



# Picasso

## §170.315(G)(10) FHIR API

### Documentation

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## **Introduction:**

This document describes the Integration with the SMART App Launch Framework via FHIR allows a third-party application to connect with Provider(s) using the Picasso Software and retrieve Electronic Health Record data from those Providers.

This API collection for use of Health IT developers seeking to use our ONC 2015 Edition Cures Update Certified (g)(10) Standardized API for Health Level 7 (HL7®) Fast Healthcare Interoperability Resources (FHIR®) services.

These applications can launch from inside or outside the user interface of Picasso. The framework supports Apps for use by clinicians, patients, and others via a Patient Portal or any FHIR system where a user can give permissions to launch an App. It provides a reliable, secure authorization protocol for a variety of App architectures, including Apps that run on an end-user's device as well as Apps that run on a secure server.

This documentation is intended for use by third-party application developers which will describe registration, syntax, functionality and errors/exceptions they will see when using the FHIR API to integrate with provider(s) using the Picasso software

## **Registration**

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Developers wishing to integrate with the API must contact the PHI Provider that uses Picasso as their EMR. Picasso is an On-Prem EMR solution and as such, each API instance is separate based on the Provider (each Provider is considered a separate entity and will have their own API URL, registration for which third-party developers have access to their data via the FHIR API on their system, and each Provider is responsible for maintaining the rights of API accounts). Once a Provider decides to grant access to you as a third-party developer, they will set up a new developer account with access to the API based on the needs of the developer and agreed upon permissions with the Provider.

## **Configurations**

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The following are configuration settings that a third-party developer App needs to meet:

- 1 The App MUST read and parse JSON responses.
- 2 The App MUST assure that sensitive information (authentication secrets, authorization codes, tokens) are transmitted ONLY to authenticated servers, over TLS-secured channels. [§170.315\(g\)\(10\)](#) requires secure connection using TLS version 1.2 or higher.
- 3 If the App is a Bulk Export application, the application MAY need to be setup to handle longer lasting connections based on the data that is being exported.
- 4 The App MUST send requests over HTTPS. HTTP requests will be rejected.

## **FHIR URL**

It is published on the endpoint: <https://hag-fhir.amazingcharts.com/pi/endpoints>

## **API Resources:**

API Resource response can be requested in JSON or XML format.  
FHIR standard R4

## ALLERGIES AND INTOLERANCES US CORE ALLERGYINTOLERANCE PROFILE-

US Core [AllergyIntolerance](#) Profile

USCore Data Element	FHIR Resource Field
Substance(Drug class)	AllergyIntolerance.code(Snomed CT)
Substance(Medication)	AllergyIntolerance.code (RxNorm)
Reaction	AllergyIntolerance.reaction

### Allergy Intolerance

For an example JSON response for Allergy Intolerance, please see the following: [AllergyIntolerance](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/AllergyIntolerance
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific AllergyIntolerance record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/AllergyIntolerance/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET
https://FHIR_URL/AllergyIntolerance?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

Search Parameter Summary:

Parameter	Type	Example
<a href="#">clinical-status</a>	Token	GET [base]/AllergyIntolerance?clinical-status=active
<a href="#">patient</a>	Reference	GET [base]/AllergyIntolerance?patient=1

Search Parameter Combination Summary:

Parameter Combination	Types	Example
patient+clinical-status	reference+token	GET [base]/AllergyIntolerance?patient=1&clinical-status=active

## ASSESSMENT AND PLAN OF TREATMENT - US CORE CAREPLAN PROFILE

US Core [CarePlan](#) Profile

USCore Data Element	FHIR Resource Data
narrative summary	CarePlan.text
status	CarePlan.status (like draft
intent	CarePlan.intent (like proposal
category	CarePlan.category
patient	CarePlan.subject

### Care Plan

For an example JSON response for Care Plan, please see the following: [CarePlan](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/CarePlan
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific CarePlan record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/CarePlan/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```


