Medical Record Number = 1032702 (USUAL); active; Amy
V. Shaw ; ph: 555-555-5555(HOME), amy.shaw@example.com; gender: female; birthDate: 2007-02-20</a><
/p><p><b>effective</b>: 05/12/2014 7:30:10 PM</p><p><b>value</b>: 95 %<span style="background:
LightGoldenRodYellow"> (Details: UCUM code % = '%')</span></p><p><b>interpretation</b>: Normal (applies to
non-numeric results) <span style="background: LightGoldenRodYellow">(Details : {http://terminology.hl7.org
/CodeSystem/v3-ObservationInterpretation code 'N' = 'Normal', given as 'Normal'})</span></p><p><b>device<
/b>: Acme Pulse Oximeter 2000</p><h3>ReferenceRanges</h3><table class="grid"><tr><td></td><td><b>Low</b></td>
</tr><tr><td><b>High</b></td><td>90 %<span style="background: LightGoldenRodYellow">
(Details: UCUM code % = '%')</span></td><tr><td>99 %<span style="background: LightGoldenRodYellow"> (Details:
UCUM code % = '%')</span></td></tr></table><h3>Components</h3><table class="grid"><tr><td><
/td><td><b>Code</b></td><td><b>Value[x]</b></td></tr><tr><td>*</td><td>Inhaled oxygen flow rate <span
style="background: LightGoldenRodYellow">(Details : {LOINC code '3151-8' = 'Inhaled oxygen flow rate',
given as 'Inhaled oxygen flow rate'})</span></td><td>6 liters/min<span style="background:
LightGoldenRodYellow"> (Details: UCUM code l/min = 'l/min')</span></td></tr></table></div>
},
  "identifier": [
    {
      "system": "http://goodcare.org/observation/id",
      "value": "o1223435-10"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "41fdb9a0-d5ef-49ef-8e8f-f894a353ba95"
    }
  ],
  "status": "final",
  "category": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/observation-category",
          "code": "vital-signs",
          "display": "Vital Signs"
        }
      ],
      "text": "Vital Signs"
    }
  ],
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "2708-6",
        "display": "Oxygen saturation in Arterial blood"
      },
      {
        "system": "http://loinc.org",
        "code": "59408-5",
        "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
      },
      {
        "system": "urn:iso:std:iso:11073:10101",
        "code": "150456",
        "display": "MDC_PULS_OXIM_SAT_O2"
      }
    ]
  },
  "subject": {
    "reference": "Patient/07710040201"
  },
  "effectiveDateTime": "2014-12-05T09:30:10+01:00",
  "performer": [

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```

        {
          "reference": "Organization/53453454",
          "display": "AUMC"
        }
      ],
      "valueQuantity": {
        "value": 95,
        "unit": "%",
        "system": "http://unitsofmeasure.org",
        "code": "%"
      },
      "interpretation": [
        {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/v3-
ObservationInterpretation",
              "code": "N",
              "display": "Normal"
            }
          ],
          "text": "Normal (applies to non-numeric results)"
        }
      ],
      "device": {
        "display": "Acme Pulse Oximeter 2000"
      },
      "referenceRange": [
        {
          "low": {
            "value": 90,
            "unit": "%",
            "system": "http://unitsofmeasure.org",
            "code": "%"
          },
          "high": {
            "value": 99,
            "unit": "%",
            "system": "http://unitsofmeasure.org",
            "code": "%"
          }
        }
      ],
      "component": [
        {
          "code": {
            "coding": [
              {
                "system": "http://loinc.org",
                "code": "3151-8",
                "display": "Inhaled oxygen flow rate"
              }
            ],
            "text": "Inhaled oxygen flow rate"
          },
          "valueQuantity": {
            "value": 6,
            "unit": "liters/min",
            "system": "http://unitsofmeasure.org",
            "code": "l/min"
          }
        }
      ]
    }
  ],
  {
    "fullUrl": "https://<datahub_server>/Observation/bodytempP1",
    "resource": {
      "resourceType": "Observation",
      "id": "bodytempP1",
      "meta": {

```

```

    "versionId": "1626754457332",
    "lastUpdated": "2020-10-21T16:01:43.864+00:00",
    "profile": [
      "http://tzf.com/fhir/StructureDefinition/Observation"
    ],
    "tag": [
      {
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "13182d5d-a006-46cd-96bc-a749f7d71ff5\t\t\t1"
      }
    ]
  },
  "identifier": [
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "bodytempP1"
    }
  ],
  "status": "final",
  "category": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/observation-category",
          "code": "vital-signs",
          "display": "Vital Signs"
        }
      ],
      "text": "Vital Signs"
    }
  ],
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "8310-5",
        "display": "Body temperature"
      }
    ],
    "text": "Body temperature"
  },
  "subject": {
    "reference": "Patient/07710040201",
    "display": "Infant Example"
  },
  "encounter": {
    "display": "GP Visit"
  },
  "effectiveDateTime": "2020-07-02",
  "valueQuantity": {
    "value": 92.53,
    "unit": "Cel",
    "system": "http://unitsofmeasure.org",
    "code": "Cel"
  },
  "note": [
    {
      "text": "WHO Males, 0-2 years Chart"
    }
  ]
}
]
}
]
}

```

[base]/Observation[id]

```
[base]/Observation[/id]

GET /Observation/some-day-smoker

{
  "resourceType" : "Observation",
  "id" : "some-day-smoker",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2022-04-11T14:20:47.886+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-smokingstatus"
    ],
    "security" : [
      {
        "system" : "https://devtzinterop.healthtranzformdev.com/qa/fhir/core/ValueSet
/ConfidentialityClassification",
        "code" : "L",
        "display" : "low"
      },
      {
        "system" : "https://devtzinterop.healthtranzformdev.com/qa/fhir/core/ValueSet
/SecurityIntegrity",
        "code" : "PATAST",
        "display" : "patient asserted"
      }
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "07556e9b-da2a-4109-991a-eldaa7578cb8[1]"
      },
      {
        "code" : "SecurityLabel",
        "display" : "1626963549501"
      },
      {
        "code" : "SecurityLabelStamped"
      }
    ]
  },
  "status" : "final",
  "category" : [
    {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/observation-category",
          "code" : "social-history",
          "display" : "Social History"
        }
      ],
      "text" : "Social History"
    }
  ],
  "code" : {
    "coding" : [
      {
        "system" : "http://loinc.org",
        "code" : "72166-2",
        "display" : "Tobacco smoking status NHIS"
      }
    ],
    "text" : "Tobacco smoking status NHIS"
  },
  "subject" : {
    "reference" : "Patient/Ptps01",
    "type" : "Patient",
    "display" : "Vara L. PerfTest1"
  }
}
```

```
    },
    "issued" : "2016-03-18T05:27:04Z",
    "valueCodeableConcept" : {
      "coding" : [
        {
          "system" : "http://snomed.info/sct",
          "code" : "428041000124106"
        }
      ],
      "text" : "Current some day smoker"
    }
  }
}
```

---

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# Observation - Vital Signs

---

## Use Case

A member uses a mobile application to retrieve their blood pressure and heart rate readings at their last doctor visit. The application UI calls an external endpoint which returns those readings at their last visit in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs]
- GET [base]/Observation?patient=[reference]&code=[system]][value]
- GET [base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs]&date={gt|lt|ge|le}
- GET [base]/Observation[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Vital Signs Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Observation?patient=[reference]&category=[http://terminology.hl7.org/CodeSystem/observation-category|vital-signs

```
[base]/Observation?patient=[reference]&category=[system]|vital-signs
GET /Observation?patient=567890&category=http://hl7.org/fhir/observation-category|vital-signs

{
  "resourceType": "Bundle",
  "id": "ae7a5741-a577-44c4-9b2d-cb18d5847d1b",
  "meta": {
    "lastUpdated": "2021-01-26T20:48:50.012+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/datahub/fhir/Observation?category=http%3A%2F%2Fhl7.org%2Ffhir%2Fobservation-category%7Cvital-signs&patient=567890"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/datahub/fhir/Observation/7777777",
      "resource": {
        "resourceType": "Observation",
        "id": "7777777",
        "meta": {
          "profile": [
            "http://tzf.com/fhir/StructureDefinition/Observation"
          ]
        }
      }
    }
  ]
}
```

```

    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: blood-pressure</p><p><b>meta</b>: </p><p><b>identifier</b>: urn:uuid:187e0c12-
8dd2-67e2-99b2-bf273c878281</p><p><b>basedOn</b>: </p><p><b>status</b>: final</p><p><b>category</b>: Vital
Signs <span>(Details : {http://hl7.org/fhir/observation-category code 'vital-signs' = 'Vital Signs', given
as 'Vital Signs'})</span></p><p><b>code</b>: Blood pressure systolic & diastolic <span>(Details : {LOINC
code '85354-9' = 'lood pressure panel with all children optional', given as 'Bood pressure panel with all
children optional'})</span></p><p><b>subject</b>: <a>Patient/example</a></p><p><b>effective</b>: Sep 17,
2012</p><p><b>performer</b>: <a>Practitioner/example</a></p><p><b>interpretation</b>: Below low normal
<span>(Details : {http://hl7.org/fhir/v2/0078 code 'L' = 'Low', given as 'low'})</span></p><p><b>bodySite<
/b>: Right arm <span>(Details : {SNOMED CT code '368209003' = 'Right upper arm', given as 'Right arm'})<
/span></p><blockquote><p><b>component</b></p><p><b>code</b>: Systolic blood pressure <span>(Details :
{LOINC code '8480-6' = 'Systolic blood pressure', given as 'Systolic blood pressure'; {SNOMED CT code
'271649006' = 'Systolic blood pressure', given as 'Systolic blood pressure'; {http://acme.org/devices
/clinical-codes code 'bp-s' = 'bp-s', given as 'Systolic Blood pressure'})</span></p><p><b>value</b>: 107
mmHg<span> (Details: UCUM code mm[Hg] = 'mmHg')</span></p><p><b>interpretation</b>: Normal <span>(Details :
{http://hl7.org/fhir/v2/0078 code 'N' = 'Normal', given as 'normal'})</span></p><
/blockquote><blockquote><p><b>component</b></p><p><b>code</b>: Diastolic blood pressure <span>(Details :
{LOINC code '8462-4' = 'Diastolic blood pressure', given as 'Diastolic blood pressure'})</span><
/p><p><b>value</b>: 60 mmHg<span> (Details: UCUM code mm[Hg] = 'mmHg')</span></p><p><b>interpretation</b>:
Below low normal <span>(Details : {http://hl7.org/fhir/v2/0078 code 'L' = 'Low', given as 'low'})</span><
/p></blockquote></div>"
    },
    "identifier": [
      {
        "system": "urn:ietf:rfc:3986",
        "value": "urn:uuid:187e0c12-8dd2-67e2-99b2-bf273c878281"
      }
    ],
    "basedOn": [
      {
        "identifier": {
          "system": "https://acme.org/identifiers",
          "value": "1234"
        }
      }
    ],
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "85354-9",
          "display": "Bood pressure panel with all children optional"
        }
      ]
    },
    "text": "Blood pressure systolic & diastolic"
  },
  "subject": {
    "reference": "Patient/567890"
  },
  "effectivePeriod": {
    "start": "2012-09-17",
    "end": "2012-09-17"
  },
  "performer": [
    {
      "reference": "Practitioner/example"
    }
  ]
}

```



```

    ],
    "interpretation": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/v2/0078",
            "code": "L",
            "display": "low"
          }
        ],
        "text": "Below low normal"
      }
    ],
    "bodySite": {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "368209003",
          "display": "Right arm"
        }
      ]
    },
    "component": [
      {
        "code": {
          "coding": [
            {
              "system": "http://loinc.org",
              "code": "8480-6",
              "display": "Systolic blood pressure"
            },
            {
              "system": "http://snomed.info/sct",
              "code": "271649006",
              "display": "Systolic blood pressure"
            },
            {
              "system": "http://acme.org/devices/clinical-codes",
              "code": "bp-s",
              "display": "Systolic Blood pressure"
            }
          ]
        },
        "valueQuantity": {
          "value": 107,
          "unit": "mmHg",
          "system": "http://unitsofmeasure.org",
          "code": "mm[Hg]"
        },
        "interpretation": [
          {
            "coding": [
              {
                "system": "http://hl7.org/fhir/v2/0078",
                "code": "N",
                "display": "normal"
              }
            ],
            "text": "Normal"
          }
        ]
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "8462-4",
          "display": "Diastolic blood pressure"
        }
      ]
    }
  ]

```



```

code '85354-9' = 'lood pressure panel with all children optional', given as 'Bood pressure panel with all
children optional')</span></p><p><b>subject</b>: <a>Patient/example</a></p><p><b>effective</b>: Sep 17,
2012</p><p><b>performer</b>: <a>Practitioner/example</a></p><p><b>interpretation</b>: Below low normal
<span>(Details : {http://hl7.org/fhir/v2/0078 code 'L' = 'Low', given as 'low'})</span></p><p><b>bodySite</b>: Right arm <span>(Details : {SNOMED CT code '368209003' = 'Right upper arm', given as 'Right arm'})</span></p><blockquote><p><b>component</b></p><p><b>code</b>: Systolic blood pressure <span>(Details :
{LOINC code '8480-6' = 'Systolic blood pressure', given as 'Systolic blood pressure'}; {SNOMED CT code
'271649006' = 'Systolic blood pressure', given as 'Systolic blood pressure'}; {http://acme.org/devices
/clinical-codes code 'bp-s' = 'bp-s', given as 'Systolic Blood pressure'})</span></p><p><b>value</b>: 107
mmHg<span> (Details: UCUM code mm[Hg] = 'mmHg')</span></p><p><b>interpretation</b>: Normal <span>(Details :
{http://hl7.org/fhir/v2/0078 code 'N' = 'Normal', given as 'normal'})</span></p></blockquote><blockquote><p><b>component</b></p><p><b>code</b>: Diastolic blood pressure <span>(Details :
{LOINC code '8462-4' = 'Diastolic blood pressure', given as 'Diastolic blood pressure'})</span></p><p><b>value</b>: 60 mmHg<span> (Details: UCUM code mm[Hg] = 'mmHg')</span></p><p><b>interpretation</b>:
Below low normal <span>(Details : {http://hl7.org/fhir/v2/0078 code 'L' = 'Low', given as 'low'})</span></p></blockquote></div>
    },
    "identifier": [
      {
        "system": "urn:ietf:rhc:3986",
        "value": "urn:uuid:187e0c12-8dd2-67e2-99b2-bf273c878281"
      }
    ],
    "basedOn": [
      {
        "identifier": {
          "system": "https://acme.org/identifiers",
          "value": "1234"
        }
      }
    ],
    "status": "final",
    "category": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/observation-category",
            "code": "vital-signs",
            "display": "Vital Signs"
          }
        ]
      }
    ],
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "85354-9",
          "display": "Bood pressure panel with all children optional"
        }
      ]
    },
    "text": "Blood pressure systolic & diastolic"
  },
  "subject": {
    "reference": "Patient/567890"
  },
  "effectivePeriod": {
    "start": "2012-09-17",
    "end": "2012-09-17"
  },
  "performer": [
    {
      "reference": "Practitioner/example"
    }
  ],
  "interpretation": [
    {
      "coding": [
        {
          "system": "http://hl7.org/fhir/v2/0078",
          "code": "L",

```

```

        "display": "low"
      }
    ],
    "text": "Below low normal"
  }
],
"bodySite": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "368209003",
      "display": "Right arm"
    }
  ]
},
"component": [
  {
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "8480-6",
          "display": "Systolic blood pressure"
        },
        {
          "system": "http://snomed.info/sct",
          "code": "271649006",
          "display": "Systolic blood pressure"
        },
        {
          "system": "http://acme.org/devices/clinical-codes",
          "code": "bp-s",
          "display": "Systolic Blood pressure"
        }
      ]
    },
    "valueQuantity": {
      "value": 107,
      "unit": "mmHg",
      "system": "http://unitsofmeasure.org",
      "code": "mm[Hg]"
    },
    "interpretation": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/v2/0078",
            "code": "N",
            "display": "normal"
          }
        ],
        "text": "Normal"
      }
    ]
  },
  {
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "8462-4",
          "display": "Diastolic blood pressure"
        }
      ]
    },
    "valueQuantity": {
      "value": 60,
      "unit": "mmHg",
      "system": "http://unitsofmeasure.org",
      "code": "mm[Hg]"
    }
  }
],

```

```

        "interpretation": [
          {
            "coding": [
              {
                "system": "http://hl7.org/fhir/v2/0078",
                "code": "L",
                "display": "low"
              }
            ],
            "text": "Below low normal"
          }
        ]
      }
    ]
  }
}

```

### [base]/Observation[id]

```

[base]/Observation[/id]

GET /Observation/vitals-panel

{
  "resourceType" : "Observation",
  "id" : "vitals-panel",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2022-04-11T14:29:43.164+00:00",
    "profile" : [
      "http://hl7.org/fhir/StructureDefinition/vitalsigns"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "ca5e66ba-83d0-4818-a2d5-40fd042e0c8a[1]"
      },
      {
        "code" : "SecurityLabelStamped"
      }
    ]
  },
  "status" : "final",
  "category" : [
    {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/observation-category",
          "code" : "vital-signs",
          "display" : "Vital Signs"
        }
      ],
      "text" : "Vital Signs"
    }
  ],
  "code" : {
    "coding" : [
      {
        "system" : "http://loinc.org",
        "code" : "85353-1",
        "display" : "Vital signs, weight, height, head circumference, oxygen saturation and BMI panel"
      }
    ],
    "text" : "Vital signs panel"
  }
}

```

```
    },
    "subject" : {
      "reference" : "Patient/Ptps01",
      "type" : "Patient",
      "display" : "Vara L. PerfTest1"
    },
    "encounter" : {
      "display" : "GP Visit"
    },
    "effectiveDateTime" : "1999-07-02",
    "hasMember" : [
      {
        "reference" : "Observation/respiratory-rate",
        "display" : "Respiratory rate"
      },
      {
        "reference" : "Observation/heart-rate",
        "display" : "Heart rate"
      },
      {
        "reference" : "Observation/blood-pressure",
        "display" : "Blood Pressure"
      }
    ]
  }
}
```

---

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# Organization

## Use Case

A mobile application would be authorized to access a health plan's organization data for a provider, an employer (group), the Payer itself, or a network in order to display contact information for that organization. When a user loads the organization screen in the mobile application UI, the UI calls in to the external endpoint for the organization. That call retrieves the Organization data and returns it in the industry-standard format. The organization information is then translated by the mobile application for display in a user friendly way.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Query Parameter	Type	Description
<a href="#">address-city</a>	string	Select organizations with an address in the specified city
<a href="#">address-country</a>	string	Select organizations with an address in the specified country
<a href="#">address-postalcode</a>	string	Select organizations with an address with the specified postal code
<a href="#">address-state</a>	string	Select organizations with an address in the specified state
<a href="#">address</a>	string	Select organizations with the specified address (matches any of the string elements of an address)
<a href="#">coverage-area</a>	reference	Select health insurance provider networks available in a region described by the specified location
<a href="#">endpoint</a>	reference	Select Organizations with the specified endpoint
<a href="#">identifier-assigner</a>	reference	Select Organizations with an identifier issued by the specified organization
<a href="#">identifier</a>	token <sup>1</sup>	Select Organizations with the specified identifier
<a href="#">name</a>	string	Select Organizations with the specified name

<a href="#">partof</a>	reference	Select Organizations that are part of the specified organization
<a href="#">qualification-code</a>	token	Select Organizations with a type of qualification matching the specified code
<a href="#">qualification-issuer</a>	reference	Select Organizations with a qualification issued by the specified organization
<a href="#">qualification-status</a>	token	Select Organizations with a qualification status matching the specified code
<a href="#">qualification-wherevalid-code</a>	token	Select Organizations with a qualification that is valid at the location indicated by the specified code
<a href="#">qualification-wherevalid-location</a>	reference	Select Organizations with a qualification that is valid at the specified location
<a href="#">telecom-available-days</a>	token	Days available
<a href="#">telecom-available-end-time</a>	token	End time
<a href="#">telecom-available-start-time</a>	token	Start time
<a href="#">type</a>	token	Select Organizations of the specified type
<a href="#">via-intermediary</a>	reference	Select Organizations with contact information available through the specified intermediary

1. A token refers to either [system][value] or [ value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Sample GET Requests

- GET [base]/Organization/[id]
- GET [base]/Organization?name=XXXXX
- GET [base]/Organization?address=xxxxx
- GET [base]/Organization?identifier=[system][value]

## Response Parameters

The response parameters for the GET method are as follows:

- [CARIN](#)
- [US Core](#)
- [Da Vinci PDEX Plan Net](#)



# Error Codes

## Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

# Sample Requests and Responses

[base]/Organization/XXXXX

CARIN BB

```
[base] / Organization / XXXXX
GET /Organization/53453454

{
  "resourceType": "Organization",
  "id": "53453454",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2012-12-12T00:00:00.000+00:00",
    "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-organization"]
  },
  "identifier": [
    {
      "system": "http://hl7.org/fhir/sid/us-npi",
      "value": "1407071236"
    },
    {
      "system": "http://example.org/fhir/sid/us-tin",
      "value": "121111111"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "53453454"
    }
  ],
  "active": true,
  "type": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/organization-type",
          "code": "prov",
          "display": "Healthcare Provider"
        }
      ]
    }
  ],
  "name": "Acme Clinic",
  "telecom": [
    {
      "system": "phone",
      "value": "(+1) 734-677-7777"
    },
    {
      "system": "email",
      "value": "customer-service@acme-clinic.org"
    }
  ],
  "address": [
    {
      "line": ["3300 Washtenaw Avenue, Suite 227"],
      "city": "Amherst",
      "state": "MA",
      "postalCode": "01002",
      "country": "USA"
    }
  ]
}
```

**[base]/Organization?name=XXXXX**

CARIN BB

```
[base] / Organization ? name = XXXXX

GET /Organization?name=Acme%20Clinic@_profile=http://hl7.org/fhir/us/car/StructureDefinition/car-in-
bb-organization

{
  "resourceType": "Organization",
  "id": "53453454",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2012-12-12T00:00:00.000+00:00",
    "profile": ["http://hl7.org/fhir/us/car/StructureDefinition/car-in-
bb-organization"]
  },
  "identifier": [{
    "system": "http://hl7.org/fhir/sid/us-npi",
    "value": "1407071236"
  }, {
    "system": "http://example.org/fhir/sid/us-tin",
    "value": "121111111"
  }, {
    "use": "official",
    "system": "com.cognizant.transform.fhir.identifiers.logical-identifier",
    "value": "53453454"
  }
],
  "active": true,
  "type": [{
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/organization-type",
      "code": "prov",
      "display": "Healthcare Provider"
    }
  ]
},
  "name": "Acme Clinic",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }, {
    "system": "email",
    "value": "customer-service@acme-clinic.org"
  }
],
  "address": [{
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  }
]
}
```

## US Core

```
[base] / Organization ? name = XXXXX

GET /Organization?name=Acme%20Clinic&_profile=http://hl7.org/fhir/us/core/StructureDefinition/us-core-
organization

{
  "resourceType": "Bundle",
  "id": "fa34af67-3a88-454f-aaae-b13390ed3439",
  "meta": {
    "lastUpdated": "2021-01-24T03:41:53.279+00:00"
  },
}
```

```

    "type": "searchset",
    "total": 6,
    "link": [{
      "relation": "self",
      "url": "https://<datahub_server>/Organization?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-Organization&name=Acme%20Clinic"
    }, {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=59371fb7-a8b5-57cd-86e5-418dc83e5eb3&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Organization/53453454",
    "resource": {
      "resourceType": "Organization",
      "id": "53453454",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2012-12-12T00:00:00.000+00:00",
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Organization"]
      },
      "identifier": [{
        "system": "http://hl7.org/fhir/sid/us-npi",
        "value": "1407071236"
      }, {
        "system": "http://example.org/fhir/sid/us-tin",
        "value": "121111111"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "53453454"
      }
    ],
    "active": true,
    "type": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/organization-type",
        "code": "prov",
        "display": "Healthcare Provider"
      }
    ]
  }
],
  "name": "Acme Clinic",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }, {
    "system": "email",
    "value": "customer-service@acme-clinic.org"
  }
],
  "address": [{
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  }
]
}, {
  "fullUrl": "https://<datahub_server>/Organization/152eed0c-6905-4464-9132-c0d4dc4b5a4d",
  "resource": {
    "resourceType": "Organization",
    "id": "152eed0c-6905-4464-9132-c0d4dc4b5a4d",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-10-05T13:14:00.268+00:00",

```



```

/StructureDefinition/plannet-Organization

{
  "resourceType": "Bundle",
  "id": "fa34af67-3a88-454f-aaaa-b13390ed3439",
  "meta": {
    "lastUpdated": "2021-01-24T03:41:53.279+00:00"
  },
  "type": "searchset",
  "total": 6,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Organization?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-Organization&name=Acme%20Clinic"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=59371fb7-a8b5-57cd-86e5-418dc83e5eb3&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Organization/53453454",
    "resource": {
      "resourceType": "Organization",
      "id": "53453454",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2012-12-12T00:00:00.000+00:00",
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Organization"]
      },
      "identifier": [{
        "system": "http://hl7.org/fhir/sid/us-npi",
        "value": "1407071236"
      }, {
        "system": "http://example.org/fhir/sid/us-tin",
        "value": "121111111"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "53453454"
      }
    ],
    "active": true,
    "type": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/organization-type",
        "code": "prov",
        "display": "Healthcare Provider"
      }
    ]
  }
  ],
  "name": "Acme Clinic",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }, {
    "system": "email",
    "value": "customer-service@acme-clinic.org"
  }
  ],
  "address": [{
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  }
  ]
}

```



**[base]/Organization?address=xxxxx****CARIN BB**

```
[base] / Organization ? address = xxxxx

GET /Organization?address=3300%20Washtenaw%20Avenue%20Suite%20227&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-organization

{
  "resourceType": "Organization",
  "id": "53453454",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2012-12-12T00:00:00.000+00:00",
    "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-organization"]
  },
  "identifier": [
    {
      "system": "http://hl7.org/fhir/sid/us-npi",
      "value": "1407071236"
    },
    {
      "system": "http://example.org/fhir/sid/us-tin",
      "value": "121111111"
    },
    {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "53453454"
    }
  ],
  "active": true,
  "type": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/organization-type",
          "code": "prov",
          "display": "Healthcare Provider"
        }
      ]
    }
  ],
  "name": "Acme Clinic",
  "telecom": [
    {
      "system": "phone",
      "value": "(+1) 734-677-7777"
    },
    {
      "system": "email",
      "value": "customer-service@acme-clinic.org"
    }
  ],
  "address": [
    {
      "line": ["3300 Washtenaw Avenue, Suite 227"],
      "city": "Amherst",
      "state": "MA",
      "postalCode": "01002",
      "country": "USA"
    }
  ]
}
```

**US Core**

```
[base] / Organization ? address = xxxxx

GET /Organization?address=3300%20Washtenaw%20Avenue%20Suite%20227&_profile=http://hl7.org/fhir/us/core
```



```

/StructureDefinition/us-core-organization

{
  "resourceType": "Bundle",
  "id": "ea434cef-b41b-4df6-8fe6-f23d297d769f",
  "meta": {
    "lastUpdated": "2021-01-24T03:53:30.330+00:00"
  },
  "type": "searchset",
  "total": 57,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Organization?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%2FStructureDefinition%2Fus-core-organization&address=3300%20Washtenaw%20Avenue%20Suite%20227"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=071d6649-6268-5b01-9b59-fel18e3eae78&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Organization/53453454",
    "resource": {
      "resourceType": "Organization",
      "id": "53453454",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2012-12-12T00:00:00.000+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-organization"]
      },
      "identifier": [{
        "system": "http://hl7.org/fhir/sid/us-npi",
        "value": "1407071236"
      }, {
        "system": "http://example.org/fhir/sid/us-tin",
        "value": "121111111"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "53453454"
      }
    ],
    "active": true,
    "type": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/organization-type",
        "code": "prov",
        "display": "Healthcare Provider"
      }
    ]
  }
  ],
  "name": "Acme Clinic",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }, {
    "system": "email",
    "value": "customer-service@acme-clinic.org"
  }
  ],
  "address": [{
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  }
  ]
}, {

```

```

    "fullUrl": "https://<datahub_server>/Organization/Org45",
    "resource": {
      "resourceType": "Organization",
      "id": "Org45",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-09-28T01:25:58.433-05:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-organization"],
        "tag": [{
          "system": "http://terminology.hl7.org/CodeSystem/common-tags",
          "code": "user-request-id",
          "display": "a9756252-e220-4a0e-bc7c-8df173e16242\t\t\t1"
        }
      ]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t</div>"
    },
    "identifier": [{
      "system": "http://hl7.org/fhir/sid/us-npi",
      "value": "987654"
    }, {
      "system": "urn:oid:2.16.840.1.113883.4.4",
      "value": "AB12346"
    }, {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "Org45"
    }
  ],
  "active": true,
  "name": "Hospital ABC",
  "telecom": [{
    "system": "phone",
    "value": "734-677-7777",
    "use": "work"
  }, {
    "system": "email",
    "value": "customer-service@hospital-abc.org",
    "use": "work"
  }
  ],
  "address": [{
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  }
  ]
}
]
}
}

```

## DaVinci PDEX Plan Net

```

[base] / Organization ? address = xxxxx

GET /Organization?address=3300%20Washtenaw%20Avenue%20Suite%20227&_profile=http://hl7.org/fhir/us/davinci-
pdex-plan-net/StructureDefinition/plannet-Organization

{
  "resourceType": "Bundle",
  "id": "1da6364e-0a33-4d74-990a-29cb5c168bc2",
  "meta": {

```

```

    "lastUpdated": "2021-01-24T03:44:52.761+00:00"
  },
  "type": "searchset",
  "total": 57,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Organization?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-Organization&address=3300%20Washtenaw%20Avenue%
20Suite%20227"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=454645ce-7faf-5957-8215-
03bf39b7ec64&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Organization/53453454",
    "resource": {
      "resourceType": "Organization",
      "id": "53453454",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2012-12-12T00:00:00.000+00:00",
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Organization"]
      },
      "identifier": [{
        "system": "http://hl7.org/fhir/sid/us-npi",
        "value": "1407071236"
      }, {
        "system": "http://example.org/fhir/sid/us-tin",
        "value": "121111111"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "53453454"
      }
    ],
    "active": true,
    "type": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/organization-type",
        "code": "prov",
        "display": "Healthcare Provider"
      }
    ]
  }
],
  "name": "Acme Clinic",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }, {
    "system": "email",
    "value": "customer-service@acme-clinic.org"
  }
],
  "address": [{
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  }
]
}, {
  "fullUrl": "https://<datahub_server>/Organization/Org45",
  "resource": {
    "resourceType": "Organization",
    "id": "Org45",

```

```

    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-09-28T01:25:58.433-05:00",
      "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Organization"],
      "tag": [{
        "system": "http://terminology.hl7.org/CodeSystem/common-tags",
        "code": "user-request-id",
        "display": "a9756252-e220-4a0e-bc7c-8df173e16242\t\t\t1"
      }
    ],
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">\n\t\t\t<p>\n\t\t\t\t<b>Generated
Narrative with Details</b>\n\t\t\t</p>\n\t\t\t\t</div>"
    },
    "identifier": [{
      "system": "http://hl7.org/fhir/sid/us-npi",
      "value": "987654"
    }, {
      "system": "urn:oid:2.16.840.1.113883.4.4",
      "value": "AB12346"
    }, {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "Org45"
    }
  ],
  "active": true,
  "name": "Hospital ABC",
  "telecom": [{
    "system": "phone",
    "value": "734-677-7777",
    "use": "work"
  }, {
    "system": "email",
    "value": "customer-service@hospital-abc.org",
    "use": "work"
  }
],
  "address": [{
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  }
]
}

```

**[base]/Organization?identifier=[system]][value]**

CARIN BB

```
[base] / Organization ? identifier = [system] | [value]

GET /Organization?identifier=http://hl7.org/fhir/sid/us-npi|121111111&_profile=http://hl7.org/fhir/us
/carin/StructureDefinition/carin-bb-organization

{
  "resourceType": "Organization",
  "id": "53453454",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2012-12-12T00:00:00.000+00:00",
    "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-organization"]
  },
  "identifier": [
    {
      "system": "http://hl7.org/fhir/sid/us-npi",
      "value": "1407071236"
    },
    {
      "system": "http://example.org/fhir/sid/us-tin",
      "value": "121111111"
    },
    {
      "use": "official",
      "system": "com.cognizant.transform.fhir.identifiers.logical-identifier",
      "value": "53453454"
    }
  ],
  "active": true,
  "type": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/organization-type",
          "code": "prov",
          "display": "Healthcare Provider"
        }
      ]
    }
  ],
  "name": "Acme Clinic",
  "telecom": [
    {
      "system": "phone",
      "value": "(+1) 734-677-7777"
    },
    {
      "system": "email",
      "value": "customer-service@acme-clinic.org"
    }
  ],
  "address": [
    {
      "line": ["3300 Washtenaw Avenue, Suite 227"],
      "city": "Amherst",
      "state": "MA",
      "postalCode": "01002",
      "country": "USA"
    }
  ]
}

```

## US Core

```
[base] / Organization ? identifier = [system] | [value]

GET /Organization?identifier=http://example.org/fhir/sid/us-tin|121111111&_profile=http://hl7.org/fhir/us
/core/StructureDefinition/us-core-organization

{
  "resourceType": "Bundle",
  "id": "49ac754a-6b1f-496f-a838-68232d7c2949",
  "meta": {
    "lastUpdated": "2021-01-24T03:50:31.539+00:00"
  },
}

```

```

    "type": "searchset",
    "total": 6,
    "link": [{
      "relation": "self",
      "url": "https://<datahub_server>/Organization?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%
2FStructureDefinition%2Fus-core-organization&identifier=http%3A%2F%2Fexample.org%2Ffhir%2Fsid%2Fus-tin%
7C121111111"
    }, {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=f35bc09e-24dc-548d-88aa-
57f063760cc7&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Organization/53453454",
    "resource": {
      "resourceType": "Organization",
      "id": "53453454",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2012-12-12T00:00:00.000+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-organization"]
      },
      "identifier": [{
        "system": "http://hl7.org/fhir/sid/us-npi",
        "value": "1407071236"
      }, {
        "system": "http://example.org/fhir/sid/us-tin",
        "value": "121111111"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "53453454"
      }
    ],
    "active": true,
    "type": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/organization-type",
        "code": "prov",
        "display": "Healthcare Provider"
      }
    ]
  }
],
  "name": "Acme Clinic",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }, {
    "system": "email",
    "value": "customer-service@acme-clinic.org"
  }
],
  "address": [{
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  }
],
}, {
  "fullUrl": "https://<datahub_server>/Organization/152eed0c-6905-4464-9132-c0d4dc4b5a4d",
  "resource": {
    "resourceType": "Organization",
    "id": "152eed0c-6905-4464-9132-c0d4dc4b5a4d",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-10-05T13:14:00.268+00:00",

```



```

{
  "resourceType": "Bundle",
  "id": "6ef37bce-3ae9-4a1f-b34a-787b776814aa",
  "meta": {
    "lastUpdated": "2021-01-24T03:47:25.659+00:00"
  },
  "type": "searchset",
  "total": 6,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Organization?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-Organization&identifier=http%3A%2F%2Fexample.org%2Ffhir%2Fsid%2Fus-tin%7C121111111"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=12e6fc78-dc14-545a-af0b-b44ab94d4930&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Organization/53453454",
    "resource": {
      "resourceType": "Organization",
      "id": "53453454",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2012-12-12T00:00:00.000+00:00",
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Organization"]
      },
      "identifier": [{
        "system": "http://hl7.org/fhir/sid/us-npi",
        "value": "1407071236"
      }, {
        "system": "http://example.org/fhir/sid/us-tin",
        "value": "121111111"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "53453454"
      }
    ],
    "active": true,
    "type": [{
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/organization-type",
        "code": "prov",
        "display": "Healthcare Provider"
      }
    ]
  }
  ],
  "name": "Acme Clinic",
  "telecom": [{
    "system": "phone",
    "value": "(+1) 734-677-7777"
  }, {
    "system": "email",
    "value": "customer-service@acme-clinic.org"
  }
  ],
  "address": [{
    "line": ["3300 Washtenaw Avenue, Suite 227"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002",
    "country": "USA"
  }
  ]
}

```





---

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# OrganizationAffiliation

## Use Case

The organization affiliation endpoint is used to retrieve relationships between two or more organizations. This relationship can include the services one organization provides to another, It can also include the locations where those services are provided and when the services are available at those locations. Users can retrieve all organization affiliations associated with an Organization Affiliation ID for display.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

ame	Base Resources	Type	Description
<a href="#">endpoint</a>	OrganizationAffiliation	reference	Select OrganizationAffiliations with the specified endpoint
<a href="#">identifier-assigner</a>	OrganizationAffiliation	reference	Select OrganizationAffiliations with an identifier issued by the specified organization
<a href="#">identifier</a>	OrganizationAffiliation	token <sup>1</sup>	Select OrganizationAffiliations with the specified identifier
<a href="#">location</a>	OrganizationAffiliation	reference	Select OrganizationAffiliations available at the specified location
<a href="#">network</a>	OrganizationAffiliation	reference	Select roles where the organization is a member of the specified health insurance provider network
<a href="#">participating-organization</a>	OrganizationAffiliation	reference	Select roles filled by the specified organization
<a href="#">primary-organization</a>	OrganizationAffiliation	reference	Select roles offered by the specified organization
<a href="#">role</a>	OrganizationAffiliation	token	Select OrganizationAffiliations with the specified role
<a href="#">service</a>	OrganizationAffiliation	reference	Select OrganizationAffiliations providing the specified service
<a href="#">specialty</a>	OrganizationAffiliation	token	Select OrganizationAffiliations associated with the specified specialty
<a href="#">via-intermediary</a>	OrganizationAffiliation	reference	Select OrganizationAffiliations with contact information available through the specified intermediary

1. A token refers to either [system][value] or [value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Supported GET Requests

- GET [base]/OrganizationAffiliation?identifier=[system][value]
- GET [base]/OrganizationAffiliation?network=[reference]
- GET [base]/OrganizationAffiliation?specialty=[system][value]
- GET [base]/OrganizationAffiliation?service=[reference]
- GET [base]/OrganizationAffiliation[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [Provider Directory - PDEX - Plan Net - Organization Affiliation](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.



```

    "active": true,
    "period": {
      "start": "2018-02-09",
      "end": "2022-02-01"
    },
    "participatingOrganization": {
      "reference": "Organization/PharmChain",
      "display": "Independence Rehabilitation Services, Inc."
    },
    "network": [
      {
        "reference": "http://hl7.org/fhir/ig/vhdir/Network/patriotppo",
        "display": "Patriot Preferred Provider Network"
      }
    ],
    "code": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/organization-role",
            "code": "provider",
            "display": "Provider",
            "userSelected": true
          }
        ],
        "text": "Provider of rehabilitation services"
      }
    ],
    "telecom": [
      {
        "extension": [
          {
            "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/contactpoint-
availabletime",
            "extension": [
              {
                "url": "daysOfWeek",
                "valueCode": "mon"
              },
              {
                "url": "daysOfWeek",
                "valueCode": "tue"
              },
              {
                "url": "daysOfWeek",
                "valueCode": "wed"
              },
              {
                "url": "daysOfWeek",
                "valueCode": "thu"
              },
              {
                "url": "daysOfWeek",
                "valueCode": "fri"
              },
              {
                "url": "availableStartTime",
                "valueTime": "08:00:00"
              },
              {
                "url": "availableEndTime",
                "valueTime": "18:00:00"
              }
            ]
          }
        ]
      },
      {
        "system": "phone",
        "value": "202-109-8765",
        "use": "work"
      }
    ]
  }
]

```

```

    }
  ]
}

```

## [base]/OrganizationAffiliation?network=[reference]

```

[base]/OrganizationAffiliation?network=[reference]

GET /OrganizationAffiliation?network=http://hl7.org/fhir/ig/vhdir/Network/patriotppo

{
  "resourceType": "Bundle",
  "id": "640492d3-f54c-4fa4-9519-477d6394dea5",
  "meta": {
    "lastUpdated": "2021-01-26T22:22:48.929+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/OrganizationAffiliation?network=http%3A%2F%2Fhl7.org%2Ffhir%2Ffig%2Fvhdir%2FNetwork%2Fpatriotppo"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/OrganizationAffiliation/orgrole1",
      "resource": {
        "resourceType": "OrganizationAffiliation",
        "id": "orgrole1",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2019-12-18T22:49:23.000-05:00",
          "profile": [
            "http://hl7.org/fhir/StructureDefinition/OrganizationAffiliation"
          ],
          "tag": [
            {
              "system": "tranzform-apim-request-ns",
              "code": "user-request-id",
              "display": "b30110a2-f630-4b60-9f82-df967c9de7a8\t\t\t1"
            }
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t\t<b>Generated Narrative with Details</b>\n\t\t\t\t\t</p>\n\t\t\t\t\t</div>"
        },
        "identifier": [
          {
            "extension": [
              {
                "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/identifier-status",
                "valueCode": "active"
              }
            ],
            "use": "secondary",
            "system": "http://example.org/www.foundingfathersmemorial.com",
            "value": "service002"
          },
          {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "orgrole1"
          }
        ]
      }
    }
  ]
}

```

```

    }
  ],
  "active": true,
  "period": {
    "start": "2018-02-09",
    "end": "2022-02-01"
  },
  "participatingOrganization": {
    "reference": "Organization/PharmChain",
    "display": "Independence Rehabilitation Services, Inc."
  },
  "network": [
    {
      "reference": "http://hl7.org/fhir/ig/vhdir/Network/patriotppo",
      "display": "Patriot Preferred Provider Network"
    }
  ],
  "code": [
    {
      "coding": [
        {
          "system": "http://hl7.org/fhir/organization-role",
          "code": "provider",
          "display": "Provider",
          "userSelected": true
        }
      ],
      "text": "Provider of rehabilitation services"
    }
  ],
  "telecom": [
    {
      "extension": [
        {
          "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/contactpoint-
availabletime",
          "extension": [
            {
              "url": "daysOfWeek",
              "valueCode": "mon"
            },
            {
              "url": "daysOfWeek",
              "valueCode": "tue"
            },
            {
              "url": "daysOfWeek",
              "valueCode": "wed"
            },
            {
              "url": "daysOfWeek",
              "valueCode": "thu"
            },
            {
              "url": "daysOfWeek",
              "valueCode": "fri"
            },
            {
              "url": "availableStartTime",
              "valueTime": "08:00:00"
            },
            {
              "url": "availableEndTime",
              "valueTime": "18:00:00"
            }
          ]
        }
      ]
    }
  ],
  "system": "phone",
  "value": "202-109-8765",
  "use": "work"

```





```

        "value": "orgrole1"
      }
    ],
    "active": true,
    "period": {
      "start": "2018-02-09",
      "end": "2022-02-01"
    },
    "participatingOrganization": {
      "reference": "Organization/PharmChain",
      "display": "Independence Rehabilitation Services, Inc."
    },
    "network": [
      {
        "reference": "http://hl7.org/fhir/ig/vhdir/Network/patriotppo",
        "display": "Patriot Preferred Provider Network"
      }
    ],
    "code": [
      {
        "coding": [
          {
            "system": "http://hl7.org/fhir/organization-role",
            "code": "provider",
            "display": "Provider",
            "userSelected": true
          }
        ],
        "text": "Provider of rehabilitation services"
      }
    ],
    "specialty": [
      {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "394602003",
            "display": "Rehabilitation - specialty"
          }
        ],
        "text": "Rehabilitation"
      }
    ],
    "healthcareService": [
      {
        "reference": "http://hl7.org/fhir/ig/vhdir/HealthcareService/independencerehab1",
        "display": "Inpatient rehabilitation services"
      },
      {
        "reference": "http://hl7.org/fhir/ig/vhdir/HealthcareService/independencerehab2",
        "display": "Outpatient rehabilitation services"
      }
    ],
    "telecom": [
      {
        "extension": [
          {
            "url": "http://hl7.org/fhir/uv/vhdir/StructureDefinition/contactpoint-
availabletime",
            "extension": [
              {
                "url": "daysOfWeek",
                "valueCode": "mon"
              },
              {
                "url": "daysOfWeek",
                "valueCode": "tue"
              },
              {
                "url": "daysOfWeek",
                "valueCode": "wed"
              }
            ]
          }
        ]
      }
    ]
  }
}

```



```
    "use" : "secondary",
    "system" : "http://example.org/www.foundingfathersmemorial.com",
    "value" : "service002",
    "assigner" : {
      "reference" : "Organization/Orgingest0123",
      "display" : "Org name23"
    }
  },
  ],
  "active" : true,
  "organization" : {
    "reference" : "Organization/Orgingest0123",
    "type" : "Organization",
    "display" : "Org name23"
  },
  "participatingOrganization" : {
    "reference" : "Organization/Orgingest0124",
    "display" : "Org name24"
  },
  "network" : [
    {
      "reference" : "Organization/Orgingest0125",
      "display" : "Org name25"
    }
  ],
  "code" : [
    {
      "coding" : [
        {
          "system" : "http://hl7.org/fhir/organization-role",
          "code" : "provider",
          "display" : "Provider",
          "userSelected" : true
        }
      ],
      "text" : "Provider of rehabilitation services"
    }
  ],
  "specialty" : [
    {
      "coding" : [
        {
          "system" : "http://snomed.info/sct",
          "code" : "394602003",
          "display" : "Rehabilitation - specialty"
        }
      ],
      "text" : "Rehabilitation"
    }
  ],
  "location" : [
    {
      "reference" : "Location/1",
      "display" : "Founding Fathers Memorial Hospital"
    }
  ],
  "healthcareService" : [
    {
      "reference" : "HealthcareService/HL0001",
      "display" : "MULTI-SPECIALTY GROUP"
    },
    {
      "reference" : "HealthcareService/Hcsp780",
      "display" : "Outpatient Physical Therapy"
    }
  ],
  "telecom" : [
    {
      "extension" : [
        {
          "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
```

```
CViaIntermediary-extension",
  "valueReference" : {
    "reference" : "Location/1",
    "display" : "South Wing, second floor"
  }
],
"system" : "phone",
"value" : "202-101-0123"
}
],
"endpoint" : [
  {
    "reference" : "Endpoint/EP2020Feb02",
    "display" : "Endpoint for Acme of CT Portal"
  }
]
}
```

---

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# Pagination

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## Use Case

A third-party application searches for a particular set of resources and receives a bundled set of results in the response. It then calls the **Pagination** endpoint to display the first 15 records (by default but configurable) on the screen (1-15), and waits for the user to page to the next page. On paging to the next page, the application calls the **Pagination** endpoint again with the next 15 records to display (16-30). Processing continues until the end of the results. Applicable to CARIN-BB, US Core and DaVinci Plan Net.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET `[base]/?_start_pages=[start-obj]&_ending_before=[end-obj]` (see [Response Parameters](#) below)
- [General search parameters](#)

## Response Parameters

The response parameters for the GET method are as follows:

<code>_starting_after</code>	Database record ID <i>[start-obj]</i> indicating the first record to be paginated.
<code>_ending_before</code>	Database record ID <i>[end-obj]</i> indicating the ending record of the pagination.

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

### US Core

```
[base] / Location ? name = XXXXX

NOTE: The examples for this endpoint are embedded in the JSON code.

GET /Location?name=level%20seven&_profile=http://hl7.org/fhir/us/core/StructureDefinition/us-core-location

{
  "resourceType": "Bundle",
  "id": "6c78b792-549f-4b38-ab45-67f639c581f3",
  "meta": {
    "lastUpdated": "2021-01-23T00:51:25.715+00:00"
  },
  "type": "searchset",
  "total": 15,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Location?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%2FStructureDefinition%2Fus-core-location&name=level%20seven"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>/?_start_pages=60d20e9970c272586c&_ending_before=6ae2d41470c271886c&_pretty=true&_bundletype=searchset"
  }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Location/Loc01",
    "resource": {
      "resourceType": "Location",
      "id": "Loc01",
      "meta": {
        "versionId": "1626754457332",
```

```

    "lastUpdated": "2020-11-25T06:08:40.285+00:00",
    "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-location"],
    "tag": [{
      "system": "tranzform-apim-request-ns",
      "code": "user-request-id",
      "display": "fd2cfb9f-5b51-4e92-b8ca-cdd096fedf6c\t\t\t1"
    }
  ],
  },
  "identifier": [{
    "system": "http://www.acme.org/location",
    "value": "29"
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "Loc01"
  }
],
"status": "active",
"name": "Health Level Seven International - Amherst",
"description": "HL7 Headquarters - East",
"telecom": [{
  "system": "phone",
  "value": "(+1) 734-677-7777"
}],
"address": {
  "line": ["3300 Washtenaw Avenue, Suite 227"],
  "city": "Amherst",
  "state": "MA",
  "postalCode": "01002",
  "country": "USA"
},
"position": {
  "longitude": -72.519854,
  "latitude": 42.373222
},
"managingOrganization": {
  "display": "Health Level Seven International"
}
}, {
  "fullUrl": "https://<datahub_server>/Location/SERGEmp",
  "resource": {
    "resourceType": "Location",
    "id": "SERGEmp",
    "meta": {
      "versionId": "1626754455377",
      "lastUpdated": "2021-01-20T13:25:32.958+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-location"]
    },
    "identifier": [{
      "type": {
        "coding": [{
          "system": "http://terminology.hl7.org/CodeSystem/v2-0301",
          "code": "HL7"
        }
      ]
    },
    "system": "NYP:tenant4",
    "value": "SERGEmp"
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "SERGEmp"
  }
],
"status": "active",
"name": "Health Level Seven International",
"description": "CE4 HL7 Headquarters WEST",
"type": [{

```



```
        "coding": [{
          "system": "http://terminology.hl7.org/CodeSystem/v3-RoleCode",
          "code": "NCCF"
        }
      ],
    "physicalType": {
      "coding": [{
        "system": "http://terminology.hl7.org/CodeSystem/v2-0307",
        "code": "ro"
      }
    ],
    "text": "ro 4"
  }
}
```

## Related Topics

[Pagination of Search Results](#)

---

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# Patient

---

## Use Case

A member downloads a mobile application and authorizes it to access their member (patient) data on the member's behalf (so they can view it). When the member loads the patient screen in the mobile application UI, they enter a non-unique or family identifier and search for their unique Patient record. The UI calls an external endpoint, which then returns the patient data in an industry-standard format. The patient data is then translated by the mobile application for display to the member. The member now views their patient information in a user friendly way.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Patient/[id]
- GET [base]/Patient?identifier=[system]][value]
- GET [base]/Patient?\_id=XXXX
- GET [base]/Patient?name=XXXXX&birthdate=XXX&gender=XXX (any combination)

## Response Parameters

The response parameters for the GET method are as follows:

- [CARIN](#)
- [US Core](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[baseurl]/Patient/XXXXXX

CARIN BB

```
GET /Patient/pat7

{
  "resourceType": "Bundle",
  "id": "e9bf5068-6e67-4a5c-8137-bf1eb7378627",
  "meta": {
    "lastUpdated": "2021-01-25T01:21:07.699+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Patient?_id=pat7"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Patient/pat7",
    "resource": {
      "resourceType": "Patient",
      "id": "pat7",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-09-22T16:41:12.310+00:00",
        "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-patient"]
      },
      "extension": [{
        "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
        "extension": [{
          "url": "ombCategory",

```

```

        "valueCoding": {
          "code": "1002-5",
          "display": "American Indian or Alaska Native"
        }
      }, {
        "url": "ombCategory",
        "valueCoding": {
          "code": "2028-9",
          "display": "Asian"
        }
      }, {
        "url": "text",
        "valueString": "Mixed"
      }
    ]
  }, {
    "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
    "extension": [{
      "url": "ombCategory",
      "valueCoding": {
        "code": "2135-2",
        "display": "Hispanic or Latino"
      }
    }, {
      "url": "text",
      "valueString": "Hispanic or Latino"
    }
  ]
}
],
"identifier": [{
  "type": {
    "coding": [{
      "code": "MRS"
    }
  ]
},
"system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
"value": "MR123"
}, {
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "pat7"
}
],
"name": [{
  "use": "official",
  "text": "John Doe",
  "family": "Doe",
  "given": ["John", "A"],
  "prefix": ["P"],
  "suffix": ["S"]
}
],
"telecom": [{
  "system": "phone",
  "value": "(712)305-0000",
  "use": "home"
}, {
  "system": "email",
  "value": "NON@NON.ORG",
  "use": "home"
}, {
  "system": "phone",
  "value": "(946)456-0000",
  "use": "work"
}
],
"gender": "male",
"birthDate": "1950-01-01",
"address": [{

```



```

{
  "resourceType": "Bundle",
  "id": "f70aa83c-db73-482f-aaaf-af4756cb184e",
  "meta": {
    "lastUpdated": "2021-01-25T01:18:32.202+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Patient?_id=pat7&_profile=http%3A%2F%2Fhl7.org%2Ffhir%
2Fus%2Fcore%2FStructureDefinition%2Fus-core-patient"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Patient/pat7",
    "resource": {
      "resourceType": "Patient",
      "id": "pat7",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-09-22T16:41:12.310+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient"]
      },
      "extension": [{
        "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
        "extension": [{
          "url": "ombCategory",
          "valueCoding": {
            "code": "1002-5",
            "display": "American Indian or Alaska Native"
          }
        }, {
          "url": "ombCategory",
          "valueCoding": {
            "code": "2028-9",
            "display": "Asian"
          }
        }, {
          "url": "text",
          "valueString": "Mixed"
        }
      ]
    }, {
      "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
      "extension": [{
        "url": "ombCategory",
        "valueCoding": {
          "code": "2135-2",
          "display": "Hispanic or Latino"
        }
      }, {
        "url": "text",
        "valueString": "Hispanic or Latino"
      }
    ]
  }
],
  "identifier": [{
    "type": {
      "coding": [{
        "code": "MRS"
      }
    ]
  },
  "system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
  "value": "MR123"
}, {
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",