You can retrieve the “\_revinclude” information with any request using the following:

```
GET
https://FHIR_URL/CarePlan?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

### Search Parameter Summary:

Parameter	Type	Example
<a href="#">category</a>	token	GET [base]/CarePlan?category=assess-plan
<a href="#">patient</a>	reference	GET [base]/CarePlan?patient=1

### Search Parameter Combination Summary:

Parameter Combination	Types	Example
patient+category	reference+token	GET [base]/CarePlan?patient=1&category=assess-plan 



## CARETEAM US CORE CARETEAM PROFILE

US Core [CareTeam](#) Profile

USCore Data Element	FHIR Resource Data
patient	CareTeam.subject
participant role	CareTeam.participant[i].role (where i is the index of participant)
careteam member name	CareTeam.participant[i].member.name (where i is the index of participant)
careteam member identifier	CareTeam.participant[i].member.identifier
careteam member location	CareTeam.managingOrganization
careteam member telecom	CareTeam.telecom

### Care Team

For an example JSON response for Care Team, please see the following: [CareTeam](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/CareTeam
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific CareTeam record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/CareTeam/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET
https://FHIR_URL/CareTeam?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

### Search Parameter Summary:

Parameter	Type	Example
<a href="#">status</a>	token	GET [base]/CareTeam?status=active
<a href="#">patient</a>	reference	GET [base]/CareTeam?patient=1

### Search Parameter Combination Summary:

Parameter Combination	Types	Example
patient+status	reference+token	GET [base]/CareTeam?patient=1&status=active

### Search Composite OR Summary:

Parameter	Types	Example
status	token	GET [base]/CareTeam?status=active,inactive

## CLINICAL NOTES - US CORE DOCUMENT REFERENCE

US Core [DocumentReference](#)

- **FHIR Resource:** DocumentReference
  - *Consultation Note*
  - *Discharge Summary Note*
  - *History & Physical*
  - *Progress Note*
- **FHIR Resource:** DocumentReference, DiagnosticReport
  - *Imaging Narrative*
  - *Laboratory Report Narrative*
  - *Pathology Report Narrative*
  - *Procedure Note*

USCore Data Element	FHIR Resource Data
status	documentReference.status
document category	documentReference.category
code	documentReference.type
patient	documentReference.subject
MIME type	documentReference.content.Typeformat
document URL	documentReference.content.attachment

Document Type	LOINC Code
Consultation Note	11488-4
History & Physical	34117-2
Procedure Note	28570-0
Progress Note	11506-3

### Document Reference

This resource supports the [Common Clinical Notes](#).

For an example JSON response, please see the following: [DocumentReference](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/DocumentReference
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific DocumentReference record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/DocumentReference/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET
https://FHIR_URL/DocumentReference?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

#### Search Parameter Summary:

Parameter	Type	Example
<a href="#">_id</a>	token	GET [base]/DocumentReference?_id=1
<a href="#">category</a> (Consult Note)	token	GET [base]/DocumentReference?category=11488-4
<a href="#">category</a> (History & Physical)	token	GET [base]/DocumentReference?category=34117-2
<a href="#">category</a> (Progress Note)	token	GET [base]/DocumentReference?category=11506-3
<a href="#">category</a> (Procedure Note)	token	GET [base]/DocumentReference?category=28570-0
<a href="#">patient</a>	reference	GET [base]/DocumentReference?patient=1
<a href="#">type</a>	token	GET [base]/DocumentReference?type=34117-2
<a href="#">date</a>	date	GET [base]/DocumentReference?date=2015-06-22

Search Parameter Combination Summary:

Parameter Combination	Example
patient+category+date	GET [base]/DocumentReference?patient=1&category=34117-2&date=2015-06-22

## ENCOUNTER US CORE ENCOUNTER PROFILE

### US Core Encounter Profile

USCore Data Element	FHIR Resource Data
status	Encounter.status
classification	Encounter.class
type	Encounter.type
patient	Encounter.subject

### Encounter

For an example JSON response for Encounter, please see the following: [Encounter](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Encounter
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Encounter record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Encounter/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET https://FHIR_URL/Encounter?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

### Search Parameter Summary:

Parameter	Type	Example
<a href="#">_id</a>	token	GET [base]/Encounter?_id=1
<a href="#">patient</a>	reference	GET [base]/Encounter?patient=1

## GOALS - US CORE GOAL PROFILE

US Core [Goal](#) Profile

USCore Data Element	FHIR Resource Data
status	Goal.achievementStatus
goal description	Goal.description
patient	Goal.subject

### Goal

For an example JSON response for Goal, please see the following: [Goal](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Goal
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakebngwu
```