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        "value": "pat7"
      }
    ],
    "name": [{
      "use": "official",
      "text": "John Doe",
      "family": "Doe",
      "given": ["John", "A"],
      "prefix": ["P"],
      "suffix": ["S"]
    }
  ],
  "telecom": [{
    "system": "phone",
    "value": "(712)305-0000",
    "use": "home"
  }, {
    "system": "email",
    "value": "NON@NON.ORG",
    "use": "home"
  }, {
    "system": "phone",
    "value": "(946)456-0000",
    "use": "work"
  }
],
"gender": "male",
"birthDate": "1950-01-01",
"address": [{
  "use": "home",
  "line": ["602 WEST", "168TH STREET"],
  "city": "Chicago",
  "district": "CHHH",
  "state": "CH",
  "postalCode": "10032",
  "country": "US"
}
],
"maritalStatus": {
  "coding": [{
    "code": "M"
  }
]
},
"contact": [{
  "relationship": [{
    "coding": [{
      "code": "FTH"
    }
  ]
},
  "text": "N Next-of-Kin"
}
],
"name": {
  "family": "Smith",
  "given": ["John"]
},
"telecom": [{
  "system": "phone",
  "value": "(712)305-1234"
}
],
"address": {
  "use": "home",
  "line": ["601 WEST", "168TH STREET"],
  "city": "Chicago",
  "district": "CHHH",
  "state": "CH",
  "postalCode": "10032",
  "country": "US"
}
},

```

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        "gender": "male"
      }
    ],
    "communication": [{
      "language": {
        "coding": [{
          "code": "EN"
        }]
      }
    }]
  }
}
]
}
}

```

## CARIN BB

```

GET /Patient?_id=pat7

{
  "resourceType": "Bundle",
  "id": "e9bf5068-6e67-4a5c-8137-bf1eb7378627",
  "meta": {
    "lastUpdated": "2021-01-25T01:21:07.699+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Patient?_id=pat7"
  }],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Patient/pat7",
    "resource": {
      "resourceType": "Patient",
      "id": "pat7",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-09-22T16:41:12.310+00:00",
        "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-patient"]
      },
      "extension": [{
        "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
        "extension": [{
          "url": "ombCategory",
          "valueCoding": {
            "code": "1002-5",
            "display": "American Indian or Alaska Native"
          }
        }],
        "url": "ombCategory",
        "valueCoding": {
          "code": "2028-9",
          "display": "Asian"
        }
      }, {
        "url": "text",
        "valueString": "Mixed"
      }
    ]
  }, {
    "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
    "extension": [{
      "url": "ombCategory",

```



```

        "valueCoding": {
          "code": "2135-2",
          "display": "Hispanic or Latino"
        }
      }, {
        "url": "text",
        "valueString": "Hispanic or Latino"
      }
    ]
  },
  "identifier": [{
    "type": {
      "coding": [{
        "code": "MRS"
      }]
    },
    "system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
    "value": "MR123"
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "pat7"
  }
],
"name": [{
  "use": "official",
  "text": "John Doe",
  "family": "Doe",
  "given": ["John", "A"],
  "prefix": ["P"],
  "suffix": ["S"]
}],
"telecom": [{
  "system": "phone",
  "value": "(712)305-0000",
  "use": "home"
}, {
  "system": "email",
  "value": "NON@NON.ORG",
  "use": "home"
}, {
  "system": "phone",
  "value": "(946)456-0000",
  "use": "work"
}],
"gender": "male",
"birthDate": "1950-01-01",
"address": [{
  "use": "home",
  "line": ["602 WEST", "168TH STREET"],
  "city": "Chicago",
  "district": "CHHH",
  "state": "CH",
  "postalCode": "10032",
  "country": "US"
}],
"maritalStatus": {
  "coding": [{
    "code": "M"
  }]
},
"contact": [{
  "relationship": [{
    "coding": [{
      "code": "FTH"
    }]
  }]
}

```



```

0eal19a8a33e&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
"entry": [{
  "fullUrl": "https://<datahub_server>/Patient/8d937131-a44a-4547-b76d-f801e8463f8c",
  "resource": {
    "resourceType": "Patient",
    "id": "8d937131-a44a-4547-b76d-f801e8463f8c",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-08-27T21:01:44.023+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient"]
    },
    "extension": [{
      "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
      "extension": [{
        "url": "ombCategory",
        "valueCoding": {
          "code": "1002-5",
          "display": "American Indian or Alaska Native"
        }
      }, {
        "url": "ombCategory",
        "valueCoding": {
          "code": "2028-9",
          "display": "Asian"
        }
      }, {
        "url": "text",
        "valueString": "Mixed"
      }
    ]
  }, {
    "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
    "extension": [{
      "url": "ombCategory",
      "valueCoding": {
        "code": "2135-2",
        "display": "Hispanic or Latino"
      }
    }, {
      "url": "text",
      "valueString": "Hispanic or Latino"
    }
  ]
},
"identifier": [{
  "type": {
    "coding": [{
      "code": "MR"
    }
  ]
}, {
  "system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
  "value": "MR123"
}, {
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "8d937131-a44a-4547-b76d-f801e8463f8c"
}
],
"name": [{
  "use": "official",
  "text": "John Doe",
  "family": "Doe",
  "given": ["John", "A"],
  "prefix": ["P"],
  "suffix": ["S"]
}
],

```

```

    "telecom": [{
      "system": "phone",
      "value": "(712)305-0000",
      "use": "home"
    }, {
      "system": "email",
      "value": "NON@NON.ORG",
      "use": "home"
    }, {
      "system": "phone",
      "value": "(946)456-0000",
      "use": "work"
    }
  ],
  "gender": "male",
  "birthDate": "1950-01-01",
  "address": [{
    "use": "home",
    "line": ["602 WEST", "168TH STREET"],
    "city": "Chicago",
    "district": "CHHH",
    "state": "CH",
    "postalCode": "10032",
    "country": "US"
  }
  ],
  "maritalStatus": {
    "coding": [{
      "code": "M"
    }
  ]
},
"contact": [{
  "relationship": [{
    "coding": [{
      "code": "FTH"
    }
    ],
    "text": "N Next-of-Kin"
  }
  ],
  "name": {
    "family": "Smith",
    "given": ["John"]
  },
  "telecom": [{
    "system": "phone",
    "value": "(712)305-1234"
  }
  ],
  "address": {
    "use": "home",
    "line": ["601 WEST", "168TH STREET"],
    "city": "Chicago",
    "district": "CHHH",
    "state": "CH",
    "postalCode": "10032",
    "country": "US"
  },
  "gender": "male"
}
],
"communication": [{
  "language": {
    "coding": [{
      "code": "EN"
    }
  ]
}
}
]

```

```

    }, {
      "fullUrl": "https://<datahub_server>/Patient/0308ccd4-eb6c-4927-809d-4386db19fca0",
      "resource": {
        "resourceType": "Patient",
        "id": "0308ccd4-eb6c-4927-809d-4386db19fca0",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-08-27T21:01:44.070+00:00",
          "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient"]
        },
        "extension": [{
          "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
          "extension": [{
            "url": "ombCategory",
            "valueCoding": {
              "code": "1002-5",
              "display": "American Indian or Alaska Native"
            }
          }, {
            "url": "ombCategory",
            "valueCoding": {
              "code": "2028-9",
              "display": "Asian"
            }
          }, {
            "url": "text",
            "valueString": "Mixed"
          }
        ]
      }, {
        "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
        "extension": [{
          "url": "ombCategory",
          "valueCoding": {
            "code": "2135-2",
            "display": "Hispanic or Latino"
          }
        ]
      }
    ]
  },
  "identifier": [{
    "type": {
      "coding": [{
        "code": "MRS"
      }
    ]
  }, {
    "system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
    "value": "MR123"
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "0308ccd4-eb6c-4927-809d-4386db19fca0"
  }
],
  "name": [{
    "use": "official",
    "text": "John Doe",
    "family": "Doe",
    "given": ["John", "A"],
    "prefix": ["P"],
    "suffix": ["S"]
  }
],
  "telecom": [{
    "system": "phone",
    "value": "(712)305-0000",
    "use": "home"
  }
], {

```

```
        "system": "email",
        "value": "NON@NON.ORG",
        "use": "home"
      }, {
        "system": "phone",
        "value": "(946)456-0000",
        "use": "work"
      }
    ],
    "gender": "male",
    "birthDate": "1950-01-01",
    "address": [{
      "use": "home",
      "line": ["602 WEST", "168TH STREET"],
      "city": "Chicago",
      "district": "CHHH",
      "state": "CH",
      "postalCode": "10032",
      "country": "US"
    }
  ],
  "maritalStatus": {
    "coding": [{
      "code": "M"
    }
  ]
},
"contact": [{
  "relationship": [{
    "coding": [{
      "code": "FTH"
    }
  ]
},
  "text": "N Next-of-Kin"
},
  "name": {
    "family": "Smith",
    "given": ["John"]
  },
  "telecom": [{
    "system": "phone",
    "value": "(712)305-1234"
  }
],
  "address": {
    "use": "home",
    "line": ["601 WEST", "168TH STREET"],
    "city": "Chicago",
    "district": "CHHH",
    "state": "CH",
    "postalCode": "10032",
    "country": "US"
  },
  "gender": "male"
}
],
"communication": [{
  "language": {
    "coding": [{
      "code": "EN"
    }
  ]
}
]
}
}
}
}
}
}
```

## CARIN BB

```

GET /Patient?identifier=http://terminology.hl7.org/CodeSystem/NYU:tenant1|MR123&_profile="http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-patient"

{
  "resourceType": "Bundle",
  "id": "3a0b2719-5b44-4de2-8b6b-ebe4273ccc3c",
  "meta": {
    "lastUpdated": "2021-01-25T01:25:11.741+00:00"
  },
  "type": "searchset",
  "total": 4,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Patient?identifier=http%3A%2F%2Fterminology.hl7.org%2FCodeSystem%2FNYU%3Atenant1%7CMR123"
    }, {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=551e5550-0f60-57c0-b6dc-2bba48d6a166&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Patient/8d937131-a44a-4547-b76d-f801e8463f8c",
      "resource": {
        "resourceType": "Patient",
        "id": "8d937131-a44a-4547-b76d-f801e8463f8c",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-08-27T21:01:44.023+00:00",
          "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-patient"]
        },
        "extension": [
          {
            "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
            "extension": [
              {
                "url": "ombCategory",
                "valueCoding": {
                  "code": "1002-5",
                  "display": "American Indian or Alaska Native"
                }
              }, {
                "url": "ombCategory",
                "valueCoding": {
                  "code": "2028-9",
                  "display": "Asian"
                }
              }, {
                "url": "text",
                "valueString": "Mixed"
              }
            ]
          }, {
            "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
            "extension": [
              {
                "url": "ombCategory",
                "valueCoding": {
                  "code": "2135-2",
                  "display": "Hispanic or Latino"
                }
              }, {
                "url": "text",
                "valueString": "Hispanic or Latino"
              }
            ]
          }
        ]
      }
    }
  ]
}

```

```

"identifier": [{
  "type": {
    "coding": [{
      "code": "MR"
    }
  ]
},
  "system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
  "value": "MR123"
}, {
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "8d937131-a44a-4547-b76d-f801e8463f8c"
}
],
"name": [{
  "use": "official",
  "text": "John Doe",
  "family": "Doe",
  "given": ["John", "A"],
  "prefix": ["P"],
  "suffix": ["S"]
}
],
"telecom": [{
  "system": "phone",
  "value": "(712)305-0000",
  "use": "home"
}, {
  "system": "email",
  "value": "NON@NON.ORG",
  "use": "home"
}, {
  "system": "phone",
  "value": "(946)456-0000",
  "use": "work"
}
],
"gender": "male",
"birthDate": "1950-01-01",
"address": [{
  "use": "home",
  "line": ["602 WEST", "168TH STREET"],
  "city": "Chicago",
  "district": "CHHH",
  "state": "CH",
  "postalCode": "10032",
  "country": "US"
}
],
"maritalStatus": {
  "coding": [{
    "code": "M"
  }
]
},
"contact": [{
  "relationship": [{
    "coding": [{
      "code": "FTH"
    }
  ]
},
  "text": "N Next-of-Kin"
}
],
"name": {
  "family": "Smith",
  "given": ["John"]
},
"telecom": [{
  "system": "phone",

```



```

        "value": "(712)305-1234"
      }
    ],
    "address": {
      "use": "home",
      "line": ["601 WEST", "168TH STREET"],
      "city": "Chicago",
      "district": "CHHH",
      "state": "CH",
      "postalCode": "10032",
      "country": "US"
    },
    "gender": "male"
  }
],
"communication": [{
  "language": {
    "coding": [{
      "code": "EN"
    }]
  }
}]
}, {
  "fullUrl": "https://<datahub_server>/Patient/0308ccd4-eb6c-4927-809d-4386db19fca0",
  "resource": {
    "resourceType": "Patient",
    "id": "0308ccd4-eb6c-4927-809d-4386db19fca0",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-08-27T21:01:44.070+00:00",
      "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-patient"]
    },
    "extension": [{
      "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
      "extension": [{
        "url": "ombCategory",
        "valueCoding": {
          "code": "1002-5",
          "display": "American Indian or Alaska Native"
        }
      }], {
        "url": "ombCategory",
        "valueCoding": {
          "code": "2028-9",
          "display": "Asian"
        }
      }], {
        "url": "text",
        "valueString": "Mixed"
      }
    ]
  }, {
    "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
    "extension": [{
      "url": "ombCategory",
      "valueCoding": {
        "code": "2135-2",
        "display": "Hispanic or Latino"
      }
    }]
  }
],
"identifier": [{
  "type": {
    "coding": [{
      "code": "MRS"
    }]
  }
}]

```

```

        ]
      },
      "system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
      "value": "MR123"
    }, {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "0308ccd4-eb6c-4927-809d-4386db19fca0"
    }
  ],
  "name": [{
    "use": "official",
    "text": "John Doe",
    "family": "Doe",
    "given": ["John", "A"],
    "prefix": ["P"],
    "suffix": ["S"]
  }
  ],
  "telecom": [{
    "system": "phone",
    "value": "(712)305-0000",
    "use": "home"
  }, {
    "system": "email",
    "value": "NON@NON.ORG",
    "use": "home"
  }, {
    "system": "phone",
    "value": "(946)456-0000",
    "use": "work"
  }
  ],
  "gender": "male",
  "birthDate": "1950-01-01",
  "address": [{
    "use": "home",
    "line": ["602 WEST", "168TH STREET"],
    "city": "Chicago",
    "district": "CHHH",
    "state": "CH",
    "postalCode": "10032",
    "country": "US"
  }
  ],
  "maritalStatus": {
    "coding": [{
      "code": "M"
    }
  ]
  },
  "contact": [{
    "relationship": [{
      "coding": [{
        "code": "FTH"
      }
      ],
      "text": "N Next-of-Kin"
    }
    ],
    "name": {
      "family": "Smith",
      "given": ["John"]
    },
    "telecom": [{
      "system": "phone",
      "value": "(712)305-1234"
    }
    ],
    "address": {
      "use": "home",

```



```

        "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
        "extension": [{
            "url": "ombCategory",
            "valueCoding": {
                "code": "1002-5",
                "display": "American Indian or Alaska Native"
            }
        }, {
            "url": "ombCategory",
            "valueCoding": {
                "code": "2028-9",
                "display": "Asian"
            }
        }, {
            "url": "text",
            "valueString": "Mixed"
        }
    ]
}, {
    "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
    "extension": [{
        "url": "ombCategory",
        "valueCoding": {
            "code": "2135-2",
            "display": "Hispanic or Latino"
        }
    }, {
        "url": "text",
        "valueString": "Hispanic or Latino"
    }
    ]
}
],
"identifier": [{
    "type": {
        "coding": [{
            "code": "MR"
        }
        ]
    },
    "system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
    "value": "MR123"
}, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "8d937131-a44a-4547-b76d-f801e8463f8c"
}
],
"name": [{
    "use": "official",
    "text": "John Doe",
    "family": "Doe",
    "given": ["John", "A"],
    "prefix": ["P"],
    "suffix": ["S"]
}
],
"telecom": [{
    "system": "phone",
    "value": "(712)305-0000",
    "use": "home"
}, {
    "system": "email",
    "value": "NON@NON.ORG",
    "use": "home"
}, {
    "system": "phone",
    "value": "(946)456-0000",
    "use": "work"
}
]

```

```

    "gender": "male",
    "birthDate": "1950-01-01",
    "address": [{
      "use": "home",
      "line": ["602 WEST", "168TH STREET"],
      "city": "Chicago",
      "district": "CHHH",
      "state": "CH",
      "postalCode": "10032",
      "country": "US"
    }
  ],
  "maritalStatus": {
    "coding": [{
      "code": "M"
    }
  ]
},
"contact": [{
  "relationship": [{
    "coding": [{
      "code": "FTH"
    }
  ]
  },
  "text": "N Next-of-Kin"
},
],
"name": {
  "family": "Smith",
  "given": ["John"]
},
"telecom": [{
  "system": "phone",
  "value": "(712)305-1234"
}
],
"address": {
  "use": "home",
  "line": ["601 WEST", "168TH STREET"],
  "city": "Chicago",
  "district": "CHHH",
  "state": "CH",
  "postalCode": "10032",
  "country": "US"
},
"gender": "male"
}
],
"communication": [{
  "language": {
    "coding": [{
      "code": "EN"
    }
  ]
}
]
}
],
}, {
  "fullUrl": "https://<datahub_server>/Patient/0308ccd4-eb6c-4927-809d-4386db19fca0",
  "resource": {
    "resourceType": "Patient",
    "id": "0308ccd4-eb6c-4927-809d-4386db19fca0",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-08-27T21:01:44.070+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient"]
    },
    "extension": [{
      "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
      "extension": [{

```

```

        "url": "ombCategory",
        "valueCoding": {
          "code": "1002-5",
          "display": "American Indian or Alaska Native"
        }
      }, {
        "url": "ombCategory",
        "valueCoding": {
          "code": "2028-9",
          "display": "Asian"
        }
      }, {
        "url": "text",
        "valueString": "Mixed"
      }
    ]
  }, {
    "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
    "extension": [{
      "url": "ombCategory",
      "valueCoding": {
        "code": "2135-2",
        "display": "Hispanic or Latino"
      }
    }
  ]
}
],
"identifier": [{
  "type": {
    "coding": [{
      "code": "MRS"
    }
  ]
},
  "system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
  "value": "MR123"
}, {
  "use": "official",
  "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  "value": "0308ccd4-eb6c-4927-809d-4386db19fca0"
}
],
"name": [{
  "use": "official",
  "text": "John Doe",
  "family": "Doe",
  "given": ["John", "A"],
  "prefix": ["P"],
  "suffix": ["S"]
}
],
"telecom": [{
  "system": "phone",
  "value": "(712)305-0000",
  "use": "home"
}, {
  "system": "email",
  "value": "NON@NON.ORG",
  "use": "home"
}, {
  "system": "phone",
  "value": "(946)456-0000",
  "use": "work"
}
],
"gender": "male",
"birthDate": "1950-01-01",
"address": [{
  "use": "home",
  "line": ["602 WEST", "168TH STREET"],

```



```

    "id": "c86d589e-32f7-460f-b716-a5352eb2b000",
    "meta": {
      "lastUpdated": "2021-01-25T01:26:34.493+00:00"
    },
    "type": "searchset",
    "total": 4,
    "link": [{
      "relation": "self",
      "url": "https://<datahub_server>/Patient?birthdate=1950-01-01&gender=male&name=John"
    }, {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=bc25fd99-3399-52e5-a185-7cc152373293&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Patient/8d937131-a44a-4547-b76d-f801e8463f8c",
    "resource": {
      "resourceType": "Patient",
      "id": "8d937131-a44a-4547-b76d-f801e8463f8c",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-08-27T21:01:44.023+00:00",
        "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-patient"]
      },
      "extension": [{
        "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
        "extension": [{
          "url": "ombCategory",
          "valueCoding": {
            "code": "1002-5",
            "display": "American Indian or Alaska Native"
          }
        }, {
          "url": "ombCategory",
          "valueCoding": {
            "code": "2028-9",
            "display": "Asian"
          }
        }, {
          "url": "text",
          "valueString": "Mixed"
        }
      ]
    }, {
      "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
      "extension": [{
        "url": "ombCategory",
        "valueCoding": {
          "code": "2135-2",
          "display": "Hispanic or Latino"
        }
      }, {
        "url": "text",
        "valueString": "Hispanic or Latino"
      }
    ]
  }
  ],
  "identifier": [{
    "type": {
      "coding": [{
        "code": "MR"
      }
    ]
  }, {
    "system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
    "value": "MR123"
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
  }

```



```

        "value": "8d937131-a44a-4547-b76d-f801e8463f8c"
      }
    ],
    "name": [{
      "use": "official",
      "text": "John Doe",
      "family": "Doe",
      "given": ["John", "A"],
      "prefix": ["P"],
      "suffix": ["S"]
    }
  ],
  "telecom": [{
    "system": "phone",
    "value": "(712)305-0000",
    "use": "home"
  }, {
    "system": "email",
    "value": "NON@NON.ORG",
    "use": "home"
  }, {
    "system": "phone",
    "value": "(946)456-0000",
    "use": "work"
  }
],
"gender": "male",
"birthDate": "1950-01-01",
"address": [{
  "use": "home",
  "line": ["602 WEST", "168TH STREET"],
  "city": "Chicago",
  "district": "CHHH",
  "state": "CH",
  "postalCode": "10032",
  "country": "US"
}
],
"maritalStatus": {
  "coding": [{
    "code": "M"
  }
]
},
"contact": [{
  "relationship": [{
    "coding": [{
      "code": "FTH"
    }
  ]
},
  "text": "N Next-of-Kin"
}
],
"name": {
  "family": "Smith",
  "given": ["John"]
},
"telecom": [{
  "system": "phone",
  "value": "(712)305-1234"
}
],
"address": {
  "use": "home",
  "line": ["601 WEST", "168TH STREET"],
  "city": "Chicago",
  "district": "CHHH",
  "state": "CH",
  "postalCode": "10032",
  "country": "US"
}
},

```

```

        "gender": "male"
      }
    ],
    "communication": [{
      "language": {
        "coding": [{
          "code": "EN"
        }]
      }
    ]
  }
}, {
  "fullUrl": "https://<datahub_server>/Patient/0308ccd4-eb6c-4927-809d-4386db19fca0",
  "resource": {
    "resourceType": "Patient",
    "id": "0308ccd4-eb6c-4927-809d-4386db19fca0",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-08-27T21:01:44.070+00:00",
      "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-patient"]
    },
    "extension": [{
      "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
      "extension": [{
        "url": "ombCategory",
        "valueCoding": {
          "code": "1002-5",
          "display": "American Indian or Alaska Native"
        }
      }, {
        "url": "ombCategory",
        "valueCoding": {
          "code": "2028-9",
          "display": "Asian"
        }
      }, {
        "url": "text",
        "valueString": "Mixed"
      }
    ]
  }, {
    "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity",
    "extension": [{
      "url": "ombCategory",
      "valueCoding": {
        "code": "2135-2",
        "display": "Hispanic or Latino"
      }
    ]
  }
],
  "identifier": [{
    "type": {
      "coding": [{
        "code": "MRS"
      }]
    },
    "system": "http://terminology.hl7.org/CodeSystem/NYU:tenant1",
    "value": "MR123"
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "0308ccd4-eb6c-4927-809d-4386db19fca0"
  }
],
  "name": [{
    "use": "official",

```

```

        "text": "John Doe",
        "family": "Doe",
        "given": ["John", "A"],
        "prefix": ["P"],
        "suffix": ["S"]
    }
],
"telecom": [{
    "system": "phone",
    "value": "(712)305-0000",
    "use": "home"
}, {
    "system": "email",
    "value": "NON@NON.ORG",
    "use": "home"
}, {
    "system": "phone",
    "value": "(946)456-0000",
    "use": "work"
}
],
"gender": "male",
"birthDate": "1950-01-01",
"address": [{
    "use": "home",
    "line": ["602 WEST", "168TH STREET"],
    "city": "Chicago",
    "district": "CHHH",
    "state": "CH",
    "postalCode": "10032",
    "country": "US"
}
],
"maritalStatus": {
    "coding": [{
        "code": "M"
    }
]
},
"contact": [{
    "relationship": [{
        "coding": [{
            "code": "FTH"
        }
        ],
        "text": "N Next-of-Kin"
    }
],
    "name": {
        "family": "Smith",
        "given": ["John"]
    },
    "telecom": [{
        "system": "phone",
        "value": "(712)305-1234"
    }
],
    "address": {
        "use": "home",
        "line": ["601 WEST", "168TH STREET"],
        "city": "Chicago",
        "district": "CHHH",
        "state": "CH",
        "postalCode": "10032",
        "country": "US"
    },
    "gender": "male"
}
],
"communication": [{
    "language": {

```

```
    "coding": [{  
      "code": "EN"  
    }]  
  }  
]  
}
```

---

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# Payer to Payer

Payer-to-payer data exchange allows health plans to share patient data with other health plans. Two operations are used in this process: **\$member-match** and **\$everything**.

Operation	Description
<b>\$member-match</b>	Retrieves a member's unique identifier from a health plan using that member's demographic and coverage information. This identifier is then used to perform subsequent queries and operations.
<b>\$everything</b>	Uses the member identifier returned by <b>\$member-match</b> to return all clinical information related to a single patient, as described in the resource or context from which this operation is invoked.

The following FHIR implementation guide was followed in the creation of this operation: <http://hl7.org/fhir/us/davinci-hrex/OperationDefinition-member-match.html>

The operation also includes the following additional POST request payload validation.

- Member Patient requires:
  - **identifier** [where **code** = mb]
  - **name**
  - **gender**
  - **dob**
- Old Coverage / **CoverageToMatch** requires:
  - **GroupId & planId**
    - Based on tenant configuration, and can be configured on request
  - **Beneficiary.reference** should be same as **MemberPatient.Identifier.code.MB** value (As referenced under Member Patient, above)
- **New Coverage / CoverageToLink** requires:
  - **Beneficiary.reference** should be same as **MemberPatient.Identifier.code.MB** value (As referenced under Member Patient, above)
- Consent requires:
  - One actor with **role.coding.code** is "IRCP"
  - **Organization.reference** should contain IRCP value

Once Health Plans have completed the Member Access stage of the Exchange, the requesting Health Plan shall utilize the access token returned from the Member Access step to request/retrieve data using **\$everything** operation.

# Person

---

## Use Case

The **Person** resource serves as a linkage resource that may provide a reference set of common demographics for an individual (human or animal) across multiple roles. This linkage can be direct to role-specific FHIR resources (**Patient**, **Practitioner** and **RelatedPerson**) residing on the same or possibly distinct FHIR systems/applications, or indirectly through the use of business identifiers.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Person?identifier=[system]][value]
- GET [base]/Person?patient=[reference]
- GET [base]/Person?name=XXXXX
- GET [base]/Person?birthdate=[date]
- GET [base]/Person/?gender=XXX
- GET [base]/Person/[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [R4 Person](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Person?identifier=[system]][value]

```
[base]/Person?identifier=[system]][value]
GET /Person?identifier=718826541
{
  "resourceType" : "Bundle",
  "id" : "f4d3d5b6-a161-4e95-8f20-677dfa594d8f",
  "meta" : {
    "lastUpdated" : "2022-03-28T15:33:47.910+00:00"
  },
  "type" : "searchset",
  "total" : 1,
  "link" : [
    {
      "relation" : "self",
      "url" : "https://<datahub_server>/Person?identifier=718826541"
    }
  ],
  "entry" : [
    {
      "fullUrl" : "https://<datahub_server>/Person/718826541",
      "resource" : {
        "resourceType" : "Person",
        "id" : "718826541",
        "meta" : {
          "versionId" : "1626754457332",
          "lastUpdated" : "2021-05-31T14:26:50+00:00",
          "source" : "NYU",
          "profile" : [
            "http://hl7.org/fhir/StructureDefinition/Person"
          ]
        }
      }
    }
  ],
}
```

```
"identifier" : [
  {
    "type" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/v2-0203",
          "code" : "SSN"
        }
      ]
    },
    "system" : "NYU:tenant4",
    "value" : "718826541"
  }
],
"name" : [
  {
    "use" : "official",
    "text" : "John Doe",
    "family" : "Doe",
    "given" : [
      "John",
      "A"
    ],
    "prefix" : [
      "P"
    ],
    "suffix" : [
      "S"
    ]
  }
],
"telecom" : [
  {
    "system" : "phone",
    "value" : "(312)000-1111",
    "use" : "home"
  },
  {
    "system" : "email",
    "value" : "ID@ABC.ORG"
  },
  {
    "system" : "fax",
    "value" : "+1-323-555-1234",
    "use" : "work"
  }
],
"gender" : "male",
"birthDate" : "1950-12-15",
"address" : [
  {
    "use" : "home",
    "type" : "postal",
    "line" : [
      "100 W.Higgins Rd",
      "Ste I-60"
    ],
    "city" : "Chicago",
    "state" : "IL",
    "postalCode" : "60601",
    "country" : "US"
  }
],
"managingOrganization" : {
  "type" : "Patient"
},
"active" : true,
"link" : [
  {
    "target" : {
      "reference" : "Patient/8da815f1-6f7f-5872-a5f4-58b4118fe6ce"
    }
  }
]
```







```

    {
      "relation" : "self",
      "url" : "https://<datahub_server>/Person?birthdate=1990-01-01&name=Dana"
    }
  ],
  "entry" : [
    {
      "fullUrl" : "https://<datahub_server>/Person/Persingest01110",
      "resource" : {
        "resourceType" : "Person",
        "id" : "Persingest01110",
        "meta" : {
          "versionId" : "1626754457332",
          "lastUpdated" : "2021-05-18T03:38:11.8210684-04:00",
          "profile" : [
            "http://hl7.org/fhir/StructureDefinition/Person"
          ]
        },
        "identifier" : [
          {
            "value" : "Persingest011"
          },
          {
            "value" : "Persingest01110"
          }
        ],
        "name" : [
          {
            "text" : "DANA STEVE110"
          }
        ],
        "telecom" : [
          {
            "system" : "phone",
            "value" : "1874646454"
          }
        ],
        "gender" : "female",
        "birthDate" : "1990-01-01",
        "address" : [
          {
            "text" : "2688 York Plz Ste   Crestline GA 342321926",
            "line" : [
              "2688 York Plz Ste   "
            ],
            "city" : "Crestline",
            "state" : "GA",
            "postalCode" : "342321926",
            "period" : {
              "start" : "2014-09-04T21:55:48+00:00",
              "end" : "2099-05-09T16:49:40+00:00"
            }
          }
        ],
        "link" : [
          {
            "target" : {
              "reference" : "Patient/Ptpingest0150",
              "type" : "Patient"
            }
          }
        ]
      }
    }
  ]
}

```

[base]/Person?name=XXXXX&gender=XXX

```
[base]/Person?name=XXXXX&gender=XXX

GET /Person?name=Dana&gender=female

{
  "resourceType" : "Bundle",
  "id" : "1004e379-6d18-472c-b358-991852e10110",
  "meta" : {
    "lastUpdated" : "2022-03-28T15:33:49.890+00:00"
  },
  "type" : "searchset",
  "total" : 1,
  "link" : [
    {
      "relation" : "self",
      "url" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/Person?gender=female&name=Dana"
    }
  ],
  "entry" : [
    {
      "fullUrl" : "https://devtzinterop.healthtranzformdev.com/qa/datahub/fhir/Person/Persingest01110",
      "resource" : {
        "resourceType" : "Person",
        "id" : "Persingest01110",
        "meta" : {
          "versionId" : "1626754457332",
          "lastUpdated" : "2021-05-18T03:38:11.8210684-04:00",
          "profile" : [
            "http://hl7.org/fhir/StructureDefinition/Person"
          ]
        },
        "identifier" : [
          {
            "value" : "Persingest011"
          },
          {
            "value" : "Persingest01110"
          }
        ],
        "name" : [
          {
            "text" : "DANA STEVE110"
          }
        ],
        "telecom" : [
          {
            "system" : "phone",
            "value" : "1874646454"
          }
        ],
        "gender" : "female",
        "birthDate" : "1990-01-01",
        "address" : [
          {
            "text" : "2688 York Plz Ste Crestline GA 342321926",
            "line" : [
              "2688 York Plz Ste "
            ],
            "city" : "Crestline",
            "state" : "GA",
            "postalCode" : "342321926",
            "period" : {
              "start" : "2014-09-04T21:55:48+00:00",
              "end" : "2099-05-09T16:49:40+00:00"
            }
          }
        ],
        "link" : [
          {

```

```

        "target" : {
          "reference" : "Patient/Ptpingest0150",
          "type" : "Patient"
        }
      ]
    }
  ]
}

```

## [base]/Person/[id]

```

[base]/Person/[id]

GET /Person/718826541

{
  "resourceType" : "Person",
  "id" : "718826541",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-05-31T14:26:50+00:00",
    "source" : "NYU",
    "profile" : [
      "http://hl7.org/fhir/StructureDefinition/Person"
    ]
  },
  "identifier" : [
    {
      "type" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/v2-0203",
            "code" : "SSN"
          }
        ]
      },
      "system" : "NYU:tenant4",
      "value" : "718826541"
    }
  ],
  "name" : [
    {
      "use" : "official",
      "text" : "John Doe",
      "family" : "Doe",
      "given" : [
        "John",
        "A"
      ],
      "prefix" : [
        "P"
      ],
      "suffix" : [
        "S"
      ]
    }
  ],
  "telecom" : [
    {
      "system" : "phone",
      "value" : "(312)000-1111",
      "use" : "home"
    },
    {
      "system" : "email",
      "value" : "ID@ABC.ORG"
    }
  ]
}

```

```
    },
    {
      "system" : "fax",
      "value" : "+1-323-555-1234",
      "use" : "work"
    }
  ],
  "gender" : "male",
  "birthDate" : "1950-12-15",
  "address" : [
    {
      "use" : "home",
      "type" : "postal",
      "line" : [
        "100 W.Higgins Rd",
        "Ste I-60"
      ],
      "city" : "Chicago",
      "state" : "IL",
      "postalCode" : "60601",
      "country" : "US"
    }
  ],
  "managingOrganization" : {
    "type" : "Patient"
  },
  "active" : true,
  "link" : [
    {
      "target" : {
        "reference" : "Patient/8da815f1-6f7f-5872-a5f4-58b4118fe6ce"
      }
    }
  ]
}
```

---

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# Practitioner

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## Use Case

A member downloads a mobile application which can help search for information about a Practitioner's affiliation to other Facilities. The application accepts a member's input of Practitioner ID, and calls the Practitioner search resource. If Practitioner ID is not known, the mobile application implements the Practitioner Search to help locate the practitioner ID to search for Facility Affiliations. In the TriZetto Connected Interoperability Solution, that call retrieves the bundle of Provider data and returns it in the industry-standard format. The list of Practitioners and their affiliations matching the input search criteria is then formatted for display in the mobile application. The member now views a list of practitioners and their affiliations in a user friendly way.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Query Parameter	Type	Description
<a href="#">telecom-available-days</a>	token <sup>1</sup>	Days available
<a href="#">telecom-available-end-time</a>	token	End time
<a href="#">telecom-available-start-time</a>	token	Start time
<a href="#">endpoint</a>	reference	Select Practitioners with the specified endpoint
<a href="#">family</a>	string	Select Practitioners with the specified family name
<a href="#">given</a>	string	Select Practitioners with the specified given name
<a href="#">identifier-assigner</a>	reference	Select Practitioners with an identifier issued by the specified organization
<a href="#">identifier</a>	token	Select Practitioners with the specified identifier
<a href="#">name</a>	string	Select Practitioners with the specified name (matches against any of the elements in the HumanName data type)
<a href="#">phonetic</a>	string	Select Practitioners with the specified name (A portion of name using some kind of phonetic matching algorithm)
<a href="#">qualification-code</a>	token	Select Practitioners with a type of qualification matching the specified code
<a href="#">qualification-issuer</a>	reference	Select Practitioners with a qualification issued by the specified organization
<a href="#">qualification-period</a>	date	Select Practitioners that have a qualification relevant to the date provided
<a href="#">qualification-status</a>	token	Select Practitioners with a qualification status matching the specified code
<a href="#">qualification-wherevalid-code</a>	token	Select Practitioners with a qualification that is valid at the location indicated by the specified code
<a href="#">qualification-wherevalid-location</a>	reference	Select Practitioners with a qualification that is valid at the specified location
<a href="#">via-intermediary</a>	reference	Select Practitioners with contact information available through the specified intermediary

1. A token refers to either [system][value] or [value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.



## Sample GET Requests

- GET [base]/Practitioner/{id}
- GET [base]/Practitioner?name=XXXX
- GET [base]/Practitioner?identifier={system}[[value]

## Response parameters

The response parameters for the GET method are as follows:

- [US Core](#)
- [Da Vinci](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Practitioner/XXXX

US Core sample request and response

```

GET /Practitioner/1020000080

{
  "resourceType": "Practitioner",
  "id": "1020000080",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2020-09-25T12:02:21.861+00:00",
    "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
  },
  "identifier": [{
    "use": "official",
    "type": {
      "coding": [{
        "code": "NPI",
        "display": "National Provider ID",
        "userSelected": true
      }
    ],
    "text": "National Provider ID"
  }, {
    "system": "http://hl7.org/fhir/sid/us-npi",
    "value": "1020000080",
    "assigner": {
      "display": "Govt"
    }
  }, {
    "use": "official",
    "type": {
      "coding": [{
        "code": "TAX",
        "display": "Federal tax ID",
        "userSelected": true
      }
    ],
    "text": "Federal tax ID"
  }, {
    "system": "clinical:tenant4",
    "value": "587654321",
    "assigner": {
      "display": "Govt"
    }
  }, {
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "1020000080"
  }
  ],
  "active": true,
  "name": [{
    "use": "official",
    "text": "MFIRST LMLAST",
    "family": "MLAST",
    "given": ["MFIRST", "L"],
    "suffix": ["MD"]
  }
  ],
  "telecom": [{
    "system": "phone",
    "value": "4343926650",
    "use": "work"
  }, {
    "system": "fax",
    "value": "4343928783",
    "use": "work"
  }
  ],
  "address": [{
    "use": "work",
    "text": "234 SEAWAY ST, MIA FL 33111 "
  }
  ]
}

```

```

    "line": ["234 SEAWAY ST"],
    "city": "MIA",
    "state": "FL",
    "postalCode": "33111"
  }, {
    "use": "billing",
    "text": "2345 OCEAN BLVD, MAIMI FL 44111 ",
    "line": ["2345 OCEAN BLVD"],
    "city": "MAIMI",
    "state": "FL",
    "postalCode": "44111"
  }
],
"qualification": [{
  "identifier": [{
    "use": "official",
    "type": {
      "coding": [{
        "code": "reg",
        "display": "registration",
        "userSelected": true
      }
    ],
    "text": "registration"
  }
],
  "code": {
    "coding": [{
      "code": "0B",
      "display": "State License Number",
      "userSelected": true
    }
  ],
  "text": "State License Number"
}
]
}
]
}

```

## [base]/Practitioner?name=XXXX

### US Core sample request and response

```

GET /Practitioner?name=Bone&_profile=http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner

{
  "resourceType": "Bundle",
  "id": "e0a4118a-7459-4614-aced-59e8bcb2cf17",
  "meta": {
    "lastUpdated": "2021-01-22T23:58:19.554+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Practitioner?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%2FStructureDefinition%2Fus-core-practitioner&name=Bone"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Practitioner/434394394",
    "resource": {
      "resourceType": "Practitioner",
      "id": "434394394",
      "meta": {

```

```

        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
    },
    "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
        "system": "http://hl7.org.fhir/sid/us-npi",
        "value": "9941339108"
    }, {
        "system": "http://www.acme.org/practitioners",
        "value": "25456"
    }
    ],
    "name": [{
        "family": "Bone",
        "given": ["Ronald"],
        "prefix": ["Dr"]
    }
    ],
    "address": [{
        "use": "home",
        "line": ["1003 Healthcare Drive"],
        "city": "Amherst",
        "state": "MA",
        "postalCode": "01002"
    }
    ]
}, {
    "fullUrl": "https://<datahub_server>/Practitioner/Practitioner01",
    "resource": {
        "resourceType": "Practitioner",
        "id": "Practitioner01",
        "meta": {
            "versionId": "1626754459918",
            "lastUpdated": "2021-01-09T11:08:53.100+00:00",
            "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"],
            "tag": [{
                "system": "http://terminology.hl7.org/CodeSystem/common-tags",
                "code": "user-request-id",
                "display": "a463a402-69f9-41b7-bbe6-91105ddece87\t\t\t1"
            }
            ]
        },
        "text": {
            "status": "generated",
            "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\"><p><b>Generated Narrative</b><
/p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: id: 9941339108, id: 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
        },
        "identifier": [{
            "system": "http://hl7.org.fhir/sid/us-npi",
            "value": "9941339108"
        }, {
            "system": "http://www.acme.org/practitioners",
            "value": "25456"
        }, {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "Practitioner01"
        }
        ],
        "name": [{
            "family": "Bone",
            "given": ["Ronald"],
            "prefix": ["Dr"]
        }
    ]
}

```



```

        "city": "Amherst",
        "state": "MA",
        "postalCode": "01002"
      }
    ]
  }, {
    "fullUrl": "https://<datahub_server>/Practitioner/Practitioner01",
    "resource": {
      "resourceType": "Practitioner",
      "id": "Practitioner01",
      "meta": {
        "versionId": "1626754459918",
        "lastUpdated": "2021-01-09T11:08:53.100+00:00",
        "profile": ["http://hl7.org/fhir/us/carin-bb/StructureDefinition/CARIN-BB-Practitioner"],
        "tag": [{
          "system": "http://terminology.hl7.org/CodeSystem/common-tags",
          "code": "user-request-id",
          "display": "a463a402-69f9-41b7-bbe6-91105ddece87\t\t\t1"
        }
      ],
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: id: 9941339108, id: 25456</p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p></div>"
      },
      "identifier": [{
        "system": "http://hl7.org/fhir/sid/us-npi",
        "value": "9941339108"
      }, {
        "system": "http://www.acme.org/practitioners",
        "value": "25456"
      }, {
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "Practitioner01"
      }
    ],
    "name": [{
      "family": "Bone",
      "given": ["Ronald"],
      "prefix": ["Dr"]
    }
  ],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
]
}
}
]
}
}

```

## DaVinci PDEX Plan Net sample request and response

```
[base] / Practitioner ? name = XXXX
```

```
GET /Practitioner?name=Bone&_profile=http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Practitioner
```

```

{
  "resourceType": "Bundle",
  "id": "e171a0df-2efc-4ddf-a2f5-63f0738125e8",
  "meta": {
    "lastUpdated": "2021-01-23T00:42:14.306+00:00"
  },
  "type": "searchset",
  "total": 2,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Practitioner?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-Practitioner&name=Bone"
  }],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Practitioner/434394394",
    "resource": {
      "resourceType": "Practitioner",
      "id": "434394394",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Practitioner"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456</p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p></div>"
      },
      "identifier": [{
        "system": "http://hl7.org/fhir/sid/us-npi",
        "value": "9941339108"
      }, {
        "system": "http://www.acme.org/practitioners",
        "value": "25456"
      }],
      "name": [{
        "family": "Bone",
        "given": ["Ronald"],
        "prefix": ["Dr"]
      }],
      "address": [{
        "use": "home",
        "line": ["1003 Healthcare Drive"],
        "city": "Amherst",
        "state": "MA",
        "postalCode": "01002"
      }],
    }
  ], {
    "fullUrl": "https://<datahub_server>/Practitioner/Practitioner01",
    "resource": {
      "resourceType": "Practitioner",
      "id": "Practitioner01",
      "meta": {
        "versionId": "1626754459918",
        "lastUpdated": "2021-01-09T11:08:53.100+00:00",
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-Practitioner"],
        "tag": [{
          "system": "http://terminology.hl7.org/CodeSystem/common-tags",
          "code": "user-request-id",
          "display": "a463a402-69f9-41b7-bbe6-91105ddece87\t\t\t1"
        }],
      }
    }
  }
}

```

```

    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b><
/p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: id: 9941339108, id: 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
      "system": "http://hl7.org.fhir/sid/us-npi",
      "value": "9941339108"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }, {
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "Practitioner01"
    }
  ],
  "name": [{
    "family": "Bone",
    "given": ["Ronald"],
    "prefix": ["Dr"]
  }
  ],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
  ]
}
]
}
]
}
}

```

**[base]/Practitioner?identifier=[system][value]**

### US Core sample request and response

```

[base] / Practitioner ? identifier = [system] | [value]

GET /Practitioner?identifier=http://www.acme.org/practitioners|25456&_profile=http://hl7.org/fhir/us/core
/StructureDefinition/us-core-practitioner

{
  "resourceType": "Bundle",
  "id": "d3a4ea73-0fa8-4699-ba25-063136ba3f86",
  "meta": {
    "lastUpdated": "2021-01-22T23:54:18.322+00:00"
  },
  "type": "searchset",
  "total": 8,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Practitioner?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcore%
2FStructureDefinition%2Fus-core-practitioner&identifier=http%3A%2F%2Fwww.acme.org%2Fpractitioners%7C25456"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=8578d765-5418-50e4-9982-
5adf984e6d67&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
  ]
}

```



```

],
"entry": [{
  "fullUrl": "https://<datahub_server>/Practitioner/434394394",
  "resource": {
    "resourceType": "Practitioner",
    "id": "434394394",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
      "system": "http://hl7.org.fhir/sid/us-npi",
      "value": "9941339108"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }
  ],
  "name": [{
    "family": "Bone",
    "given": ["Ronald"],
    "prefix": ["Dr"]
  }
],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
]
}], {
  "fullUrl": "https://<datahub_server>/Practitioner/4546487987",
  "resource": {
    "resourceType": "Practitioner",
    "id": "4546487987",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
      "system": "http://hl7.org.fhir/sid/us-npi",
      "value": "9941339108"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }
  ],
  "name": [{
    "family": "John",
    "given": ["Ronald"],
    "prefix": ["Dr"]
  }
],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],

```

```

        "city": "Amherst",
        "state": "MA",
        "postalCode": "01002"
      }
    ]
  }
}

```

## CARIN BB Sample request and response

```

[base] / Practitioner ? identifier = [system] | [value]

GET /Practitioner?identifier=http://www.acme.org/practitioners|25456&_profile=http://hl7.org/fhir/us
/carin-bb/StructureDefinition/CARIN-BB-Practitioner

{
  "resourceType": "Bundle",
  "id": "772b3ba2-322b-49fc-baee-fa8e4225d095",
  "meta": {
    "lastUpdated": "2021-01-23T00:37:58.316+00:00"
  },
  "type": "searchset",
  "total": 8,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/Practitioner?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcarin-
bb%2FStructureDefinition%2FCARIN-BB-Practitioner&identifier=http%3A%2F%2Fwww.acme.org%2Fpractitioners%
7C25456"
    }, {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=24d37cb6-4840-5a9a-b29c-
9d546a03eb86&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/Practitioner/434394394",
      "resource": {
        "resourceType": "Practitioner",
        "id": "434394394",
        "meta": {
          "profile": ["http://hl7.org/fhir/us/carin-bb/StructureDefinition/CARIN-BB-Practitioner"]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
        },
        "identifier": [
          {
            "system": "http://hl7.org.fhir/sid/us-npi",
            "value": "9941339108"
          },
          {
            "system": "http://www.acme.org/practitioners",
            "value": "25456"
          }
        ],
        "name": [
          {
            "family": "Bone",
            "given": ["Ronald"],
            "prefix": ["Dr"]
          }
        ],
        "address": [
          {
            "use": "home",

```



```

2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-Practitioner&identifier=http%3A%2F%2Fwww.acme.org%
2Fpractitioners%7C25456"
    }, {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=78d4b720-4193-5b2e-a4d5-
22b81fe3b2d7&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
    }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Practitioner/434394394",
    "resource": {
      "resourceType": "Practitioner",
      "id": "434394394",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Practitioner"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
      },
      "identifier": [{
        "system": "http://hl7.org.fhir/sid/us-npi",
        "value": "9941339108"
      }, {
        "system": "http://www.acme.org/practitioners",
        "value": "25456"
      }
    ],
    "name": [{
      "family": "Bone",
      "given": ["Ronald"],
      "prefix": ["Dr"]
    }
  ],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
  ]
}, {
  "fullUrl": "https://<datahub_server>/Practitioner/4546487987",
  "resource": {
    "resourceType": "Practitioner",
    "id": "4546487987",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
Practitioner"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
      "system": "http://hl7.org.fhir/sid/us-npi",
      "value": "9941339108"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }
  ]
},
],

```

```
    "name": [{
      "family": "John",
      "given": ["Ronald"],
      "prefix": ["Dr"]
    }
  ],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
]
}
```

---

#### Legal Information:

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# PractitionerRole

## Use Case

A member downloads a mobile application which can help search for information about a Practitioner's affiliation to other Facilities. The application accepts a member's input of Practitioner ID, and calls the Practitioner search resource. If Practitioner ID is not known, the mobile application implements the Practitioner Search to help locate the practitioner ID to search for Facility Affiliations. That call retrieves the bundle of Provider data and returns it in the industry-standard format. The list of Practitioners and their affiliations matching the input search criteria is then formatted for display in the mobile application.

The member now views a list of practitioners and their affiliations in a user friendly way.

## Supported Query Parameters

These query parameters can be sent in any combination.

Query Parameters

See also: [Common Request Parameters](#)

Query Parameter	Type	Description
<a href="#">available-days</a>	token <sup>1</sup>	Days available
<a href="#">available-end-time</a>	token	Available end time
<a href="#">available-start-time</a>	token	Available start time
<a href="#">telecom-available-days</a>	token	Days available
<a href="#">telecom-available-end-time</a>	token	End time
<a href="#">telecom-available-start-time</a>	token	Start time
<a href="#">endpoint</a>	reference	Select PractitionerRoles with the specified endpoint
<a href="#">identifier-assigner</a>	reference	Select PractitionerRoles with an identifier issued by the specified organization
<a href="#">identifier</a>	token	Select PractitionerRoles with the specified identifier
<a href="#">location</a>	reference	Select PractitionerRoles available at the specified location
<a href="#">network</a>	reference	Select roles where the practitioner is a member of the specified health insurance provider network

<a href="#">new-patient-network</a>	reference	Select PractitionerRoles that are part of the specified network and are/are not accepting new patients
<a href="#">new-patient</a>	token	Select PractitionerRoles that are/are not accepting new patients
<a href="#">organization</a>	reference	Select PractitionerRoles available at the specified organization
<a href="#">practitioner</a>	reference	Select roles filled by the specified practitioner
<a href="#">qualification-code</a>	token	Select PractitionerRoles with a type of qualification matching the specified code
<a href="#">qualification-issuer</a>	reference	Select PractitionerRoles with a qualification issued by the specified organization
<a href="#">qualification-status</a>	token	Select PractitionerRoles with a qualification status matching the specified code
<a href="#">qualification-wherevalid-code</a>	token	Select PractitionerRoles with a qualification that is valid at the location indicated by the specified code
<a href="#">qualification-wherevalid-location</a>	reference	Select PractitionerRoles with a qualification that is valid at the specified location
<a href="#">role</a>	token	Select PractitionerRoles with the specified role
<a href="#">service</a>	reference	Select PractitionerRoles providing the specified service
<a href="#">specialty</a>	token	Select PractitionerRoles associated with the specified specialty
<a href="#">via-intermediary</a>	reference	Select PractitionerRoles with contact information available through the specified intermediary

1. A token refers to either [system][value] or [ value]. Refer to <https://www.hl7.org/fhir/search.html#token> where the code is the Identifier.value.