You can retrieve a specific Goal record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Goal/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakebngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET https://FHIR_URL/Goal?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakebngwu
```

Parameter	Type	Example
<a href="#">patient</a>	reference	GET [base]/Goal?patient=1

## HEALTH CONCERNS - US CORE CONDITION PROFILE

US Core [Condition](#) Profile

USCore Data Element	FHIR Resource Data
status	Condition.status
category	Condition.category (like health concerns, problems, and encounter diagnoses).
code	Condition.code (ICD-10-CM/Snomed)
patient	Condition.subject

### Condition

For an example JSON response for Condition, please see the following: [Condition](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Condition
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Condition record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Condition/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET https://FHIR_URL/Condition?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

### Search Parameter Summary:

Parameter	Type	Example
<a href="#">patient</a>	Reference	GET [base]/Condition?patient=1



## IMMUNIZATIONS - US CORE IMMUNIZATION PROFILE

US Core [Immunization](#) Profile

USCore Data Element	FHIR Resource Data
status	immunization.status
vaccine code	immunization.vaccineCode
date	immunization.occurrence
patient	immunization.patient

For an example JSON response for Immunization, please see the following: [Immunization](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Immunization
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Immunization record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Immunization/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET https://FHIR_URL/Immunization?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

Search Parameter Summary:

Parameter	Type	Example
<a href="#">patient</a>	reference	GET [base]/Immunization?patient=1

## LABORATORY - US CORE LABORATORY RESULT OBSERVATION PROFILE & US CORE DIAGNOSTICREPORT

US Core [Laboratory Result Observation](#) Profile & US Core [DiagnosticReport](#) Profile for Laboratory Results Reporting.

### Laboratory Result Observation

USCore Data Element	FHIR Resource Data
status	Observation.status
category	Observation.category
LOINC code	Observation.code
patient	Observation.subject

### DiagnosticReport For Laboratory :

USCore Data Element	FHIR Resource Data
status	DiagnosticReport.status
category	DiagnosticReport.category
code	DiagnosticReport.code
patient	DiagnosticReport.subject
time	DiagnosticReport.issued
reported time	DiagnosticReport.effective

### Diagnostic Report

This Resource covers Radiology, Laboratory Result Reporting.

For an example JSON response for a Laboratory Result, please see the following: [Laboratory](#).

You can retrieve a specific DiagnosticReport record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/DiagnosticReport/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET https://FHIR_URL/DiagnosticReport?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

### Search Parameter Summary:

Parameter	Type	Example
<a href="#">category</a> (Radiology)	token	GET [base]/DiagnosticReport?category=LP29684-5
<a href="#">category</a> (Laboratory Result)	token	GET [base]/DiagnosticReport?category=LAB
<a href="#">patient</a>	reference	GET [base]/DiagnosticReport?patient=1
<a href="#">code</a> (Radiology)	token	GET [base]/DiagnosticReport?code=LP29684-5
<a href="#">date</a>	date	GET [base]/DiagnosticReport?date=2015-06-22T00:00:00.00%2B00:00

### Search Parameter Combination Summary:

Parameter Combination	Example
patient+category+date	GET [base]/DiagnosticReport?patient=1&category=LAB&date=2015-06-22
patient+code+date	GET [base]/DiagnosticReport?patient=1&code=LP29684-5&date=2015-06-22
patient+code	GET [base]/DiagnosticReport?patient=1&code=LP29684-5
patient+category	GET [base]/DiagnosticReport?patient=1&category=LAB

## MEDICATIONS - US CORE MEDICATION PROFILE, US CORE MEDICATIONREQUEST PROFILE, US CORE ALLERGYINTOLERANCE PROFILE

US Core [Medication](#) Profile  
US Core [MedicationRequest](#) Profile,

USCore Data Element	FHIR Resource Data
status	medicationRequest.status
intent code	medicationRequest.intent
medication	medicationRequest.medication
patient	medicationRequest.subject
date when written	medicationRequest.authoredOn
prescriber	medicationRequest.requester

### Medication

For an example JSON response for Medication please see the following: [Medication](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Medication
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Location record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Medication/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

This resource does not support any parameters and can only be called directly.

### Medication Request

For an example JSON response, please see the following: [MedicationRequest](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/MedicationRequest
Authorization: Bearer ewar8wrama.ajkew23
```