## Sample GET Requests

- GET [base]/PractitionerRole?specialty=[system][value]
- GET [base]/PractitionerRole?specialty=[system][value]&\_include=PractitionerRole:practitioner&\_include=PractitionerRole:endpoint
- GET [base]/PractitionerRole?practitioner.identifier=[system][value]
- GET [base]/PractitionerRole?practitioner.identifier=[system][value]&\_include=PractitionerRole:practitioner&\_include=PractitionerRole:endpoint
- GET [base]/PractitionerRole?practitioner.name=XXXX

- GET [base]/PractitionerRole?practitioner.name=XXXX?\_include=PractitionerRole:practitioner&\_include=PractitionerRole:endpoint
- GET [base]/PractitionerRole[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [CARIN BB](#)
- [US Core](#)
- [Da Vinci PDEX Plan Net](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

**[base]/PractitionerRole?specialty=[system]][value]**

CARIN BB

```
[base] / PractitionerRole ? specialty = [system] | [value]
```



```

GET /PractitionerRole?specialty=http://snomed.info/sct|9632001&_profile=http://hl7.org/fhir/us/carin
/StructureDefinition/carin-bb-practitionerrole

{
  "resourceType": "Bundle",
  "id": "3cb298c2-18ea-4fdf-9251-cab78b9ba2e7",
  "meta": {
    "lastUpdated": "2021-01-25T17:34:28.938+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fcarin%2FStructureDefinition%2Fcarin-bb-practitionerrole&specialty=http%3A%2F%2Fsnomed.info%2Fsct%
7C9632001"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=f1143e39-1910-52dd-908d-
64e7a4913a4c&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/4546487987",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "4546487987",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-
practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t\tDr Adam
Careful is a Referring Practitioner for Acme Hospital from 1-Jan 2012 to 31-Mar\n\t\t\t\t\t2012\n\t\t\t\t\t</p>\n\t\t\t</div>"
      },
      "identifier": [{
        "system": "http://www.acme.org/practitioners",
        "value": "23"
      }
    ],
    "active": true,
    "period": {
      "start": "2012-01-01",
      "end": "2012-03-31"
    },
    "practitioner": {
      "reference": "Practitioner/4546487987",
      "display": "Dr Adam Careful"
    },
    "organization": {
      "reference": "Organization/f001"
    },
    "code": [{
      "coding": [{
        "system": "http://hl7.org/fhir/v2/0286",
        "code": "RP"
      }
    ]
  }
],
  "specialty": [{
    "coding": [{
      "system": "http://snomed.info/sct",
      "code": "9632001",
      "display": "General medical practice"
    }
  ]
}
}

```

```

    ],
    "location": [{
      "reference": "Location/1",
      "display": "South Wing, second floor"
    }
  ],
  "healthcareService": [{
    "reference": "HealthcareService/example"
  }
],
"telecom": [{
  "system": "phone",
  "value": "(03) 5555 6473",
  "use": "work"
}, {
  "system": "email",
  "value": "adam.southern@example.org",
  "use": "work"
}
],
"availableTime": [{
  "daysOfWeek": ["mon", "tue", "wed"],
  "availableStartTime": "09:00:00",
  "availableEndTime": "16:30:00"
}, {
  "daysOfWeek": ["thu", "fri"],
  "availableStartTime": "09:00:00",
  "availableEndTime": "12:00:00"
}
],
"notAvailable": [{
  "description": "Adam will be on extended leave during May 2017",
  "during": {
    "start": "2017-05-01",
    "end": "2017-05-20"
  }
}
],
"availabilityExceptions": "Adam is generally unavailable on public holidays and during the
Christmas/New Year break",
"endpoint": [{
  "reference": "Endpoint/555666"
}, {
  "reference": "Endpoint/777888"
}
]
}, {
  "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
  "resource": {
    "resourceType": "PractitionerRole",
    "id": "45345345",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/car/StructureDefinition/car/BB-
practitionerrole"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n          <span style=\"color:
gray;\">practitioner:</span> Carla Espinosa<br/><span style=\"color: gray;\">organization:</span> AUMC<br
/><span style=\"color: gray;\">role:</span> Renal nurse\n          </div>"
    },
    "practitioner": {
      "reference": "Practitioner/45345345",
      "display": "Carla Espinosa"
    },
    "organization": {
      "reference": "Organization/f201",
      "display": "AUMC"
    }
  },
  "code": [{

```

```

        "coding": [{
          "system": "http://snomed.info/sct",
          "code": "224565004",
          "display": "Renal nurse"
        }
      ],
    ],
    "specialty": [{
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "9632001",
        "display": "Nursing procedure"
      }
    ]
  },
],
"endpoint": [{
  "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
}
]
}
]
}
}

```

## DaVinci PDEX Plan Net

```

[base] / PractitionerRole ? specialty = [system] | [value]

GET /PractitionerRole?specialty=http://snomed.info/sct|9632001&_profile=http://hl7.org/fhir/us/davinci-
pdex-plan-net/StructureDefinition/plannet-PractitionerRole

{
  "resourceType": "Bundle",
  "id": "ac61e18c-4718-41b1-a3a9-f1924f856919",
  "meta": {
    "lastUpdated": "2021-01-25T17:41:46.081+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-PractitionerRole&specialty=http%3A%2F%2Fsnomed.info%
2Fsct%7C9632001"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=87885570-e769-5525-9a0d-
12a206fae996&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/4546487987",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "4546487987",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
PractitionerRole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t\tDr Adam
Careful is a Referring Practitioner for Acme Hospital from 1-Jan 2012 to 31-Mar\n\t\t\t\t\t2012\n\t\t\t\t\t<
/p>\n\t\t\t</div>"
      },
      "identifier": [{

```

```

        "system": "http://www.acme.org/practitioners",
        "value": "23"
    }
],
"active": true,
"period": {
    "start": "2012-01-01",
    "end": "2012-03-31"
},
"practitioner": {
    "reference": "Practitioner/4546487987",
    "display": "Dr Adam Careful"
},
"organization": {
    "reference": "Organization/f001"
},
"code": [{
    "coding": [{
        "system": "http://hl7.org/fhir/v2/0286",
        "code": "RP"
    }
    ]
}],
"specialty": [{
    "coding": [{
        "system": "http://snomed.info/sct",
        "code": "9632001",
        "display": "General medical practice"
    }
    ]
}],
"location": [{
    "reference": "Location/1",
    "display": "South Wing, second floor"
}],
"healthcareService": [{
    "reference": "HealthcareService/example"
}],
"telecom": [{
    "system": "phone",
    "value": "(03) 5555 6473",
    "use": "work"
}, {
    "system": "email",
    "value": "adam.southern@example.org",
    "use": "work"
}],
"availableTime": [{
    "daysOfWeek": ["mon", "tue", "wed"],
    "availableStartTime": "09:00:00",
    "availableEndTime": "16:30:00"
}, {
    "daysOfWeek": ["thu", "fri"],
    "availableStartTime": "09:00:00",
    "availableEndTime": "12:00:00"
}],
"notAvailable": [{
    "description": "Adam will be on extended leave during May 2017",
    "during": {
        "start": "2017-05-01",
        "end": "2017-05-20"
    }
}],
"availabilityExceptions": "Adam is generally unavailable on public holidays and during the

```

```

Christmas/New Year break",
  "endpoint": [{
    "reference": "Endpoint/555666"
  }, {
    "reference": "Endpoint/777888"
  }
  ],
}, {
  "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
  "resource": {
    "resourceType": "PractitionerRole",
    "id": "45345345",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-PractitionerRole"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\" >\n          <span style=\"color: gray;\">practitioner:</span> Carla Espinosa<br/><span style=\"color: gray;\">organization:</span> AUMC<br /><span style=\"color: gray;\">role:</span> Renal nurse\n          </div>"
    },
    "practitioner": {
      "reference": "Practitioner/45345345",
      "display": "Carla Espinosa"
    },
    "organization": {
      "reference": "Organization/f201",
      "display": "AUMC"
    },
    "code": [{
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "224565004",
        "display": "Renal nurse"
      }
      ]
    }
  ],
  "specialty": [{
    "coding": [{
      "system": "http://snomed.info/sct",
      "code": "9632001",
      "display": "Nursing procedure"
    }
    ]
  }
  ],
  "endpoint": [{
    "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
  }
  ]
}
]
}
}

```

## US Core

```

[base] / PractitionerRole ? specialty = [system] | [value]

GET /PractitionerRole?specialty=http://snomed.info/sct|9632001

{
  "resourceType": "Bundle",
  "id": "7a933fd6-b2aa-49ba-9463-7fe099115dca",
  "meta": {

```

```

    "lastUpdated": "2021-01-25T17:17:48.704+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?specialty=http%3A%2F%2Fsnomed.info%2F%2Fsct%
7C9632001"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=313bb5c3-beed-5e9d-90f9-
590ad8e95a8d&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/4546487987",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "4546487987",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\tDr Adam
Careful is a Referring Practitioner for Acme Hospital from 1-Jan 2012 to 31-Mar\n\t\t\t\t2012\n\t\t\t</p>\n\t\t</div>"
      },
      "identifier": [{
        "system": "http://www.acme.org/practitioners",
        "value": "23"
      }
    ],
    "active": true,
    "period": {
      "start": "2012-01-01",
      "end": "2012-03-31"
    },
    "practitioner": {
      "reference": "Practitioner/4546487987",
      "display": "Dr Adam Careful"
    },
    "organization": {
      "reference": "Organization/f001"
    },
    "code": [{
      "coding": [{
        "system": "http://hl7.org/fhir/v2/0286",
        "code": "RP"
      }
    ]
  }
],
  "specialty": [{
    "coding": [{
      "system": "http://snomed.info/sct",
      "code": "9632001",
      "display": "General medical practice"
    }
  ]
},
  "location": [{
    "reference": "Location/1",
    "display": "South Wing, second floor"
  }
],
  "healthcareService": [{
    "reference": "HealthcareService/example"
  }
],

```

```

    "telecom": [{
      "system": "phone",
      "value": "(03) 5555 6473",
      "use": "work"
    }, {
      "system": "email",
      "value": "adam.southern@example.org",
      "use": "work"
    }
  ],
  "availableTime": [{
    "daysOfWeek": ["mon", "tue", "wed"],
    "availableStartTime": "09:00:00",
    "availableEndTime": "16:30:00"
  }, {
    "daysOfWeek": ["thu", "fri"],
    "availableStartTime": "09:00:00",
    "availableEndTime": "12:00:00"
  }
  ],
  "notAvailable": [{
    "description": "Adam will be on extended leave during May 2017",
    "during": {
      "start": "2017-05-01",
      "end": "2017-05-20"
    }
  }
  ],
  "availabilityExceptions": "Adam is generally unavailable on public holidays and during the
Christmas/New Year break",
  "endpoint": [{
    "reference": "Endpoint/555666"
  }, {
    "reference": "Endpoint/777888"
  }
  ]
}, {
  "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
  "resource": {
    "resourceType": "PractitionerRole",
    "id": "45345345",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\" \>\n          <span style=\"color:
gray;\">practitioner:</span> Carla Espinosa<br/><span style=\"color: gray;\">organization:</span> AUMC<br
/><span style=\"color: gray;\">role:</span> Renal nurse\n          </div>"
    },
    "practitioner": {
      "reference": "Practitioner/45345345",
      "display": "Carla Espinosa"
    },
    "organization": {
      "reference": "Organization/f201",
      "display": "AUMC"
    },
    "code": [{
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "224565004",
        "display": "Renal nurse"
      }
      ]
    }
  ]
},
  "specialty": [{
    "coding": [{
      "system": "http://snomed.info/sct",

```

```

        "code": "9632001",
        "display": "Nursing procedure"
      }
    ]
  },
  "endpoint": [
    {
      "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
    }
  ]
}
]
}
}

```

**[base]/PractitionerRole?specialty=[system][value]&\_include=PractitionerRole:practitioner&\_include=PractitionerRole:endpoint**

### CARIN BB

```

[base] / PractitionerRole ? specialty = [system] | [value] & _include = PractitionerRole : practitioner &
_include = PractitionerRole : endpoint

GET /PractitionerRole?specialty=9632001&_include=PractitionerRole:practitioner&_include=PractitionerRole:
endpoint&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-practitionerrole

{
  "resourceType": "Bundle",
  "id": "8a2d4871-e11c-4c88-8e1b-cd3c4da21e3e",
  "meta": {
    "lastUpdated": "2021-01-25T17:35:59.193+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/PractitionerRole?_include=PractitionerRole%
3Apractitioner&_include=PractitionerRole%3Aendpoint&_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcarin%
2FStructureDefinition%2Fcarin-bb-practitionerrole&specialty=9632001"
    }, {
      "relation": "next",
      "url": "https://<datahub_server>?_getpages=262c52af-dclb-5fc3-9b7f-
5b68f41a472d&_getpagesoffset=2&_count=2&_pretty=true&_include=PractitionerRole%
3Aendpoint&_include=PractitionerRole%3Apractitioner&_bundletype=searchset"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/PractitionerRole/4546487987",
      "resource": {
        "resourceType": "PractitionerRole",
        "id": "4546487987",
        "meta": {
          "profile": [ "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-
practitionerrole" ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\tDr Adam
Careful is a Referring Practitioner for Acme Hospital from 1-Jan 2012 to 31-Mar\n\t\t\t\t2012\n\t\t\t</p>\n\t\t\t</div>"
        },
        "identifier": [
          {
            "system": "http://www.acme.org/practitioners",

```



```

        "value": "23"
      }
    ],
    "active": true,
    "period": {
      "start": "2012-01-01",
      "end": "2012-03-31"
    },
    "practitioner": {
      "reference": "Practitioner/4546487987",
      "display": "Dr Adam Careful"
    },
    "organization": {
      "reference": "Organization/f001"
    },
    "code": [{
      "coding": [{
        "system": "http://hl7.org/fhir/v2/0286",
        "code": "RP"
      }
    ]
  }
],
"specialty": [{
  "coding": [{
    "system": "http://snomed.info/sct",
    "code": "9632001",
    "display": "General medical practice"
  }
]
}
],
"location": [{
  "reference": "Location/1",
  "display": "South Wing, second floor"
}
],
"healthcareService": [{
  "reference": "HealthcareService/example"
}
],
"telecom": [{
  "system": "phone",
  "value": "(03) 5555 6473",
  "use": "work"
}, {
  "system": "email",
  "value": "adam.southern@example.org",
  "use": "work"
}
],
"availableTime": [{
  "daysOfWeek": ["mon", "tue", "wed"],
  "availableStartTime": "09:00:00",
  "availableEndTime": "16:30:00"
}, {
  "daysOfWeek": ["thu", "fri"],
  "availableStartTime": "09:00:00",
  "availableEndTime": "12:00:00"
}
],
"notAvailable": [{
  "description": "Adam will be on extended leave during May 2017",
  "during": {
    "start": "2017-05-01",
    "end": "2017-05-20"
  }
}
],
"availabilityExceptions": "Adam is generally unavailable on public holidays and during the
Christmas/New Year break",

```

```

        "endpoint": [{
            "reference": "Endpoint/555666"
        }, {
            "reference": "Endpoint/777888"
        }
    ],
    "search": {
        "mode": "match"
    }
}, {
    "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
    "resource": {
        "resourceType": "PractitionerRole",
        "id": "45345345",
        "meta": {
            "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-
practitionerrole"]
        },
        "text": {
            "status": "generated",
            "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"\>\n                <span style=\"color:
gray;\">practitioner:</span> Carla Espinosa<br/><span style=\"color: gray;\">organization:</span> AUMC<br
/><span style=\"color: gray;\">role:</span> Renal nurse\n                </div>"
        },
        "practitioner": {
            "reference": "Practitioner/45345345",
            "display": "Carla Espinosa"
        },
        "organization": {
            "reference": "Organization/f201",
            "display": "AUMC"
        },
        "code": [{
            "coding": [{
                "system": "http://snomed.info/sct",
                "code": "224565004",
                "display": "Renal nurse"
            }
        ]
    }
],
    "specialty": [{
        "coding": [{
            "system": "http://snomed.info/sct",
            "code": "9632001",
            "display": "Nursing procedure"
        }
    ]
},
    "endpoint": [{
        "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
    }
],
    "search": {
        "mode": "match"
    }
}, {
    "fullUrl": "https://<datahub_server>/Practitioner/4546487987",
    "resource": {
        "resourceType": "Practitioner",
        "id": "4546487987",
        "meta": {
            "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
        },
        "text": {
            "status": "generated",
            "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"\><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<

```

```

/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
      "system": "http://hl7.org.fhir/sid/us-npi",
      "value": "9941339108"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }
  ],
  "name": [{
    "family": "John",
    "given": ["Ronald"],
    "prefix": ["Dr"]
  }
  ],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
  ],
  "search": {
    "mode": "include"
  }
}, {
  "fullUrl": "https://<datahub_server>/Endpoint/555666",
  "resource": {
    "resourceType": "Endpoint",
    "id": "555666",
    "meta": {
      "lastUpdated": "2020-07-07T13:26:22.0314215+00:00",
      "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
    },
    "language": "en-US",
    "text": {
      "status": "extensions",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\"><p><b>Generated Narrative</b><
/p><h3>Ids</h3><table class=\\"grid\\"><tr><td>-</td></tr><tr><td>*</td></tr></table><h3>Meta</h3><table
class=\\"grid\\"><tr><td>-</td></tr><tr><td>*</td></tr></table><p><b>language</b>: en-US<
/p><blockquote><p><b>Endpoint Usecase</b></p><h3>Urls</h3><table class=\\"grid\\"><tr><td>-</td><
/tr><tr><td>*</td></tr></table><p><b>value</b>: <span title=\\"Codes: {http://terminology.hl7.org/CodeSystem
/v3-ActReason HOPERAT}\\">healthcare operations</span></p></blockquote><p><b>status</b>: active<
/p><p><b>connectionType</b>: <span title=\\"{http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/EndpointConnectionTypeCS rest-non-fhir}\\">REST (not FHIR)</span></p><p><b>name</b>: Endpoint for Acme of
CT Portal</p><p><b>payloadType</b>: <span title=\\"Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net
/CodeSystem/EndpointPayloadTypeCS NA}\\">Not Applicable</span></p><p><b>address</b>: <a href=\\"
https://urlofportal.acmect.com\">https://urlofportal.acmect.com</a></p></div>"
    },
    "extension": [{
      "url": "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/endpoint-
usecase",
      "extension": [{
        "url": "type",
        "valueCodeableConcept": {
          "coding": [{
            "system": "http://terminology.hl7.org/CodeSystem/v3-ActReason",
            "code": "HOPERAT"
          }
          ]
        }
      ]
    }
  ]
}, {
  "identifier": [{
    "system": "http://www.acme.com/identifiers/patient",

```

```

        "value": "123456"
      }, {
        "system": "Tz-MDM",
        "value": "AAAA-0124-8"
      }
    ],
    "status": "active",
    "connectionType": {
      "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/EndpointConnectionTypeCS",
      "code": "rest-non-fhir"
    },
    "name": "Endpoint for Acme of CT Portal",
    "payloadType": [{
      "coding": [{
        "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/EndpointPayloadTypeCS",
        "code": "NA"
      }
    ]
  }
],
"address": "https://urlportal.acmect.com"
},
"search": {
  "mode": "include"
}
}, {
  "fullUrl": "https://<datahub_server>/Endpoint/777888",
  "resource": {
    "resourceType": "Endpoint",
    "id": "777888",
    "meta": {
      "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\tHealth Intersections
CarePlan Hub<br/>\n\t\t\tCarePlans can be uploaded to/from this loccation\n\t\t</div>"
    },
    "identifier": [{
      "system": "http://example.org/enpoint-identifier",
      "value": "epcpl2"
    }
  ],
  "status": "active",
  "connectionType": {
    "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
    "code": "hl7-fhir-rest"
  },
  "name": "Health Intersections CarePlan Hub",
  "managingOrganization": {
    "reference": "Organization/example"
  },
  "contact": [{
    "system": "email",
    "value": "endpointm2@example.org",
    "use": "work"
  }
],
  "period": {
    "start": "2014-09-01"
  },
  "payloadType": [{
    "coding": [{
      "system": "http://hl7.org/fhir/resource-types",
      "code": "CarePlan"
    }
  ]
}
],
],

```

```

    "payloadMimeType": ["application/fhir+xml"],
    "address": "http://fhir3.healthintersections.com.au/open/CarePlan",
    "header": ["bearer-code BASGS534s4"]
  },
  "search": {
    "mode": "include"
  }
}, {
  "fullUrl": "https://<datahub_server>/Practitioner/45345345",
  "resource": {
    "resourceType": "Practitioner",
    "id": "45345345",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 5454545646, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
      "system": "http://hl7.org.fhir/sid/us-npi",
      "value": "5454545646"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }
  ],
  "name": [{
    "family": "James",
    "given": ["Gordon"],
    "prefix": ["Dr"]
  }
  ],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
  ],
  "search": {
    "mode": "include"
  }
}, {
  "fullUrl": "Endpoint/urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d",
  "resource": {
    "resourceType": "Endpoint",
    "id": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d",
    "meta": {
      "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\tHealth Intersections
CarePlan Hub<br/>\n\t\t\tCarePlans can be uploaded to/from this loccation\n\t\t</div>"
    },
    "identifier": [{
      "system": "http://example.org/enpoint-identifier",
      "value": "epcp12"
    }
  ],
  "status": "active",
  "connectionType": {
    "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
    "code": "hl7-fhir-rest"
  }
},

```

```

    "name": "Health Intersections CarePlan Hub",
    "managingOrganization": {
      "reference": "Organization/example2"
    },
    "contact": [{
      "system": "email",
      "value": "endpointm2@example.org",
      "use": "work"
    }
  ],
  "period": {
    "start": "2014-09-01"
  },
  "payloadType": [{
    "coding": [{
      "system": "http://hl7.org/fhir/resource-types",
      "code": "CarePlan"
    }
  ]
},
"payloadMimeType": ["application/fhir+xml"],
"address": "http://fhir3.healthintersections.com.au/open/CarePlan",
"header": ["bearer-code BASGS534s4"]
},
"search": {
  "mode": "include"
}
}
]
}

```

## US Core

```

[base] / PractitionerRole ? specialty = [system] | [value] & _include = PractitionerRole : practitioner &
_include = PractitionerRole : endpoint

GET /PractitionerRole?specialty=http://snomed.info/sct|9632001&_include=PractitionerRole:
practitioner&_include=PractitionerRole:endpoint

{
  "resourceType": "Bundle",
  "id": "89f411d0-81b9-45e8-8f1d-a5f85835660d",
  "meta": {
    "lastUpdated": "2021-01-25T17:14:05.592+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_include=PractitionerRole%
3Apractitioner&_include=PractitionerRole%3Aendpoint&specialty=9632001"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=3ac5ba18-bc57-53ba-b314-
7f8440ffd3f6&_getpagesoffset=2&_count=2&_pretty=true&_include=PractitionerRole%
3Aendpoint&_include=PractitionerRole%3Apractitioner&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/4546487987",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "4546487987",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"]
      },
      "text": {

```

```

        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\tDr Adam
Careful is a Referring Practitioner for Acme Hospital from 1-Jan 2012 to 31-Mar\n\t\t\t\t2012\n\t\t\t\t</p>\n\t\t\t</div>"
    },
    "identifier": [{
        "system": "http://www.acme.org/practitioners",
        "value": "23"
    }
],
    "active": true,
    "period": {
        "start": "2012-01-01",
        "end": "2012-03-31"
    },
    "practitioner": {
        "reference": "Practitioner/4546487987",
        "display": "Dr Adam Careful"
    },
    "organization": {
        "reference": "Organization/f001"
    },
    "code": [{
        "coding": [{
            "system": "http://hl7.org/fhir/v2/0286",
            "code": "RP"
        }
    ]
    },
    "specialty": [{
        "coding": [{
            "system": "http://snomed.info/sct",
            "code": "9632001",
            "display": "General medical practice"
        }
    ]
    },
    "location": [{
        "reference": "Location/1",
        "display": "South Wing, second floor"
    }
],
    "healthcareService": [{
        "reference": "HealthcareService/example"
    }
],
    "telecom": [{
        "system": "phone",
        "value": "(03) 5555 6473",
        "use": "work"
    }, {
        "system": "email",
        "value": "adam.southern@example.org",
        "use": "work"
    }
],
    "availableTime": [{
        "daysOfWeek": ["mon", "tue", "wed"],
        "availableStartTime": "09:00:00",
        "availableEndTime": "16:30:00"
    }, {
        "daysOfWeek": ["thu", "fri"],
        "availableStartTime": "09:00:00",
        "availableEndTime": "12:00:00"
    }
],
    "notAvailable": [{
        "description": "Adam will be on extended leave during May 2017",
        "during": {

```

```

        "start": "2017-05-01",
        "end": "2017-05-20"
      }
    ],
    "availabilityExceptions": "Adam is generally unavailable on public holidays and during the
Christmas/New Year break",
    "endpoint": [{
      "reference": "Endpoint/555666"
    }, {
      "reference": "Endpoint/777888"
    }
  ]
},
"search": {
  "mode": "match"
}
}, {
  "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
  "resource": {
    "resourceType": "PractitionerRole",
    "id": "45345345",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\" \>\n          <span style=\"color:
gray;\">practitioner:</span> Carla Espinosa<br/><span style=\"color: gray;\">organization:</span> AUMC<br
/><span style=\"color: gray;\">role:</span> Renal nurse\n          </div>"
    },
    "practitioner": {
      "reference": "Practitioner/45345345",
      "display": "Carla Espinosa"
    },
    "organization": {
      "reference": "Organization/f201",
      "display": "AUMC"
    },
    "code": [{
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "224565004",
        "display": "Renal nurse"
      }
    ]
  }
],
"specialty": [{
  "coding": [{
    "system": "http://snomed.info/sct",
    "code": "9632001",
    "display": "Nursing procedure"
  }
]
},
"endpoint": [{
  "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
}
],
"search": {
  "mode": "match"
}
}, {
  "fullUrl": "https://<datahub_server>/Practitioner/4546487987",
  "resource": {
    "resourceType": "Practitioner",
    "id": "4546487987",
    "meta": {

```



```

        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
    },
    "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
        "system": "http://hl7.org.fhir/sid/us-npi",
        "value": "9941339108"
    }, {
        "system": "http://www.acme.org/practitioners",
        "value": "25456"
    }
    ],
    "name": [{
        "family": "John",
        "given": ["Ronald"],
        "prefix": ["Dr"]
    }
    ],
    "address": [{
        "use": "home",
        "line": ["1003 Healthcare Drive"],
        "city": "Amherst",
        "state": "MA",
        "postalCode": "01002"
    }
    ],
    "search": {
        "mode": "include"
    }
}, {
    "fullUrl": "https://<datahub_server>/Endpoint/555666",
    "resource": {
        "resourceType": "Endpoint",
        "id": "555666",
        "meta": {
            "lastUpdated": "2020-07-07T13:26:22.0314215+00:00",
            "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
        },
        "language": "en-US",
        "text": {
            "status": "extensions",
            "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative</b><
/p><h3>Ids</h3><table class=\"grid\"><tr><td>-</td></tr><tr><td>*</td></tr></table><h3>Meta</h3><table
class=\"grid\"><tr><td>-</td></tr><tr><td>*</td></tr></table><p><b>language</b>: en-US<
/p><blockquote><p><b>Endpoint Usecase</b></p><h3>Urls</h3><table class=\"grid\"><tr><td>-</td><
/tr><tr><td>*</td></tr></table><p><b>value</b>: <span title=\"Codes: {http://terminology.hl7.org/CodeSystem
/v3-ActReason HOPERAT}"\>healthcare operations</span></p></blockquote><p><b>status</b>: active<
/p><p><b>connectionType</b>: <span title=\"{http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/EndpointConnectionTypeCS rest-non-fhir}"\>REST (not FHIR)</span></p><p><b>name</b>: Endpoint for Acme of
CT Portal</p><p><b>payloadType</b>: <span title=\"Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net
/CodeSystem/EndpointPayloadTypeCS NA}"\>Not Applicable</span></p><p><b>address</b>: <a href=\"
https://urlportal.acmect.com\">https://urlportal.acmect.com</a></p></div>"
        },
        "extension": [{
            "url": "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/endpoint-
usecase",
            "extension": [{
                "url": "type",
                "valueCodeableConcept": {
                    "coding": [{
                        "system": "http://terminology.hl7.org/CodeSystem/v3-ActReason",
                        "code": "HOPERAT"
                    }
                    ]
                }
            }
        ]
    }
    ]
}

```

```

    }
  ]
},
"identifier": [{
  "system": "http://www.acme.com/identifiers/patient",
  "value": "123456"
}, {
  "system": "Tz-MDM",
  "value": "AAAA-0124-8"
}
],
"status": "active",
"connectionType": {
  "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/EndpointConnectionTypeCS",
  "code": "rest-non-fhir"
},
"name": "Endpoint for Acme of CT Portal",
"payloadType": [{
  "coding": [{
    "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/EndpointPayloadTypeCS",
    "code": "NA"
  }
]
}],
"address": "https://urlportal.acmect.com"
},
"search": {
  "mode": "include"
}
}, {
  "fullUrl": "https://<datahub_server>/Endpoint/777888",
  "resource": {
    "resourceType": "Endpoint",
    "id": "777888",
    "meta": {
      "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\tHealth Intersections
CarePlan Hub<br/>\n\t\t\tCarePlans can be uploaded to/from this loccation\n\t\t</div>"
    },
    "identifier": [{
      "system": "http://example.org/enpoint-identifier",
      "value": "epcpl2"
    }
  ],
  "status": "active",
  "connectionType": {
    "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
    "code": "hl7-fhir-rest"
  },
  "name": "Health Intersections CarePlan Hub",
  "managingOrganization": {
    "reference": "Organization/example"
  },
  "contact": [{
    "system": "email",
    "value": "endpointm2@example.org",
    "use": "work"
  }
  ],
  "period": {
    "start": "2014-09-01"
  },
  "payloadType": [{
    "coding": [{

```

```

        "system": "http://hl7.org/fhir/resource-types",
        "code": "CarePlan"
      }
    ]
  },
  "payloadMimeType": ["application/fhir+xml"],
  "address": "http://fhir3.healthintersections.com.au/open/CarePlan",
  "header": ["bearer-code BASGS534s4"]
},
"search": {
  "mode": "include"
}, {
  "fullUrl": "https://<datahub_server>/Practitioner/45345345",
  "resource": {
    "resourceType": "Practitioner",
    "id": "45345345",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 5454545646, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
      "system": "http://hl7.org.fhir/sid/us-npi",
      "value": "5454545646"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }
  ],
  "name": [{
    "family": "James",
    "given": ["Gordon"],
    "prefix": ["Dr"]
  }
  ],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
  ],
  "search": {
    "mode": "include"
  }, {
    "fullUrl": "Endpoint/urn:uuid:04121321-4af5-424c-a0e1-ed3aabc349d",
    "resource": {
      "resourceType": "Endpoint",
      "id": "urn:uuid:04121321-4af5-424c-a0e1-ed3aabc349d",
      "meta": {
        "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\tHealth Intersections
CarePlan Hub<br/>\n\t\t\tCarePlans can be uploaded to/from this loccation\n\t\t</div>"
      },
      "identifier": [{
        "system": "http://example.org/enpoint-identifier",
        "value": "epcpl2"
      }
    ]
  }
}

```

```

    ],
    "status": "active",
    "connectionType": {
      "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
      "code": "hl7-fhir-rest"
    },
    },
    "name": "Health Intersections CarePlan Hub",
    "managingOrganization": {
      "reference": "Organization/example2"
    },
    },
    "contact": [{
      "system": "email",
      "value": "endpointm2@example.org",
      "use": "work"
    }
  ],
  "period": {
    "start": "2014-09-01"
  },
  "payloadType": [{
    "coding": [{
      "system": "http://hl7.org/fhir/resource-types",
      "code": "CarePlan"
    }
  ]
  }
  ],
  "payloadMimeType": ["application/fhir+xml"],
  "address": "http://fhir3.healthintersections.com.au/open/CarePlan",
  "header": ["bearer-code BASGS534s4"]
},
"search": {
  "mode": "include"
}
}
]
}

```

## DaVinci PDEX Plan Net

```

[base] / PractitionerRole ? specialty = [system] | [value] & _include = PractitionerRole : practitioner &
_include = PractitionerRole : endpoint

GET /PractitionerRole?specialty=9632001&_include=PractitionerRole:practitioner&_include=PractitionerRole:
endpoint&_profile=http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-PractitionerRole

{
  "resourceType": "Bundle",
  "id": "fbda4ae8-d828-43fe-809d-93666a9ad96f",
  "meta": {
    "lastUpdated": "2021-01-25T17:42:01.798+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_include=PractitionerRole%
3Apractitioner&_include=PractitionerRole%3Aendpoint&_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-
pdex-plan-net%2FStructureDefinition%2Fplannet-PractitionerRole&specialty=9632001"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=b941e474-8758-5adf-9010-
2b54007271eb&_getpagesoffset=2&_count=2&_pretty=true&_include=PractitionerRole%
3Aendpoint&_include=PractitionerRole%3Apractitioner&_bundletype=searchset"
  }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/4546487987",

```

```

    "resource": {
      "resourceType": "PractitionerRole",
      "id": "4546487987",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-PractitionerRole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\tDr Adam Careful is a Referring Practitioner for Acme Hospital from 1-Jan 2012 to 31-Mar\n\t\t\t\t\t2012\n\t\t\t\t</p>\n\t\t\t</div>"
      },
      "identifier": [{
        "system": "http://www.acme.org/practitioners",
        "value": "23"
      }],
      "active": true,
      "period": {
        "start": "2012-01-01",
        "end": "2012-03-31"
      },
      "practitioner": {
        "reference": "Practitioner/4546487987",
        "display": "Dr Adam Careful"
      },
      "organization": {
        "reference": "Organization/f001"
      },
      "code": [{
        "coding": [{
          "system": "http://hl7.org/fhir/v2/0286",
          "code": "RP"
        }]
      }],
      "specialty": [{
        "coding": [{
          "system": "http://snomed.info/sct",
          "code": "9632001",
          "display": "General medical practice"
        }]
      }],
      "location": [{
        "reference": "Location/1",
        "display": "South Wing, second floor"
      }],
      "healthcareService": [{
        "reference": "HealthcareService/example"
      }],
      "telecom": [{
        "system": "phone",
        "value": "(03) 5555 6473",
        "use": "work"
      }, {
        "system": "email",
        "value": "adam.southern@example.org",
        "use": "work"
      }],
      "availableTime": [{
        "daysOfWeek": ["mon", "tue", "wed"],
        "availableStartTime": "09:00:00",
        "availableEndTime": "16:30:00"
      }], {

```

```

        "daysOfWeek": ["thu", "fri"],
        "availableStartTime": "09:00:00",
        "availableEndTime": "12:00:00"
      }
    ],
    "notAvailable": [{
      "description": "Adam will be on extended leave during May 2017",
      "during": {
        "start": "2017-05-01",
        "end": "2017-05-20"
      }
    }
  ],
  "availabilityExceptions": "Adam is generally unavailable on public holidays and during the
Christmas/New Year break",
  "endpoint": [{
    "reference": "Endpoint/555666"
  }, {
    "reference": "Endpoint/777888"
  }
],
"search": {
  "mode": "match"
}, {
  "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
  "resource": {
    "resourceType": "PractitionerRole",
    "id": "45345345",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
PractitionerRole"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"\>\n          <span style=\"color:
gray;\">practitioner:</span> Carla Espinosa<br/><span style=\"color: gray;\">organization:</span> AUMC<br
/><span style=\"color: gray;\">role:</span> Renal nurse\n          </div>"
    },
    "practitioner": {
      "reference": "Practitioner/45345345",
      "display": "Carla Espinosa"
    },
    "organization": {
      "reference": "Organization/f201",
      "display": "AUMC"
    },
    "code": [{
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "224565004",
        "display": "Renal nurse"
      }
    ]
  }
],
"specialty": [{
  "coding": [{
    "system": "http://snomed.info/sct",
    "code": "9632001",
    "display": "Nursing procedure"
  }
]
},
"endpoint": [{
  "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
}
],
},

```

```

    "search": {
      "mode": "match"
    }, {
      "fullUrl": "https://<datahub_server>/Practitioner/4546487987",
      "resource": {
        "resourceType": "Practitioner",
        "id": "4546487987",
        "meta": {
          "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns='http://www.w3.org/1999/xhtml'><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
        },
        "identifier": [{
          "system": "http://hl7.org.fhir/sid/us-npi",
          "value": "9941339108"
        }, {
          "system": "http://www.acme.org/practitioners",
          "value": "25456"
        }
      ],
      "name": [{
        "family": "John",
        "given": ["Ronald"],
        "prefix": ["Dr"]
      }
    ],
    "address": [{
      "use": "home",
      "line": ["1003 Healthcare Drive"],
      "city": "Amherst",
      "state": "MA",
      "postalCode": "01002"
    }
  ],
  "search": {
    "mode": "include"
  }, {
    "fullUrl": "https://<datahub_server>/Endpoint/555666",
    "resource": {
      "resourceType": "Endpoint",
      "id": "555666",
      "meta": {
        "lastUpdated": "2020-07-07T13:26:22.0314215+00:00",
        "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
      },
      "language": "en-US",
      "text": {
        "status": "extensions",
        "div": "<div xmlns='http://www.w3.org/1999/xhtml'><p><b>Generated Narrative</b><
/p><h3>Ids</h3><table class='grid'><tr><td></td></tr><tr><td>*</td></tr></table><h3>Meta</h3><table
class='grid'><tr><td></td></tr><tr><td>*</td></tr></table><p><b>language</b>: en-US<
/p><blockquote><p><b>Endpoint Usecase</b></p><h3>Urls</h3><table class='grid'><tr><td></td><
/tr><tr><td>*</td></tr></table><p><b>value</b>: <span title='Codes: {http://terminology.hl7.org/CodeSystem
/v3-ActReason HOPERAT}'>healthcare operations</span></p></blockquote><p><b>status</b>: active<
/p><p><b>connectionType</b>: <span title='http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/EndpointConnectionTypeCS rest-non-fhir'>REST (not FHIR)</span></p><p><b>name</b>: Endpoint for Acme of
CT Portal</p><p><b>payloadType</b>: <span title='Codes: {http://hl7.org/fhir/us/davinci-pdex-plan-net
/CodeSystem/EndpointPayloadTypeCS NA}'>Not Applicable</span></p><p><b>address</b>: <a href='
https://urlofportal.acmect.com'>https://urlofportal.acmect.com</a></p></div>"
      },
      "extension": [{
        "url": "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/endpoint-
usecase",

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        "extension": [{
            "url": "type",
            "valueCodeableConcept": {
                "coding": [{
                    "system": "http://terminology.hl7.org/CodeSystem/v3-ActReason",
                    "code": "HOPERAT"
                }]
            }
        }]
    },
    "identifier": [{
        "system": "http://www.acme.com/identifiers/patient",
        "value": "123456"
    }, {
        "system": "Tz-MDM",
        "value": "AAAA-0124-8"
    }
    ],
    "status": "active",
    "connectionType": {
        "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/EndpointConnectionTypeCS",
        "code": "rest-non-fhir"
    },
    "name": "Endpoint for Acme of CT Portal",
    "payloadType": [{
        "coding": [{
            "system": "http://hl7.org/fhir/us/davinci-pdex-plan-net/CodeSystem
/EndpointPayloadTypeCS",
            "code": "NA"
        }]
    }
    ],
    "address": "https://urlofportal.acmect.com"
},
"search": {
    "mode": "include"
}
}, {
    "fullUrl": "https://<datahub_server>/Endpoint/777888",
    "resource": {
        "resourceType": "Endpoint",
        "id": "777888",
        "meta": {
            "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
        },
        "text": {
            "status": "generated",
            "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">\n\t\t\tHealth Intersections
CarePlan Hub<br/>\n\t\t\tCarePlans can be uploaded to/from this loccation\n\t\t\t</div>"
        },
        "identifier": [{
            "system": "http://example.org/enpoint-identifier",
            "value": "epcpl2"
        }
    ],
    "status": "active",
    "connectionType": {
        "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
        "code": "hl7-fhir-rest"
    },
    "name": "Health Intersections CarePlan Hub",
    "managingOrganization": {
        "reference": "Organization/example"
    },
    "contact": [{
        "system": "email",

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```

        "value": "endpointm2@example.org",
        "use": "work"
    },
    ],
    "period": {
        "start": "2014-09-01"
    },
    "payloadType": [{
        "coding": [{
            "system": "http://hl7.org/fhir/resource-types",
            "code": "CarePlan"
        }
        ]
    }
    ],
    "payloadMimeType": ["application/fhir+xml"],
    "address": "http://fhir3.healthintersections.com.au/open/CarePlan",
    "header": ["bearer-code BASGS534s4"]
},
"search": {
    "mode": "include"
}
}, {
    "fullUrl": "https://<datahub_server>/Practitioner/45345345",
    "resource": {
        "resourceType": "Practitioner",
        "id": "45345345",
        "meta": {
            "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
        },
        "text": {
            "status": "generated",
            "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 5454545646, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
        },
        "identifier": [{
            "system": "http://hl7.org.fhir/sid/us-npi",
            "value": "5454545646"
        }
        ], {
            "system": "http://www.acme.org/practitioners",
            "value": "25456"
        }
    ],
    "name": [{
        "family": "James",
        "given": ["Gordon"],
        "prefix": ["Dr"]
    }
    ],
    "address": [{
        "use": "home",
        "line": ["1003 Healthcare Drive"],
        "city": "Amherst",
        "state": "MA",
        "postalCode": "01002"
    }
    ],
    "search": {
        "mode": "include"
    }
}, {
    "fullUrl": "Endpoint/urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d",
    "resource": {
        "resourceType": "Endpoint",
        "id": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d",
        "meta": {
            "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
        },
    },

```

```

    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\t\tHealth Intersections
CarePlan Hub<br/>\n\t\t\tCarePlans can be uploaded to/from this loccation\n\t\t</div>"
    },
    "identifier": [{
      "system": "http://example.org/endpoint-identifier",
      "value": "epcpl2"
    }
  ],
  "status": "active",
  "connectionType": {
    "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
    "code": "hl7-fhir-rest"
  },
  "name": "Health Intersections CarePlan Hub",
  "managingOrganization": {
    "reference": "Organization/example2"
  },
  "contact": [{
    "system": "email",
    "value": "endpointm2@example.org",
    "use": "work"
  }
],
"period": {
  "start": "2014-09-01"
},
"payloadType": [{
  "coding": [{
    "system": "http://hl7.org/fhir/resource-types",
    "code": "CarePlan"
  }
]
}
],
"payloadMimeType": ["application/fhir+xml"],
"address": "http://fhir3.healthintersections.com.au/open/CarePlan",
"header": ["bearer-code BASGS534s4"]
},
"search": {
  "mode": "include"
}
}
]
}

```

**[base]/PractitionerRole?practitioner.identifier=[system]][value]**

CARIN BB

```
[base] / PractitionerRole ? practitioner.identifier = [system] | [value]

GET /PractitionerRole?practitioner.identifier=5454545646&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-practitionerrole

{
  "resourceType": "Bundle",
  "id": "5b3ac83c-9af0-4a47-933b-a795a8f37f16",
  "meta": {
    "lastUpdated": "2021-01-25T17:38:06.040+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcarin%2FStructureDefinition%2Fcarin-bb-practitionerrole&practitioner.identifier=5454545646"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "45345345",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": " <div xmlns=\\"http://www.w3.org/1999/xhtml\\">\n          <span style=\\"color: gray;\\">practitioner:</span> Carla Espinosa<br/><span style=\\"color: gray;\\">organization:</span> AUMC<br /><span style=\\"color: gray;\\">role:</span> Renal nurse\n        </div>"
      },
      "practitioner": {
        "reference": "Practitioner/45345345",
        "display": "Carla Espinosa"
      },
      "organization": {
        "reference": "Organization/f201",
        "display": "AUMC"
      },
      "code": [{
        "coding": [{
          "system": "http://snomed.info/sct",
          "code": "224565004",
          "display": "Renal nurse"
        }
        ]
      }
    ]
  },
  "specialty": [{
    "coding": [{
      "system": "http://snomed.info/sct",
      "code": "9632001",
      "display": "Nursing procedure"
    }
    ]
  }
],
  "endpoint": [{
    "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
  }
]
}
]
}
```

## US Core

```
[base] / PractitionerRole ? practitioner.identifier = [system] | [value]

GET /PractitionerRole?practitioner.identifier=5454545646

{
  "resourceType": "Bundle",
  "id": "3cc8ab27-7455-4782-979a-cc3a27d5c0f3",
  "meta": {
    "lastUpdated": "2021-01-25T17:20:52.150+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?practitioner.identifier=5454545646"
  }],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "45345345",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns='http://www.w3.org/1999/xhtml'>\n                <span style='color: gray;'>practitioner:</span> Carla Espinosa<br/><span style='color: gray;'>organization:</span> AUMC<br /><span style='color: gray;'>role:</span> Renal nurse\n            </div>"
      },
      "practitioner": {
        "reference": "Practitioner/45345345",
        "display": "Carla Espinosa"
      },
      "organization": {
        "reference": "Organization/f201",
        "display": "AUMC"
      },
      "code": [{
        "coding": [{
          "system": "http://snomed.info/sct",
          "code": "224565004",
          "display": "Renal nurse"
        }]
      }],
      "specialty": [{
        "coding": [{
          "system": "http://snomed.info/sct",
          "code": "9632001",
          "display": "Nursing procedure"
        }]
      }],
      "endpoint": [{
        "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
      }]
    }
  ]
}
```

# DaVinci PDEX Plan Net

```
[base] / PractitionerRole ? practitioner.identifier = [system] | [value]

GET /PractitionerRole?practitioner.identifier=5454545646&_profile=http://hl7.org/fhir/us/davinci-pdex-
plan-net/StructureDefinition/plannet-PractitionerRole

{
  "resourceType": "Bundle",
  "id": "cc9d69ab-3609-4a13-ab9e-74df2ae6fb79",
  "meta": {
    "lastUpdated": "2021-01-25T17:41:59.789+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-PractitionerRole&practitioner.identifier=5454545646"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "45345345",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
PractitionerRole"]
      },
      "text": {
        "status": "generated",
        "div": " <div xmlns=\\"http://www.w3.org/1999/xhtml\\">\n                <span style=\\"color:
gray;\\">practitioner:</span> Carla Espinosa<br/><span style=\\"color: gray;\\">organization:</span> AUMC<br
/><span style=\\"color: gray;\\">role:</span> Renal nurse\n                </div>"
      },
      "practitioner": {
        "reference": "Practitioner/45345345",
        "display": "Carla Espinosa"
      },
      "organization": {
        "reference": "Organization/f201",
        "display": "AUMC"
      },
      "code": [{
        "coding": [{
          "system": "http://snomed.info/sct",
          "code": "224565004",
          "display": "Renal nurse"
        }
        ]
      }
    ],
    "specialty": [{
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "9632001",
        "display": "Nursing procedure"
      }
      ]
    }
  ],
  "endpoint": [{
    "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
  }
]
}
]
}
```

**[base]/PractitionerRole?practitioner.identifier=[system][value]&\_include=PractitionerRole:practitioner&\_include=PractitionerRole:endpoint**

**CARIN BB**

```
[base] / PractitionerRole ? practitioner.identifier = [system] | [value] & _include = PractitionerRole :
practitioner & _include = PractitionerRole: endpoint

GET /PractitionerRole?practitioner.identifier=5454545646&_include=PractitionerRole:
practitioner&_include=PractitionerRole:endpoint&_profile=http://hl7.org/fhir/us/carin/StructureDefinition
/carin-bb-practitionerrole

{
  "resourceType": "Bundle",
  "id": "68447ac8-c8c0-431c-b5d9-cca132caf0b1",
  "meta": {
    "lastUpdated": "2021-01-25T17:39:00.455+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_include=PractitionerRole%
3Apractitioner&_include=PractitionerRole%3Aendpoint&_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcarin%
2FStructureDefinition%2Fcarin-bb-practitionerrole&practitioner.identifier=5454545646"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "45345345",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-
practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n          <span style=\"color:
gray;\">practitioner:</span> Carla Espinosa<br/><span style=\"color: gray;\">organization:</span> AUMC<br
/><span style=\"color: gray;\">role:</span> Renal nurse\n          </div>"
      },
      "practitioner": {
        "reference": "Practitioner/45345345",
        "display": "Carla Espinosa"
      },
      "organization": {
        "reference": "Organization/f201",
        "display": "AUMC"
      },
      "code": [{
        "coding": [{
          "system": "http://snomed.info/sct",
          "code": "224565004",
          "display": "Renal nurse"
        }
        ]
      }
    ],
    "specialty": [{
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "9632001",
        "display": "Nursing procedure"
      }
    ]
  }
}
```

```

    ]
  },
  "endpoint": [
    {
      "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
    }
  ]
}, {
  "fullUrl": "https://<datahub_server>/Practitioner/45345345",
  "resource": {
    "resourceType": "Practitioner",
    "id": "45345345",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 5454545646, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [
      {
        "system": "http://hl7.org.fhir/sid/us-npi",
        "value": "5454545646"
      },
      {
        "system": "http://www.acme.org/practitioners",
        "value": "25456"
      }
    ],
    "name": [
      {
        "family": "James",
        "given": ["Gordon"],
        "prefix": ["Dr"]
      }
    ],
    "address": [
      {
        "use": "home",
        "line": ["1003 Healthcare Drive"],
        "city": "Amherst",
        "state": "MA",
        "postalCode": "01002"
      }
    ]
  },
  "search": {
    "mode": "include"
  }
}, {
  "fullUrl": "Endpoint/urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d",
  "resource": {
    "resourceType": "Endpoint",
    "id": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d",
    "meta": {
      "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\tHealth Intersections
CarePlan Hub<br/>\n\t\t\tCarePlans can be uploaded to/from this loccation\n\t\t</div>"
    },
    "identifier": [
      {
        "system": "http://example.org/enpoint-identifier",
        "value": "epcpl2"
      }
    ],
    "status": "active",
    "connectionType": {
      "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
      "code": "hl7-fhir-rest"
    }
  }
}

```



```

    },
    "name": "Health Intersections CarePlan Hub",
    "managingOrganization": {
      "reference": "Organization/example2"
    },
    "contact": [{
      "system": "email",
      "value": "endpointm2@example.org",
      "use": "work"
    }
  ],
  "period": {
    "start": "2014-09-01"
  },
  "payloadType": [{
    "coding": [{
      "system": "http://hl7.org/fhir/resource-types",
      "code": "CarePlan"
    }
  ]
},
  "payloadMimeType": ["application/fhir+xml"],
  "address": "http://fhir3.healthintersections.com.au/open/CarePlan",
  "header": ["bearer-code BASGS534s4"]
},
"search": {
  "mode": "include"
}
}
]
}

```

## US Core

```

[base] / PractitionerRole ? practitioner.identifier = [system] | [value] & _include = PractitionerRole :
practitioner & _include = PractitionerRole: endpoint

GET /PractitionerRole?practitioner.identifier=5454545646&_include=PractitionerRole:
practitioner&_include=PractitionerRole:endpoint

{
  "resourceType": "Bundle",
  "id": "10affde3-08a1-4628-bfc8-1a66c1402e83",
  "meta": {
    "lastUpdated": "2021-01-25T17:18:50.887+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_include=PractitionerRole%
3Apractitioner&_include=PractitionerRole%3Aendpoint&practitioner.identifier=5454545646"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "45345345",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns='http://www.w3.org/1999/xhtml'\>\n
          <span style='color: gray;'>practitioner:</span> Carla Espinosa<br/><span style='color: gray;'>organization:</span> AUMC<br
        /><span style='color: gray;'>role:</span> Renal nurse\n
          </div>"
      }
    }
  ]
}

```

```

    },
    "practitioner": {
      "reference": "Practitioner/45345345",
      "display": "Carla Espinosa"
    },
    "organization": {
      "reference": "Organization/f201",
      "display": "AUMC"
    },
    "code": [{
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "224565004",
        "display": "Renal nurse"
      }
    ]
  }
],
"specialty": [{
  "coding": [{
    "system": "http://snomed.info/sct",
    "code": "9632001",
    "display": "Nursing procedure"
  }
]
}],
"endpoint": [{
  "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
}
]
}, {
  "fullUrl": "https://<datahub_server>/Practitioner/45345345",
  "resource": {
    "resourceType": "Practitioner",
    "id": "45345345",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 5454545646, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
      "system": "http://hl7.org.fhir/sid/us-npi",
      "value": "5454545646"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }
  ],
  "name": [{
    "family": "James",
    "given": ["Gordon"],
    "prefix": ["Dr"]
  }
],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
]
},
"search": {

```

```

    "mode": "include"
  }, {
    "fullUrl": "Endpoint/urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d",
    "resource": {
      "resourceType": "Endpoint",
      "id": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d",
      "meta": {
        "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">\n\t\t\tHealth Intersections
CarePlan Hub<br/>\n\t\t\tCarePlans can be uploaded to/from this location\n\t\t</div>"
      },
      "identifier": [{
        "system": "http://example.org/enpoint-identifier",
        "value": "epcpl2"
      }
    ],
    "status": "active",
    "connectionType": {
      "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
      "code": "hl7-fhir-rest"
    },
    "name": "Health Intersections CarePlan Hub",
    "managingOrganization": {
      "reference": "Organization/example2"
    },
    "contact": [{
      "system": "email",
      "value": "endpointm2@example.org",
      "use": "work"
    }
  ],
  "period": {
    "start": "2014-09-01"
  },
  "payloadType": [{
    "coding": [{
      "system": "http://hl7.org/fhir/resource-types",
      "code": "CarePlan"
    }
  ]
  },
  "payloadMimeType": ["application/fhir+xml"],
  "address": "http://fhir3.healthintersections.com.au/open/CarePlan",
  "header": ["bearer-code BASGS534s4"]
},
"search": {
  "mode": "include"
}
}
]
}

```

## DaVinci PDEX Plan Net

```

[base] / PractitionerRole ? practitioner.identifier = [system] | [value] & _include = PractitionerRole :
practitioner & _include = PractitionerRole: endpoint

```

```

GET /PractitionerRole?practitioner.identifier=5454545646&_include=PractitionerRole:
practitioner&_include=PractitionerRole:endpoint&_profile=http://hl7.org/fhir/us/davinci-pdex-plan-net
/StructureDefinition/plannet-PractitionerRole

```

```
{
```

```

"resourceType": "Bundle",
"id": "90c12284-d9e0-4e5d-9517-8a59a8588e68",
"meta": {
  "lastUpdated": "2021-01-25T17:42:26.890+00:00"
},
"type": "searchset",
"total": 1,
"link": [{
  "relation": "self",
  "url": "https://<datahub_server>/PractitionerRole?_include=PractitionerRole%
3Apractitioner&_include=PractitionerRole%3Aendpoint&_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-
pdex-plan-net%2FStructureDefinition%2Fplannet-PractitionerRole&practitioner.identifier=5454545646"
}
],
"entry": [{
  "fullUrl": "https://<datahub_server>/PractitionerRole/45345345",
  "resource": {
    "resourceType": "PractitionerRole",
    "id": "45345345",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
PractitionerRole"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\" \>\n          <span style=\"color:
gray;\" \>practitioner:</span> Carla Espinosa<br/><span style=\"color: gray;\" \>organization:</span> AUMC<br
/><span style=\"color: gray;\" \>role:</span> Renal nurse\n          </div>"
    },
    "practitioner": {
      "reference": "Practitioner/45345345",
      "display": "Carla Espinosa"
    },
    "organization": {
      "reference": "Organization/f201",
      "display": "AUMC"
    },
    "code": [{
      "coding": [{
        "system": "http://snomed.info/sct",
        "code": "224565004",
        "display": "Renal nurse"
      }
    ]
  }
},
  "specialty": [{
    "coding": [{
      "system": "http://snomed.info/sct",
      "code": "9632001",
      "display": "Nursing procedure"
    }
  ]
},
  "endpoint": [{
    "reference": "urn:uuid:04121321-4af5-424c-a0e1-ed3aab1c349d"
  ]
},
  {
    "fullUrl": "https://<datahub_server>/Practitioner/45345345",
    "resource": {
      "resourceType": "Practitioner",
      "id": "45345345",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\" \><p><b>Generated Narrative with

```

```

Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 5454545646, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
      "system": "http://hl7.org/fhir/sid/us-npi",
      "value": "5454545646"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }
  ],
  "name": [{
    "family": "James",
    "given": ["Gordon"],
    "prefix": ["Dr"]
  }
  ],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
  ],
  "search": {
    "mode": "include"
  }
}, {
  "fullUrl": "Endpoint/urn:uuid:04121321-4af5-424c-a0e1-ed3aabc349d",
  "resource": {
    "resourceType": "Endpoint",
    "id": "urn:uuid:04121321-4af5-424c-a0e1-ed3aabc349d",
    "meta": {
      "profile": ["http://hl7.org/fhir/StructureDefinition/Endpoint"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n\t\tHealth Intersections
CarePlan Hub<br/>\n\t\tCarePlans can be uploaded to/from this location\n\t\t</div>"
    },
    "identifier": [{
      "system": "http://example.org/enpoint-identifier",
      "value": "epcpl2"
    }
  ],
  "status": "active",
  "connectionType": {
    "system": "http://terminology.hl7.org/CodeSystem/endpoint-connection-type",
    "code": "hl7-fhir-rest"
  },
  "name": "Health Intersections CarePlan Hub",
  "managingOrganization": {
    "reference": "Organization/example2"
  },
  "contact": [{
    "system": "email",
    "value": "endpointm2@example.org",
    "use": "work"
  }
  ],
  "period": {
    "start": "2014-09-01"
  },
  "payloadType": [{
    "coding": [{
      "system": "http://hl7.org/fhir/resource-types",
      "code": "CarePlan"
    }
  ]
}