You can retrieve a specific MedicationRequest record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/MedicationRequest/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_include” information with any request using the following:

```
GET
https://FHIR_URL/MedicationRequest?[parameter=value]&_include=MedicationRequest:medi
cation
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET
https://FHIR_URL/MedicationRequest?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

#### Search Parameter Summary:

Parameter	Type	Example
<a href="#">status</a>	token	GET [base]/MedicationRequest?status=active
<a href="#">intent</a>	token	GET [base]/MedicationRequest?intent=filler-order
<a href="#">patient</a>	reference	GET [base]/MedicationRequest?patient=1

#### Search Parameter Combination Summary:

Parameter Combination	Example
patient+intent+status	GET [base]/MedicationRequest?patient=1&intent=filler-order&status=active

Search Composite OR Summary:

Parameter	Types	Example
status	token	GET [base]/MedicationRequest?status=active,stopped
intent	token	GET [base]/MedicationRequest?intent=filler-order,instance-order

## PATIENT DEMOGRAPHICS - US CORE PATIENT PROFILE

US Core [Patient](#) Profile

USCore Data Element	FHIR Resource Data
First Name Middle Name	Patient.name.given
Last Name	Patient.name.family
Previous Name	Patient.name
Suffix	Patient.name.suffix
US Core Birth Sex Extension	Patient.extension.BirthSex
Date of Birth	Patient.birthDate
US Core Race Extension	Patient.extension.race
US Core Extension Ethnicity	Patient.extension.ethnicity
Preferred Language	Patient.communication
Address	Patient.address
Phone Number	Patient.telecom

### Patient

For an example JSON response for Patient, please see the following: [Patient](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Patient
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Patient record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Patient/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET https://FHIR_URL/Patient?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

### Search Parameter Summary:

Parameter	Type	Example
<a href="#">id</a>	token	GET [base]/Patient?_id=1
<a href="#">birthdate</a>	date	GET [base]/Patient?birthdate=1970-05-01
<a href="#">family</a>	string	GET [base]/Patient?family=Smith
<a href="#">gender</a>	token	GET [base]/Patient?gender=Male
<a href="#">identifier</a>	token	GET [base]/Patient?identifier=1
<a href="#">name</a>	string	GET [base]/Patient?name=Dan

### Search Parameter Combination Summary:

Parameter Combination	Types	Example
birthdate+family	date+string	GET [base]/Patient?birthdate=1970-05-01&family=Smith
family+gender	string+token	GET [base]/Patient?family=Smith&gender=Male
birthdate+name	date+string	GET [base]/Patient?birthdate=1970-05-01&name=Dan
gender+name	token+string	GET [base]/Patient?gender=male&name=Dan



## PROBLEMS - US CORE CONDITION PROFILE

US Core [Condition](#) Profile

USCore Data Element	FHIR Resource Data
status	Condition.status
category	Condition.category (like health concerns, problems, and encounter diagnoses).
code	Condition.code (ICD-10-CM/Snomed)
patient	Condition.subject

### Condition

For an example JSON response for Condition, please see the following: [Condition](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Condition
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Condition record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Condition/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET https://FHIR_URL/Condition?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

Search Parameter Summary:

Parameter	Type	Example
<a href="#">patient</a>	reference	GET [base]/Condition?patient=1

## PROCEDURES - US CORE PROCEDURE PROFILE

US Core [Procedure](#) Profile

USCore Data Element	FHIR Resource Data
status	Procedure.status
procedure code	Procedure.code
patient	Procedure.subject
procedure performed date	Procedure.performed

### Procedure

For an example JSON response for Procedure, please see the following: [Procedure](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Procedure
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Procedure record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Procedure/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET https://FHIR_URL/Procedure?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

### Search Parameter Summary:

Parameter	Type	Example
<a href="#">patient</a>	reference	GET [base]/Procedure?patient=1
<a href="#">date</a>	date	GET [base]/Procedure?date=2015-06-22T00:00:00.00+00:00

### Search Parameter Combination Summary:

Parameter Combination	Types	Example
patient+date	reference+date	GET [base]/Procedure?patient=1&date=2015-06-22