```

```

    ],
    "payloadMimeType": ["application/fhir+xml"],
    "address": "http://fhir3.healthintersections.com.au/open/CarePlan",
    "header": ["bearer-code BASGS534s4"]
  },
  "search": {
    "mode": "include"
  }
}
]
}

```

## [base]/PractitionerRole?practitioner.name=XXXX

### CARIN BB

```

[base] / PractitionerRole ? practitioner.name = XXXX

GET /PractitionerRole?practitioner.name=Gordon&_profile=http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-practitionerrole

{
  "resourceType": "Bundle",
  "id": "e4cc4b67-d431-483f-81e3-6819b0136531",
  "meta": {
    "lastUpdated": "2021-01-25T17:39:51.113+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fcarin%2FStructureDefinition%2Fcarin-bb-practitionerrole&practitioner.name=Gordon"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=e4cb6ded-78bc-57fa-805e-a36d92d1d772&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
  ],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/5657575-0",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "5657575-0",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"\>\n          <span style=\"color: gray;\">practitioner:</span> Pieter Voigt<br/><span style=\"color: gray;\">organization:</span> BMC<br /><span style=\"color: gray;\">role:</span> Care role\n          </div>"
      },
      "practitioner": {
        "reference": "Practitioner/5657575",
        "display": "James Gordon"
      },
      "organization": {
        "reference": "Organization/f001",
        "display": "BMC"
      },
      "code": [{

```



## US Core

```
[base] / PractitionerRole ? practitioner.name = XXXX

GET /PractitionerRole?practitioner.name=Gordon

{
  "resourceType": "Bundle",
  "id": "ee0e0870-8c75-4757-b350-13f7aa930e2d",
  "meta": {
    "lastUpdated": "2021-01-25T17:21:49.610+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_include=PractitionerRole%3Apractitioner&practitioner.name=Gordon"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=bc503211-93ab-5871-b115-2761489133b1&_getpagesoffset=2&_count=2&_pretty=true&_include=PractitionerRole%3Apractitioner&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/5657575-0",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "5657575-0",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">\n          <span style=\\"color: gray;\\">practitioner:</span> Pieter Voigt<br/><span style=\\"color: gray;\\">organization:</span> BMC<br /><span style=\\"color: gray;\\">role:</span> Care role\n        </div>"
      },
      "practitioner": {
        "reference": "Practitioner/5657575",
        "display": "James Gordon"
      },
      "organization": {
        "reference": "Organization/f001",
        "display": "BMC"
      },
      "code": [{
        "coding": [{
          "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
          "code": "01.000",
          "display": "Arts"
        }
        ],
        "text": "Care role"
      }
    ],
    "specialty": [{
      "coding": [{
        "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
        "code": "01.011",
        "display": "Oncology surgery"
      }
      ],
      "text": "specialization"
    }
  ]
}, {
  "fullUrl": "https://<datahub_server>/PractitionerRole/444444",
```



```

    "resource": {
      "resourceType": "PractitionerRole",
      "id": "4444444",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns='http://www.w3.org/1999/xhtml'>\n                <span style='color: gray;'>practitioner:</span> Pieter Voigt<br/><span style='color: gray;'>organization:</span> BMC<br /><span style='color: gray;'>role:</span> Care role\n                </div>"
      },
      "practitioner": {
        "reference": "Practitioner/5657575",
        "display": "James Gordon"
      },
      "organization": {
        "reference": "Organization/f001",
        "display": "BMC"
      },
      "code": [{
        "coding": [{
          "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
          "code": "01.000",
          "display": "Arts"
        }
        ],
        "text": "Care role"
      }
    ],
    "specialty": [{
      "coding": [{
        "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
        "code": "363LP2300X",
        "display": "Primary Care"
      }
      ],
      "text": "specialization"
    }
  ]
}, {
  "fullUrl": "https://datahub_server/Practitioner/5657575",
  "resource": {
    "resourceType": "Practitioner",
    "id": "5657575",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns='http://www.w3.org/1999/xhtml'><p><b>Generated Narrative with Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456</p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p></div>"
    },
    "identifier": [{
      "system": "http://hl7.org.fhir/sid/us-npi",
      "value": "9941339108"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }
  ],
  "name": [{
    "family": "John",
    "given": ["Gordon"],
    "prefix": ["Dr"]
  }
  ],
  "address": [{

```

```

        "use": "home",
        "line": ["1003 Healthcare Drive"],
        "city": "Amherst",
        "state": "MA",
        "postalCode": "01002"
      }
    ]
  },
  "search": {
    "mode": "include"
  }
}
]
}

```

## DaVinci PDEX Plan Net

```

[base] / PractitionerRole ? practitioner.name = XXXX

GET /PractitionerRole?practitioner.identifier=5454545646&_profile=http://hl7.org/fhir/us/davinci-pdex-
plan-net/StructureDefinition/plannet-PractitionerRole

{
  "resourceType": "Bundle",
  "id": "1bf2cb19-9951-443e-9fb5-0a13aebb2394",
  "meta": {
    "lastUpdated": "2021-01-25T17:42:15.527+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%
2Fdavinci-pdex-plan-net%2FStructureDefinition%2Fplannet-PractitionerRole&practitioner.name=Gordon"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=c91883d3-5a9d-5f51-b2da-
cf126cbb82ff&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/5657575-0",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "5657575-0",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
PractitionerRole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n          <span style=\"color:
gray;\">practitioner:</span> Pieter Voigt<br/><span style=\"color: gray;\">organization:</span> BMC<br
/><span style=\"color: gray;\">role:</span> Care role\n          </div>"
      },
      "practitioner": {
        "reference": "Practitioner/5657575",
        "display": "James Gordon"
      },
      "organization": {
        "reference": "Organization/f001",
        "display": "BMC"
      },
      "code": [{
        "coding": [{
          "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
          "code": "01.000",
          "display": "Arts"
        }
      ]
    }
  }
]
}

```

```

        }
      ],
      "text": "Care role"
    }
  ],
  "specialty": [{
    "coding": [{
      "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
      "code": "01.011",
      "display": "Oncology surgery"
    }
    ],
    "text": "specialization"
  }
  ],
  "fullUrl": "https://<datahub_server>/PractitionerRole/444444",
  "resource": {
    "resourceType": "PractitionerRole",
    "id": "444444",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-PractitionerRole"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n          <span style=\"color: gray;\">practitioner:</span> Pieter Voigt<br/><span style=\"color: gray;\">organization:</span> BMC<br /><span style=\"color: gray;\">role:</span> Care role\n          </div>"
    },
    "practitioner": {
      "reference": "Practitioner/5657575",
      "display": "James Gordon"
    },
    "organization": {
      "reference": "Organization/f001",
      "display": "BMC"
    },
    "code": [{
      "coding": [{
        "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
        "code": "01.000",
        "display": "Arts"
      }
      ],
      "text": "Care role"
    }
  ],
  "specialty": [{
    "coding": [{
      "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
      "code": "363LP2300X",
      "display": "Primary Care"
    }
    ],
    "text": "specialization"
  }
  ],
  }
}

```

**[base]/PractitionerRole?practitioner.name=XXXX?\_include=PractitionerRole:practitioner&\_include=PractitionerRole:endpoint**

## CARIN BB

```
[base] / PractitionerRole ? practitioner.name = XXXX ? _include = PractitionerRole : practitioner &
_include = PractitionerRole : endpoint

GET /PractitionerRole?practitioner.name=Gordon&_include=PractitionerRole:
practitioner&_include=PractitionerRole:endpoint&_profile=http://hl7.org/fhir/us/carin/StructureDefinition
/carin-bb-practitionerrole

{
  "resourceType": "Bundle",
  "id": "df547de2-c38c-4b3b-93c9-fd3bdc8365cb",
  "meta": {
    "lastUpdated": "2021-01-25T17:40:38.704+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_include=PractitionerRole%
3Apractitioner&_include=PractitionerRole%3Aendpoint&_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fcarin%
2FStructureDefinition%2Fcarin-bb-practitionerrole&practitioner.name=Gordon"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=200b2a88-c84b-58e9-8f4f-
92449fe3cfba&_getpagesoffset=2&_count=2&_pretty=true&_include=PractitionerRole%
3Aendpoint&_include=PractitionerRole%3Apractitioner&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/5657575-0",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "5657575-0",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-
practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n          <span style=\"color:
gray;\">practitioner:</span> Pieter Voigt<br/><span style=\"color: gray;\">organization:</span> BMC<br
/><span style=\"color: gray;\">role:</span> Care role\n          </div>"
      },
      "practitioner": {
        "reference": "Practitioner/5657575",
        "display": "James Gordon"
      },
      "organization": {
        "reference": "Organization/f001",
        "display": "BMC"
      },
      "code": [{
        "coding": [{
          "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
          "code": "01.000",
          "display": "Arts"
        }
      ],
      "text": "Care role"
    }
  ],
  "specialty": [{
    "coding": [{
      "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
      "code": "01.011",
      "display": "Oncology surgery"
    }
  ]
}
}
```

```

        ],
        "text": "specialization"
    }
}
], {
  "fullUrl": "https://<datahub_server>/PractitionerRole/444444",
  "resource": {
    "resourceType": "PractitionerRole",
    "id": "444444",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-
practitionerrole"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n          <span style=\"color:
gray;\">practitioner:</span> Pieter Voigt<br/><span style=\"color: gray;\">organization:</span> BMC<br
/><span style=\"color: gray;\">role:</span> Care role\n          </div>"
    },
    "practitioner": {
      "reference": "Practitioner/5657575",
      "display": "James Gordon"
    },
    "organization": {
      "reference": "Organization/f001",
      "display": "BMC"
    },
    "code": [{
      "coding": [{
        "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
        "code": "01.000",
        "display": "Arts"
      }
      ],
      "text": "Care role"
    }
  ],
  "specialty": [{
    "coding": [{
      "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
      "code": "363LP2300X",
      "display": "Primary Care"
    }
    ],
    "text": "specialization"
  }
]
}, {
  "fullUrl": "https://<datahub_server>/Practitioner/5657575",
  "resource": {
    "resourceType": "Practitioner",
    "id": "5657575",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
    },
    "identifier": [{
      "system": "http://hl7.org.fhir/sid/us-npi",
      "value": "9941339108"
    }, {
      "system": "http://www.acme.org/practitioners",
      "value": "25456"
    }
  ]
}

```

```

    ],
    "name": [{
      "family": "John",
      "given": ["Gordon"],
      "prefix": ["Dr"]
    }
  ],
  "address": [{
    "use": "home",
    "line": ["1003 Healthcare Drive"],
    "city": "Amherst",
    "state": "MA",
    "postalCode": "01002"
  }
]
},
"search": {
  "mode": "include"
}
}
]
}

```

## US Core

```

[base] / PractitionerRole ? practitioner.name = XXXX ? _include = PractitionerRole : practitioner &
_include = PractitionerRole : endpoint

GET /PractitionerRole?practitioner.name=Gordon&_include=PractitionerRole:
practitioner&_include=PractitionerRole:endpoint

{
  "resourceType": "Bundle",
  "id": "81994928-3696-4674-a188-cc97d664b0ad",
  "meta": {
    "lastUpdated": "2021-01-25T17:22:33.228+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_include=PractitionerRole%
3Apractitioner&_include=PractitionerRole%3Aendpoint&practitioner.name=Gordon"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=f4cbab25-2724-5b18-86b0-
0dee73fe3e42&_getpagesoffset=2&_count=2&_pretty=true&_include=PractitionerRole%
3Aendpoint&_include=PractitionerRole%3Apractitioner&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/5657575-0",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "5657575-0",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">\n          <span style=\\"color:
gray;\\">practitioner:</span> Pieter Voigt<br/><span style=\\"color: gray;\\">organization:</span> BMC<br
/><span style=\\"color: gray;\\">role:</span> Care role\n          </div>"
      },
      "practitioner": {
        "reference": "Practitioner/5657575",
        "display": "James Gordon"
      }
    }
  ]
}

```

```

    "organization": {
      "reference": "Organization/f001",
      "display": "BMC"
    },
    "code": [{
      "coding": [{
        "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
        "code": "01.000",
        "display": "Arts"
      }
    ],
      "text": "Care role"
    }
  ],
  "specialty": [{
    "coding": [{
      "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
      "code": "01.011",
      "display": "Oncology surgery"
    }
  ],
    "text": "specialization"
  }
]
}, {
  "fullUrl": "https://<datahub_server>/PractitionerRole/444444",
  "resource": {
    "resourceType": "PractitionerRole",
    "id": "444444",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n          <span style=\"color:
gray;\">practitioner:</span> Pieter Voigt<br/><span style=\"color: gray;\">organization:</span> BMC<br
/><span style=\"color: gray;\">role:</span> Care role\n          </div>"
    },
    "practitioner": {
      "reference": "Practitioner/5657575",
      "display": "James Gordon"
    },
    "organization": {
      "reference": "Organization/f001",
      "display": "BMC"
    },
    "code": [{
      "coding": [{
        "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
        "code": "01.000",
        "display": "Arts"
      }
    ],
      "text": "Care role"
    }
  ],
  "specialty": [{
    "coding": [{
      "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
      "code": "363LP2300X",
      "display": "Primary Care"
    }
  ],
    "text": "specialization"
  }
]
}, {
  "fullUrl": "https://<datahub_server>/Practitioner/5657575",
  "resource": {

```

```

        "resourceType": "Practitioner",
        "id": "5657575",
        "meta": {
          "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
        },
        "identifier": [{
          "system": "http://hl7.org.fhir/sid/us-npi",
          "value": "9941339108"
        }, {
          "system": "http://www.acme.org/practitioners",
          "value": "25456"
        }
      ],
        "name": [{
          "family": "John",
          "given": ["Gordon"],
          "prefix": ["Dr"]
        }
      ],
        "address": [{
          "use": "home",
          "line": ["1003 Healthcare Drive"],
          "city": "Amherst",
          "state": "MA",
          "postalCode": "01002"
        }
      ]
    },
    "search": {
      "mode": "include"
    }
  }
]
}

```

## DaVinci PDEX Plan Net

```

[base] / PractitionerRole ? practitioner.name = XXXX ? _include = PractitionerRole : practitioner &
_include = PractitionerRole : endpoint

GET /PractitionerRole?practitioner.name=Gordon&_include=PractitionerRole:
practitioner&_include=PractitionerRole:endpoint&_profile=http://hl7.org/fhir/us/davinci-pdex-plan-net
/StructureDefinition/plannet-PractitionerRole

{
  "resourceType": "Bundle",
  "id": "9c124035-3a73-441f-96f0-ea883b2abc4a",
  "meta": {
    "lastUpdated": "2021-01-25T17:42:18.360+00:00"
  },
  "type": "searchset",
  "total": 3,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/PractitionerRole?_include=PractitionerRole%
3Apractitioner&_include=PractitionerRole%3Aendpoint&_profile=http%3A%2F%2Fhl7.org%2Ffhir%2Fus%2Fdavinci-
pdex-plan-net%2FStructureDefinition%2Fplannet-PractitionerRole&practitioner.name=Gordon"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=e737f8af-8d20-539b-8193-

```



```

190d7e5dc156&_getpagesoffset=2&_count=2&_pretty=true&_include=PractitionerRole%
3Aendpoint&_include=PractitionerRole%3Apractitioner&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/PractitionerRole/5657575-0",
    "resource": {
      "resourceType": "PractitionerRole",
      "id": "5657575-0",
      "meta": {
        "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
PractitionerRole"]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n          <span style=\"color:
gray;\">practitioner:</span> Pieter Voigt<br/><span style=\"color: gray;\">organization:</span> BMC<br
/><span style=\"color: gray;\">role:</span> Care role\n          </div>"
      },
      "practitioner": {
        "reference": "Practitioner/5657575",
        "display": "James Gordon"
      },
      "organization": {
        "reference": "Organization/f001",
        "display": "BMC"
      },
      "code": [{
        "coding": [{
          "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
          "code": "01.000",
          "display": "Arts"
        }
        ],
        "text": "Care role"
      }
    ],
    "specialty": [{
      "coding": [{
        "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
        "code": "01.011",
        "display": "Oncology surgery"
      }
      ],
      "text": "specialization"
    }
  ]
}, {
  "fullUrl": "https://<datahub_server>/PractitionerRole/444444",
  "resource": {
    "resourceType": "PractitionerRole",
    "id": "444444",
    "meta": {
      "profile": ["http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
PractitionerRole"]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n          <span style=\"color:
gray;\">practitioner:</span> Pieter Voigt<br/><span style=\"color: gray;\">organization:</span> BMC<br
/><span style=\"color: gray;\">role:</span> Care role\n          </div>"
    },
    "practitioner": {
      "reference": "Practitioner/5657575",
      "display": "James Gordon"
    },
    "organization": {
      "reference": "Organization/f001",
      "display": "BMC"
    }
  },

```

```

        "code": [{
            "coding": [{
                "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
                "code": "01.000",
                "display": "Arts"
            }
            ],
            "text": "Care role"
        }
    ],
    "specialty": [{
        "coding": [{
            "system": "urn:oid:2.16.840.1.113883.2.4.15.111",
            "code": "363LP2300X",
            "display": "Primary Care"
        }
        ],
        "text": "specialization"
    }
    ]
}, {
    "fullUrl": "https://<datahub_server>/Practitioner/5657575",
    "resource": {
        "resourceType": "Practitioner",
        "id": "5657575",
        "meta": {
            "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner"]
        },
        "text": {
            "status": "generated",
            "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p><b>Generated Narrative with
Details</b></p><p><b>id</b>: practitioner-1</p><p><b>meta</b>: </p><p><b>identifier</b>: 9941339108, 25456<
/p><p><b>name</b>: Ronald Bone </p><p><b>address</b>: 1003 Healthcare Drive Amherst MA 01002 (HOME)</p><
/div>"
        },
        "identifier": [{
            "system": "http://hl7.org.fhir/sid/us-npi",
            "value": "9941339108"
        }
        ], {
            "system": "http://www.acme.org/practitioners",
            "value": "25456"
        }
    ],
    "name": [{
        "family": "John",
        "given": ["Gordon"],
        "prefix": ["Dr"]
    }
    ],
    "address": [{
        "use": "home",
        "line": ["1003 Healthcare Drive"],
        "city": "Amherst",
        "state": "MA",
        "postalCode": "01002"
    }
    ]
},
    "search": {
        "mode": "include"
    }
}
]
}

```

**[base]/PractitionerRole[/id]**

## CARIN BB

```
[base]/PractitionerRole[/id]

GET /PractitionerRole/11222

{
  "resourceType" : "PractitionerRole",
  "id" : "11222",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-08-25T14:23:45.498+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-practitionerrole"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "ccf4c0fc-dc47-4220-bb42-b78ea3a119b1[1]"
      }
    ]
  },
  "text" : {
    "status" : "generated",
    "div" : "<div xmlns='http://www.w3.org/1999/xhtml'>\n\t\t\t<p>\n\t\t\t\tDr Adam Careful is a Referring Practitioner for Acme Hospital from 1-Jan 2012 to 31-Mar\n\t\t\t\t2012\n\t\t\t\t</p>\n\t\t\t</div>"
  },
  "identifier" : [
    {
      "system" : "http://www.acme.org/practitioners",
      "value" : "23"
    }
  ],
  "active" : true,
  "period" : {
    "start" : "2012-01-01",
    "end" : "2012-03-31"
  },
  "practitioner" : {
    "reference" : "Practitioner/10a5b6c0-4e5f-5333-abd9-f877ce690a3e",
    "display" : "Dr Adam Careful"
  },
  "organization" : {
    "reference" : "Organization/f001",
    "type" : "Practitioner"
  },
  "code" : [
    {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/v2-0286",
          "code" : "RP"
        }
      ]
    }
  ],
  "specialty" : [
    {
      "coding" : [
        {
          "system" : "http://snomed.info/sct",
          "code" : "408443003",
          "display" : "General medical practice"
        }
      ]
    }
  ]
}
```

```
    ]
  },
  "location" : [
    {
      "reference" : "Location/1",
      "display" : "South Wing, second floor"
    }
  ],
  "healthcareService" : [
    {
      "reference" : "HealthcareService/HL0001"
    }
  ],
  "telecom" : [
    {
      "system" : "phone",
      "value" : "(03) 5555 6473",
      "use" : "work"
    },
    {
      "system" : "email",
      "value" : "adam.southern@example.org",
      "use" : "work"
    }
  ],
  "availableTime" : [
    {
      "daysOfWeek" : [
        "mon",
        "tue",
        "wed"
      ],
      "availableStartTime" : "09:00:00",
      "availableEndTime" : "16:30:00"
    },
    {
      "daysOfWeek" : [
        "thu",
        "fri"
      ],
      "availableStartTime" : "09:00:00",
      "availableEndTime" : "12:00:00"
    }
  ],
  "notAvailable" : [
    {
      "description" : "Adam will be on extended leave during May 2017",
      "during" : {
        "start" : "2017-05-01",
        "end" : "2017-05-20"
      }
    }
  ],
  "availabilityExceptions" : "Adam is generally unavailable on public holidays and during the Christmas
/New Year break",
  "endpoint" : [
    {
      "reference" : "Endpoint/EP2020Feb02"
    }
  ]
}
```

## US Core

```
[base]/PractitionerRole[/id]

GET /PractitionerRole/PracRoleLoadNew182

{
  "resourceType" : "PractitionerRole",
  "id" : "PracRoleLoadNew182",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-05-09T16:06:47.231+00:00",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole"
    ]
  },
  "practitioner" : {
    "reference" : "Practitioner/Pracp82",
    "identifier" : {
      "system" : "http://www.acme.org/practitioners",
      "value" : "Pracp82"
    },
    "display" : "CarlaEspinosa"
  },
  "organization" : {
    "reference" : "Organization/Orgp01",
    "type" : "Practitioner",
    "display" : "AUMC"
  },
  "code" : [
    {
      "coding" : [
        {
          "system" : "http://snomed.info/sct",
          "code" : "224565004",
          "display" : "Renalnurse"
        }
      ]
    }
  ],
  "specialty" : [
    {
      "coding" : [
        {
          "system" : "http://snomed.info/sct",
          "code" : "9632001",
          "display" : "Nursingprocedure"
        }
      ]
    }
  ],
  "telecom" : [
    {
      "system" : "phone",
      "value" : "333-333-3333",
      "use" : "work"
    },
    {
      "system" : "email",
      "value" : "adam.careful@example.org",
      "use" : "work"
    }
  ]
}
```

## DaVinci PDEX Plan Net

```
[base]/PractitionerRole[/id]
```

```

GET /PractitionerRole/practitionerrole3

{
  "resourceType" : "PractitionerRole",
  "id" : "practitionerrole3",
  "meta" : {
    "profile" : [
      "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-PractitionerRole"
    ]
  },
  "text" : {
    "status" : "generated",
    "div" : "<div xmlns='http://www.w3.org/1999/xhtml'><p><b>Generated Narrative with Details</b></p><p><b>id</b>: practitionerrole1</p><p><b>meta</b>: </p><p><b>identifier</b>: Hospital ID = provider276 (SECONDARY)</p><p><b>active</b>: true</p><p><b>period</b>: Feb 22, 2016, 12:00:00 AM --> (ongoing)</p><p><b>practitioner</b>: <a href='\"Practitioner-practitioner1.html\"'>Geroge Washington. Generated Summary: id: practitioner1; NPI = 1234567893 (OFFICIAL); active; George Washington(OFFICIAL); ph: 202-123-4567(MOBILE), george.washington@whitehouse.gov(HOME); gender: male; birthDate: Feb 22, 1932; <span title='\"Codes: {urn:ietf:bc:47 en-US}\"'>English</span></a></p><p><b>organization</b>: <a href='\"Organization-foundingfathers.html\"'>Founding Fathers Memorial Hospital. Generated Summary: id: foundingfathers; NPI = 1345678910 (OFFICIAL); active; <span title='\"Codes: {http://terminology.hl7.org/CodeSystem/organization-type prov}\"'>Hospital</span>; name: Founding Fathers Memorial Hospital; alias: DC Memorial Hospital; ph: 202-101-0123</a></p><p><b>code</b>: Doctor <span style='\"background: LightGoldenRodYellow\"'>(Details : {http://terminology.hl7.org/CodeSystem/practitioner-role code 'doctor' = 'Doctor', given as 'Doctor'})</span></p><p><b>specialty</b>: Cardiology <span style='\"background: LightGoldenRodYellow\"'>(Details : {SNOMED CT code '394579002' = 'Cardiology (qualifier value)', given as 'Cardiology'})</span></p><p><b>location</b>: <a href='\"Location-loc-ffmh-hvi.html\"'>Founding Fathers Memorial Hospital, Heart and Vascular Institute. Generated Summary: id: loc-ffmh-hvi; main campus (SECONDARY); status: active; name: Founding Fathers Memorial Hospital Heart and Vascular Institute; description: Heart and Vascular Institute Specialty Wing; <span title='\"Codes: {http://terminology.hl7.org/CodeSystem/v3-RoleCode HOSP}\"'>Hospital</span>; ph: 202-101-0123(WORK); <span title='\"Codes: {http://terminology.hl7.org/CodeSystem/location-physical-type si}\"'>Site</span>; availabilityExceptions: visiting hours from 6:00 am - 10:00 pm</a></p><p><b>healthcareService</b>: <a href='\"HealthcareService-ffcardiology.html\"'>Founding Fathers Memorial Hospital cardiac services. Generated Summary: id: ffcardiology; Business ID = service001 (SECONDARY); active; <span title='\"Codes: {http://terminology.hl7.org/CodeSystem/service-category 35}\"'>Hospital</span>; <span title='\"Codes: {http://terminology.hl7.org/CodeSystem/service-type 165}\"'>Cardiology</span>; <span title='\"Codes: {http://snomed.info/sct 394579002}\"'>Cardiology</span>; name: Founding Fathers Memorial Hospital Heart and Vascular Services; comment: Cardiac surgery, heart failure, cardiac electrophysiology, vascular surgery, and cardiovascular research; fax: 555 12345; <span title='\"Codes: {http://terminology.hl7.org/CodeSystem/service-provision-conditions cost}\"'>Fees apply</span>; <span title='\"Codes: {http://terminology.hl7.org/CodeSystem/service-referral-method phone}\"'>phone</span>, <span title='\"Codes: {http://terminology.hl7.org/CodeSystem/service-referral-method fax}\"'>Fax</span>; appointmentRequired; availabilityExceptions: No interventional cardiac procedures are scheduled on Wednesdays</a></p><p><b>telecom</b>: ph: 202-101-0123</p><h3>AvailableTimes</h3><table class='\"grid\"'><tr><td></td><td><b>DaysOfWeek</b></td><td><b>AvailableStartTime</b></td><td><b>AvailableEndTime</b></td></tr><tr><td>*</td><td>mon</td><td></td><td></td></tr></table><p><b>endpoint</b>: <a href='\"Endpoint-direct321.html\"'>Direct address for the Founding Fathers Heart and Vascular Institute. Generated Summary: id: direct321; status: active; <span title='\"{http://terminology.hl7.org/CodeSystem/endpoint-connection-type direct-project}\"'>Direct Project</span>; name: Founding Fathers Memorial Hospital Heart and Vascular Institute Direct address; ph: 202-101-0123(WORK); period: Nov 19, 2014, 12:00:00 AM --> (ongoing); <span title='\"Codes: {urn:oid:1.3.6.1.4.1.19376.1.2.3 urn:ihe:pcc:xphr:2007}\"'>HL7 CCD Document</span>; payloadMimeType: application/hl7-v3+xml; address: mailto:heart@direct.ffhospital.com</a></p></div>"
  },
  "extension" : [
    {
      "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-NewPatients-extension",
      "extension" : [
        {
          "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-AcceptingPatients-extension",
          "valueBoolean" : true
        }
      ]
    },
    {
      "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-FromNetwork-extension",
      "valueReference" : {
        "reference" : "Organization/patriotppo",
        "display" : "Patriot Preferred Provider Network"
      }
    }
  ]
}

```

```

    }
  ]
},
{
  "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-
ParticipatingNetwork-extension",
  "valueReference" : {
    "reference" : "Organization/patriotppo",
    "display" : "Patriot Preferred Provider Network"
  }
},
{
  "url" : "http://hl7.org/fhir/uv/vhdir/StructureDefinition/practitioner-qualification",
  "extension" : [
    {
      "url" : "status",
      "valueCoding" : {
        "system" : "http://hl7.org/fhir/uv/vhdir/CodeSystem/credentialstatus",
        "code" : "active",
        "display" : "Active"
      }
    },
    {
      "url" : "whereValid",
      "valueReference" : {
        "reference" : "Location/loc-ffmh-hvi",
        "display" : "Founding Fathers Memorial Hospital, Heart and Vascular Institute"
      }
    }
  ]
},
{
  "url" : "http://hl7.org/fhir/uv/vhdir/StructureDefinition/newpatientprofile",
  "valueString" : "New patients are accepted via referral from providers participating in Patriot
PPO"
}
],
"identifier" : [
  {
    "extension" : [
      {
        "url" : "http://hl7.org/fhir/uv/vhdir/StructureDefinition/identifier-status",
        "valueCode" : "active"
      }
    ],
    "use" : "secondary",
    "type" : {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/v2-0203",
          "code" : "PRN",
          "display" : "Provider number"
        }
      ]
    },
    "text" : "Hospital ID"
  },
  {
    "system" : "http://example.org/www.foundingfathersmemorial.com",
    "value" : "provider276",
    "period" : {
      "start" : "2016-02-22"
    },
    "assigner" : {
      "reference" : "Organization/Orgingest0123",
      "display" : "Founding Fathers Memorial Hospital"
    }
  }
],
"active" : true,
"period" : {
  "start" : "2016-02-22"
}

```

```

    },
    "practitioner" : {
      "reference" : "Practitioner/Pracp04",
      "display" : "Geroge Washington"
    },
    "organization" : {
      "reference" : "Organization/Orgingest0125",
      "display" : "Founding Fathers Memorial Hospital"
    },
    "code" : [
      {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/practitioner-role",
            "code" : "doctor",
            "display" : "Doctor"
          }
        ]
      }
    ],
    "specialty" : [
      {
        "coding" : [
          {
            "system" : "http://snomed.info/sct",
            "code" : "9632002",
            "display" : "Nursingprocedure"
          }
        ]
      }
    ],
    "location" : [
      {
        "reference" : "Location/loc-ffmh-hvi",
        "display" : "Founding Fathers Memorial Hospital, Heart and Vascular Institute"
      }
    ],
    "healthcareService" : [
      {
        "reference" : "HealthcareService/HL0001",
        "display" : "Founding Fathers Memorial Hospital cardiac services"
      }
    ],
    "telecom" : [
      {
        "extension" : [
          {
            "url" : "http://hl7.org/fhir/us/davinci-pdex-plan-net/StructureDefinition/plannet-CViaIntermediary-extension",
            "valueReference" : {
              "reference" : "Location/loc-ffmh-hvi",
              "display" : "Founding Fathers Memorial Hospital, Heart and Vascular Institute"
            }
          }
        ],
        "system" : "phone",
        "value" : "202-101-0123"
      }
    ],
    "availableTime" : [
      {
        "daysOfWeek" : [
          "mon",
          "tue",
          "wed",
          "thu"
        ],
        "availableStartTime" : "09:00:00",
        "availableEndTime" : "12:00:00"
      }
    ],
  ],

```



```
"endpoint" : [  
  {  
    "reference" : "Endpoint/EP2020Feb02",  
    "display" : "Direct address for the Founding Fathers Heart and Vascular Institute"  
  }  
]
```

---

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# Procedure

---

## Use Case

A member uses a mobile application to see what procedures have already been performed for a condition for which they have sought treatment. The application UI calls an external endpoint which returns the procedure information associated with the member in an industry-standard format. The application translates the information and displays it to the member.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/Procedure?patient=[reference]
- GET [base]/Procedure?patient=[reference]&date={gt|lt|ge|le}[date]{&date={gt|lt|ge|le}[date]}
- GET [base]/Procedure/[id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Procedure Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Procedure?patient=[reference]

```
[base] / Procedure ? patient = [reference]
GET    /Procedure?patient=100003095

{
  "resourceType": "Bundle",
  "id": "15eb63ac-4fd9-4a20-82c0-c29d8706f6e5",
  "meta": {
    "lastUpdated": "2021-01-25T00:19:42.823+00:00"
  },
  "type": "searchset",
  "total": 199,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Procedure?patient=100003095"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=b95e12c5-5595-5f83-8f9e-73183ea8b40f&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Procedure/100003095-146",
    "resource": {
      "resourceType": "Procedure",
      "id": "100003095-146",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-10-29T09:05:45.724+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"],
        "tag": [{
```

```

        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "b7dba6aa-52cc-4605-8821-b6e8488f2f82\t\t\t224"
      }
    ],
  },
  "identifier": [{
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "100003095-146"
  }
],
"status": "completed",
"code": {
  "coding": [{
    "code": "99284",
    "display": "Counseling andor coordination of care with other"
  }
]
},
"subject": {
  "reference": "Patient/100003095"
},
"encounter": {
  "reference": "Encounter/190790030500"
},
"performedPeriod": {
  "start": "2019-03-02",
  "end": "2019-03-02"
}
}, {
  "fullUrl": "https://<datahub_server>/Procedure/100003095-131",
  "resource": {
    "resourceType": "Procedure",
    "id": "100003095-131",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2020-10-29T09:05:49.771+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"],
      "tag": [{
        "system": "tranzform-apim-request-ns",
        "code": "user-request-id",
        "display": "b7dba6aa-52cc-4605-8821-b6e8488f2f82\t\t\t209"
      }
    ]
  },
  "identifier": [{
    "use": "official",
    "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
    "value": "100003095-131"
  }
],
"status": "completed",
"code": {
  "coding": [{
    "code": "71046",
    "display": "Radiological examination chest 2 views"
  }
]
},
"subject": {
  "reference": "Patient/100003095"
},
"encounter": {
  "reference": "Encounter/190660043100"
},
"performedPeriod": {
  "start": "2019-03-02",
  "end": "2019-03-02"
}
}
}

```

```

    }
  ]
}

```

[base]/Procedure?patient=[reference]&date={gt|lt|ge|le}[date]&date={gt|lt|ge|le}[date]

```

[base]/Procedure?patient=[reference]&date={gt|lt|ge|le}[date]&date={gt|lt|ge|le}[date]

GET /Procedure?patient=100003095&date=ge2019-03-02

{
  "resourceType": "Bundle",
  "id": "15eb63ac-4fd9-4a20-82c0-c29d8706f6e5",
  "meta": {
    "lastUpdated": "2021-01-25T00:19:42.823+00:00"
  },
  "type": "searchset",
  "total": 199,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Procedure?patient=100003095"
  }, {
    "relation": "next",
    "url": "https://<datahub_server>?_getpages=b95e12c5-5595-5f83-8f9e-73183ea8b40f&_getpagesoffset=2&_count=2&_pretty=true&_bundletype=searchset"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Procedure/100003095-146",
    "resource": {
      "resourceType": "Procedure",
      "id": "100003095-146",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2020-10-29T09:05:45.724+00:00",
        "profile": [ "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure" ],
        "tag": [{
          "system": "tranzform-apim-request-ns",
          "code": "user-request-id",
          "display": "b7dba6aa-52cc-4605-8821-b6e8488f2f82\t\t\t224"
        }
      ]
    },
    "identifier": [{
      "use": "official",
      "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
      "value": "100003095-146"
    }
  ],
  "status": "completed",
  "code": {
    "coding": [{
      "code": "99284",
      "display": "Counseling andor coordination of care with other"
    }
  ]
},
  "subject": {
    "reference": "Patient/100003095"
  },
  "encounter": {
    "reference": "Encounter/190790030500"
  },
  "performedPeriod": {
    "start": "2019-03-02",
    "end": "2019-03-02"
  }
}

```

```

    }, {
      "fullUrl": "https://<datahub_server>/Procedure/100003095-131",
      "resource": {
        "resourceType": "Procedure",
        "id": "100003095-131",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2020-10-29T09:05:49.771+00:00",
          "profile": [ "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure" ],
          "tag": [ {
            "system": "tranzform-apim-request-ns",
            "code": "user-request-id",
            "display": "b7dba6aa-52cc-4605-8821-b6e8488f2f82\t\t\t209"
          } ]
        },
        "identifier": [ {
          "use": "official",
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "value": "100003095-131"
        } ],
        "status": "completed",
        "code": {
          "coding": [ {
            "code": "71046",
            "display": "Radiological examination chest 2 views"
          } ]
        },
        "subject": {
          "reference": "Patient/100003095"
        },
        "encounter": {
          "reference": "Encounter/190660043100"
        },
        "performedPeriod": {
          "start": "2019-03-02",
          "end": "2019-03-02"
        }
      }
    }
  ]
}

```

### [base]/Procedure[id]

```
[base]/Procedure[id]
```

```
GET /Procedure/ProcedureResource1
```

```

{
  "resourceType": "Procedure",
  "id": "ProcedureResource1",
  "meta": {
    "versionId": "1626754457332",
    "lastUpdated": "2021-08-03T18:06:08.425+00:00",
    "profile": [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"
    ],
    "tag": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/common-tags",
        "code": "user-request-id",
        "display": "55e47481-1a07-41a2-a01c-686e52359754[1]"
      }
    ]
  },

```

```

    {
      "code" : "SecurityLabelStamped"
    }
  ]
},
"text" : {
  "status" : "generated",
  "div" : "<div xmlns=\"http://www.w3.org/1999/xhtml\">Routine Appendectomy</div>"
},
"status" : "completed",
"code" : {
  "coding" : [
    {
      "system" : "http://snomed.info/sct",
      "code" : "80146002",
      "display" : "Appendectomy (Procedure)"
    }
  ],
  "text" : "Appendectomy"
},
"subject" : {
  "reference" : "Patient/08b21d30-031d-59de-87c9-bcf56476ba9a",
  "type" : "Patient"
},
"performedDateTime" : "2013-04-05",
"recorder" : {
  "reference" : "Practitioner/1847202b-c4de-5941-b852-3cc7ca638106",
  "display" : "Dr Cecil Surgeon"
},
"asserter" : {
  "reference" : "Practitioner/1847202b-c4de-5941-b852-3cc7ca638106",
  "display" : "Dr Cecil Surgeon"
},
"performer" : [
  {
    "actor" : {
      "reference" : "Practitioner/1847202b-c4de-5941-b852-3cc7ca638106",
      "display" : "Dr Cecil Surgeon"
    }
  }
],
"reasonCode" : [
  {
    "text" : "Generalized abdominal pain 24 hours. Localized in RIF with rebound and guarding"
  }
],
"followUp" : [
  {
    "text" : "ROS 5 days - 2013-04-10"
  }
],
"note" : [
  {
    "text" : "Routine Appendectomy. Appendix was inflamed and in retro-caecal position"
  }
]
}

```

---

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# Provenance

---

## Use Case

The Provenance resource is used to create an audit trail of changes. It tracks information about the activity that either created, revised, deleted, or signed each version of a resource. It includes the agents and entities involved in the change. This information can be used to access the trustworthiness or quality of the information. It can also provide pointers of how to further investigate the origins of the resource and the information contained within it.

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/AllergyIntolerance?patient=[reference]&\_revinclude=Provenance:target
- GET [base]/CareTeam?patient=[reference]&\_revinclude=Provenance:target
- GET [base]/Condition?patient=[reference]&\_revinclude=Provenance:target
- GET [base]/Encounter?patient=[reference]&\_revinclude=Provenance:target
- GET [base]/Immunization?patient=[reference]&\_revinclude=Provenance:target
- GET [base]/MedicationRequest?patient=[reference]&\_revinclude=Provenance:target
- GET [base]/Observation?patient=[reference]&\_revinclude=Provenance:target
- GET [base]/Procedure?patient=[reference]&\_revinclude=Provenance:target
- GET [base]/CarePlan?patient=[reference]&\_revinclude=Provenance:target
- GET [base]/Provenance[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [US Core Provenance Profile](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/Encounter?patient=[reference]&\_revinclude=Provenance:target

```
[base] / Encounter ? patient = [reference] & _revinclude = Provenance : target
GET    /Encounter?patient=5639&_revinclude=Provenance:target

{
  "resourceType": "Bundle",
  "id": "8e45f9fb-f5f3-4a1f-a782-bb5bc35080cd",
  "meta": {
    "lastUpdated": "2021-01-26T00:12:57.264+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [{
    "relation": "self",
    "url": "https://<datahub_server>/Encounter?_revinclude=Provenance%3Atarget&patient=5639"
  }
],
  "entry": [{
    "fullUrl": "https://<datahub_server>/Encounter/65984345",
    "resource": {
      "resourceType": "Encounter",
      "id": "65984345",
      "meta": {
        "versionId": "1626754457332",
        "lastUpdated": "2021-01-07T07:58:01.964+00:00",
        "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"]
      },
      "identifier": [{
        "system": "YourEHR:tenant4",
        "value": "65984345"
      }], {
```

```

        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "65984345"
      }
    ],
    "status": "in-progress",
    "class": {
      "code": "IMP"
    },
    "subject": {
      "reference": "Patient/5639"
    },
    "participant": [
      {
        "individual": {
          "reference": "Practitioner/74"
        }
      },
      {
        "individual": {
          "reference": "Practitioner/60571"
        }
      }
    ],
    "period": {
      "start": "2021-01-06T20:20:00.000+05:30"
    }
  },
  "search": {
    "mode": "match"
  }
}, {
  "fullUrl": "https://<datahub_server>/Provenance/1230025",
  "resource": {
    "resourceType": "Provenance",
    "id": "1230025",
    "meta": {
      "versionId": "1626754457332",
      "lastUpdated": "2021-01-07T07:58:02.152+00:00",
      "profile": ["http://hl7.org/fhir/us/core/StructureDefinition/us-core-provenance"],
      "tag": [
        {
          "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
          "code": "official",
          "display": "1230025"
        }
      ]
    }
  },
  "target": [
    {
      "reference": "Patient/5639"
    },
    {
      "reference": "Practitioner/74"
    },
    {
      "reference": "Practitioner/60571"
    },
    {
      "reference": "Encounter/65984345"
    }
  ],
  "recorded": "2021-01-07T09:13:31.309",
  "reason": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/v3-ActReason",
          "code": "HCOMPL",
          "display": "health compliance"
        }
      ]
    }
  ]
},
  "agent": [
    {
      "type": {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/provenance-participant-
type",
            "code": "custodian"
          }
        ]
      }
    }
  ]
}

```

```

    ]
  },
  "who": {
    "reference": "Patient/5639"
  }
}, {
  "type": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/provenance-participant-
type",
      "code": "author"
    }
  ]
},
  "who": {
    "reference": "Practitioner/74"
  }
}, {
  "type": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/provenance-participant-
type",
      "code": "author"
    }
  ]
},
  "who": {
    "reference": "Practitioner/60571"
  }
}, {
  "type": {
    "coding": [{
      "system": "http://terminology.hl7.org/CodeSystem/provenance-participant-
type",
      "code": "transmitter"
    }
  ]
},
  "who": {
    "reference": "Patient/5639"
  }
}
]
},
"search": {
  "mode": "include"
}
}
]
}

```

### [base]/Provenance[/id]

```

[base]/Provenance[/id]

GET /Provenance/20091026120921

{
  "resourceType" : "Provenance",
  "id" : "20091026120921",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2021-05-20T13:52:56.976+00:00",
    "source" : "NYP",
    "profile" : [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-provenance"
    ],
  },
}

```

```
    "tag" : [
      {
        "code" : "SecurityLabelStamped"
      }
    ],
  },
  "target" : [
    {
      "reference" : "Patient/GO1061410"
    },
    {
      "reference" : "Goal/GL00313"
    },
    {
      "reference" : "Person/GO1061410"
    }
  ],
  "recorded" : "2021-06-04T06:15:26.689",
  "location" : {
    "type" : "Patient"
  },
  "reason" : [
    {
      "coding" : [
        {
          "system" : "http://terminology.hl7.org/CodeSystem/v3-ActReason",
          "code" : "HCOMPL",
          "display" : "health compliance"
        }
      ]
    }
  ],
  "agent" : [
    {
      "type" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/provenance-participant-type",
            "code" : "custodian"
          }
        ]
      },
      "who" : {
        "reference" : "Patient/4817cf4d-75f1-5755-89ec-5a7b37a97cc6"
      }
    },
    {
      "type" : {
        "coding" : [
          {
            "system" : "http://terminology.hl7.org/CodeSystem/provenance-participant-type",
            "code" : "transmitter"
          }
        ]
      },
      "who" : {
        "reference" : "Patient/4817cf4d-75f1-5755-89ec-5a7b37a97cc6"
      }
    }
  ]
}
```

---

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# RelatedPerson

---

## Use Case

**RelatedPersons** typically have a personal or non-healthcare-specific professional relationship to the patient. A **RelatedPerson** resource is often a source of information about the patient. But for those individuals who you want to contact for a patient, you would use the Patient's Contact element.

Individuals may serve as both a Patient's Contact and a Related Person.

Example **RelatedPersons** are:

- A patient's wife or husband
- A patient's relatives or friends
- A neighbor bringing a patient to the hospital
- A patient's attorney or guardian

## Supported GET Requests

See also: [Common Request Parameters](#)

- GET [base]/RelatedPerson?identifier={system|}[value]
- GET [base]/RelatedPerson?patient=[reference]
- GET [base]/RelatedPerson[/id]

## Response Parameters

The response parameters for the GET method are as follows:

- [CARIN BB](#)

## Error Codes

Definition of error codes

Error Code	Reason
204	Consent is enabled, but no data found.
206	Partial response has been returned when hybrid configuration is enabled.
400	Bad request. Resource could not be parsed or failed basic FHIR validation rules.
401	Unauthenticated. A valid token was not sent in the request.
403	Unauthorized to access the data. This occurs when consent is enabled, but the user does not have sufficient privileges to access the data.
404	An empty bundle is returned.
422	Unprocessable entity. The proposed resource violated FHIR profiles or server business rules.
500	Internal server error.

## Sample Requests and Responses

[base]/RelatedPerson?identifier={system|}[value]



```

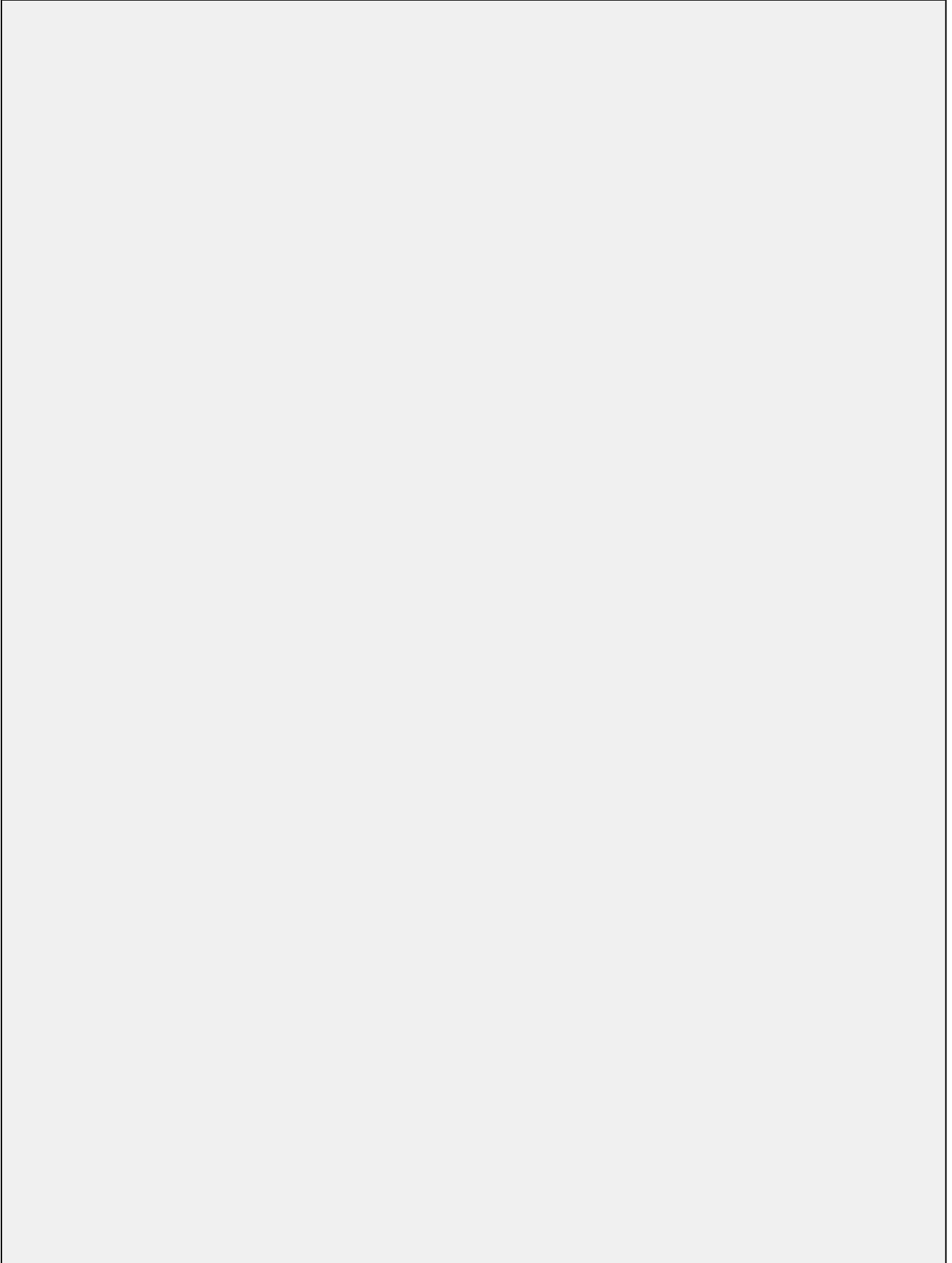
[base]/RelatedPerson?identifier={system|}[value]

GET /RelatedPerson?identifier=RelatedPerson23

{
  "resourceType": "Bundle",
  "id": "b79def37-6254-4744-b41b-bb64bdb9f296",
  "meta": {
    "lastUpdated": "2021-05-04T16:25:53.499+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/datahub/fhir/RelatedPerson?identifier=RelatedPerson23"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/datahub/fhir/RelatedPerson/RelatedPerson23",
      "resource": {
        "resourceType": "RelatedPerson",
        "id": "RelatedPerson23",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2019-12-18T23:57:06.000-05:00",
          "profile": [
            "http://hl7.org/fhir/us/carín/StructureDefinition/carín-bb-relatedperson"
          ],
          "tag": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/common-tags",
              "code": "user-request-id",
              "display": "14f7f303-dc67-4c91-882d-a894b12e0b6a\t\t\t1"
            }
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with Details</b>\n\t\t\t\t<p>\n\t\t\t\t\t</div>"
        },
        "identifier": [
          {
            "id": "subscriberid",
            "type": {
              "coding": [
                {
                  "code": "SN"
                }
              ]
            }
          },
          {
            "use": "official",
            "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
            "value": "RelatedPerson23"
          }
        ],
        "patient": {
          "reference": "Patient/Patient1"
        }
      }
    }
  ]
}

```

[base]/RelatedPerson?patient=[reference]



```
[base]/RelatedPerson?patient=[reference]
```

```
GET /RelatedPerson?patient=Patient1
```

```
{
  "resourceType": "Bundle",
  "id": "da788dfb-41dc-4209-af2f-ebf254792110",
  "meta": {
    "lastUpdated": "2021-05-04T16:18:29.886+00:00"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
      "url": "https://<datahub_server>/datahub/fhir/RelatedPerson?patient=Patient1"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://<datahub_server>/datahub/fhir/RelatedPerson/RelatedPerson23",
      "resource": {
        "resourceType": "RelatedPerson",
        "id": "RelatedPerson23",
        "meta": {
          "versionId": "1626754457332",
          "lastUpdated": "2019-12-18T23:57:06.000-05:00",
          "profile": [
            "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-relatedperson"
          ],
          "tag": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/common-tags",
              "code": "user-request-id",
              "display": "14f7f303-dc67-4c91-882d-a894b12e0b6a\t\t\t1"
            }
          ]
        },
        "text": {
          "status": "generated",
          "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t\t<b>Generated Narrative with Details</b>\n\t\t\t\t\t</p>\n\t\t\t\t\t</div>"
        },
        "identifier": [
          {
            "id": "subscriberid",
            "type": {
              "coding": [
                {
                  "code": "SN"
                }
              ]
            }
          }
        ],
        "use": "official",
        "system": "com.cognizant.tranzform.fhir.identifiers.logical-identifier",
        "value": "RelatedPerson23"
      },
      "patient": {
        "reference": "Patient/Patient1"
      }
    }
  ]
}
```

**[base]/RelatedPerson[/id]**

```

[base]/RelatedPerson[/id]

GET /RelatedPerson/RelatedPerson8123

{
  "resourceType" : "RelatedPerson",
  "id" : "RelatedPerson8123",
  "meta" : {
    "versionId" : "1626754457332",
    "lastUpdated" : "2012-12-11T23:57:06.000-05:00",
    "profile" : [
      "http://hl7.org/fhir/us/carin/StructureDefinition/carin-bb-relatedperson"
    ],
    "tag" : [
      {
        "system" : "http://terminology.hl7.org/CodeSystem/common-tags",
        "code" : "user-request-id",
        "display" : "21a104c2-119b-4593-b29d-6972a4c7b6c4[1]"
      },
      {
        "code" : "RelatedTo",
        "display" : "Patient1"
      },
      {
        "code" : "SecurityLabelStamped"
      }
    ]
  },
  "text" : {
    "status" : "generated",
    "div" : "<div xmlns=\"http://www.w3.org/1999/xhtml\">\n\t\t\t<p>\n\t\t\t\t<b>Generated Narrative with  
Details</b>\n\t\t\t</p>\n\t\t\t</div>"
  },
  "identifier" : [
    {
      "id" : "subscriberid",
      "type" : {
        "coding" : [
          {
            "code" : "SN"
          }
        ]
      }
    }
  ]
},
"patient" : {
  "reference" : "Patient/b8f71e88-8a4b-5d88-8033-c38fbbfdce5c",
  "type" : "Patient"
}
}

```

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