## PROVENANCE - US CORE PROVENANCE PROFILE

US Core [Provenance](#) Profile

USCore Data Element	FHIR Resource Data
resources that Provenance is supporting	Provenance.target
date and time	Provenance.occurred
author organization	Provenance.agent.OnBehalfOf

### Provenance

For an example JSON response for Provenance please see the following: [AllergyIntolerance + Provenance Bundle](#). [This](#) is an Allergy Intolerance response with the Provenance attached at the end (in response to a \_revincludes parameter).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Provenance
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Provenance record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Provenance/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

This resource does not support any parameters and can only be called directly.

## US CORE OBSERVATION PROFILE

US Core [Observation](#) Profile

USCore Data Element	FHIR Resource Data
status	Observation.status
code	Observation.code
patient	Observation.subject
smoking status recorded date	Observation.effective
value	Observation.value

### Observation

This Resource covers Smoking Status, Pediatric Weight for Height, Laboratory Result, Pediatric BMI for Age, Pulse Oximetry and Pediatric Head Occipital-frontal Percentile.

For an example JSON response for Smoking Status, please see the following: [Smoking Status](#).

For an example JSON response for Pediatric Weight for Height please see the following: [Pediatric Weight for Height](#).

For an example JSON response for Laboratory Result, please see the following: [Laboratory Result](#).

For an example JSON response for Pediatric BMI for Age, please see the following: [Pediatric BMI for Age](#).

For an example JSON response for Pulse Oximetry please see the following: [Pulse Oximetry](#).

For an example JSON response for Pediatric Head Occipital-frontal Percentile please see the following: [Pediatric Head Occipital-frontal Percentile](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Observation
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Observation record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Observation/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET https://FHIR_URL/Observation?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

Search Parameter Summary:

Parameter	Type	Example
<a href="#">category</a> (laboratory)	token	GET [base]/Observation?category=laboratory
<a href="#">category</a> (vital-signs)	token	GET [base]/Observation?category=vital-signs
<a href="#">patient</a>	reference	GET [base]/Observation?patient=1
<a href="#">code</a> (Smoking Status)	token	GET [base]/Observation?code=72116-2
<a href="#">code</a> (Weight for Height)	token	GET [base]/Observation?code=77606-2
<a href="#">code</a> (BMI)	token	GET [base]/Observation?code=59576-9
<a href="#">code</a> (Pulse Oximetry)	token	GET [base]/Observation?code=2708-6
<a href="#">code</a> (Pulse Oximetry)	token	GET [base]/Observation?code=59408-5
<a href="#">code</a> (Body Height)	token	GET [base]/Observation?code=8302-2
<a href="#">code</a> (Temperature)	token	GET [base]/Observation?code=8310-5
<a href="#">code</a> (Blood Pressure)	token	GET [base]/Observation?code=85354-9
<a href="#">code</a> (Body Weight)	token	GET [base]/Observation?code=29463-7
<a href="#">code</a> (Head Occipital)	token	GET [base]/Observation?code=8289-1
<a href="#">code</a> (Heart Rate)	token	GET [base]/Observation?code=8867-4
<a href="#">code</a> (Respiratory Rate)	token	GET [base]/Observation?code=9279-1
<a href="#">date</a>	Date	GET [base]/Observation?date=2015-06-22

Search Parameter Combination Summary:

Parameter Combination	Example
patient+code	GET [base]/Observation?patient=1&code=8867-4
patient+category	GET [base]/Observation?patient=1&category=laboratory



## UNIQUE DEVICE IDENTIFIER(S) FOR PATIENT'S IMPLANTABLE DEVICE(S) - US CORE IMPLANTABLE DEVICE PROFILE

US Core [ImplantableDevice](#) Profile

USCore Data Element	FHIR Resource Data
code	Device.type
patient	Device.patient
UDI (optional)	Device.udiCarrier.deviceIdentifier
manufacture date(optional)	Device.manufactureDate
expiration date (optional)	Device.expirationDate
lot number (optional)	Device.lotNumber
serial number (optional)	Device.serialNumber

### Device (Implantable Device)

For an example JSON response for Implantable Device, please see the following: [Device](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Device
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Device record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Device/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve the “\_revinclude” information with any request using the following:

```
GET https://FHIR_URL/Device?[parameter=value]&_revinclude=Provenance:target
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

Search Parameter Summary:

Parameter	Type	Example
<a href="#">patient</a>	reference	GET [base]/Device?patient=1

## LOCATION

USCore [Location](#) Profile

USCore Data Element	FHIR Resource Data
name	Location.name

For an example JSON response for Location please see the following: [Location](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Location
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Location record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Location/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

### Search Parameter Summary:

Parameter	Type	Example
<a href="#">name</a>	string	GET [base]/Location?name=Location Name
<a href="#">address</a>	string	GET [base]/Location?address=1234 City Lane

## ORGANIZATION US CORE ORGANIZATION PROFILE

USCore [Organization](#) Profile

USCore Data Element	FHIR Resource Data
status	Organization.status
name	Organization.name

### Organization

For an example JSON response for Organization please see the following: [Organization](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Organization
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Organization record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Organization/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

### Search Parameter Summary:

Parameter	Type	Example
<a href="#">name</a>	string	GET [base]/Organization?name=Agency Name
<a href="#">address</a>	string	GET [base]/Organization?address=1234 City Lane

## PRACTITIONER

USCORE [PRACTITIONER](#) PROFILE.

USCore Data Element	FHIR Resource Data
Identifier (NPI)	Practitioner.identifier
name	Practitioner.name

### Practitioner

For an example JSON response for Practitioner please see the following: [Practitioner](#).

This resource is called like the following (with no parameters):

```
GET https://FHIR_URL/Practitioner
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

You can retrieve a specific Practitioner record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://FHIR_URL/Practitioner/1
Authorization: Bearer sntumgwar8ffwrama.hhgtf823.dlfjhimmakegbngwu
```

### Search Parameter Summary:

Parameter	Type	Example
<a href="#">name</a>	string	GET [base]/Practitioner?name=Sally
<a href="#">identifier</a>	token	GET [base]/Practitioner?identifier=102



## VITAL SIGNS – FHIR CORE VITALSIGNS PROFILE

FHIR Core [VitalSigns](#) Profile

<b>Profile Name</b>	<b>LOINC</b>
<a href="#">Vital Signs Panel</a>	85353-1
<a href="#">Respiratory Rate</a>	9279-1
<a href="#">Heart rate</a>	8867-4
<a href="#">Oxygen saturation</a>	2708-6
<a href="#">Body temperature</a>	8310-5
<a href="#">Body height</a>	8302-2
<a href="#">Head circumference</a>	9843-4
<a href="#">Body weight</a>	29463-7
<a href="#">Body mass index</a>	39156-5
<a href="#">Blood pressure systolic and diastolic</a>	85354-9
<a href="#">Systolic blood pressure</a>	8480-6
<a href="#">Diastolic blood pressure</a>	8462-4

This resource is called like the following (with no parameters):

```
GET https://EHR_FHIR/Observation
Authorization: Bearer ewar8wrama.ajkew234924.asdfaiweruehwrwrwhui
```

You can retrieve a specific Observation record “directly” using an ID (like 1, 2, 500, 5000, etc):

```
GET https://EHR_FHIR/Observation/1
Authorization: Bearer ewar8wrama.ajkew234924.asdfaiweruehwrwrwhui
```

You can retrieve the “\_revinclude” information with any request using the following:

GET https://EHR\_FHIR/Observation?[parameter=value]&\_revinclude=Provenance:target

Search Parameter Summary:

Parameter	Type	Example
<a href="#">category</a> (vital-signs)	token	GET [base]/Observation?category=vital-signs