

FHIR API Documentation Guide

April 2023

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I. Introduction

This guide is intended to describe the available resources and capabilities of CGM's FHIR API implementation for eMDs and Aprima.

The API supports the following standards versions:

- United States Core Data for Interoperability (USCDI) version 1
- US Core 4.0 (FHIR US Core 4.0 Profile)
- SMART App Launch 2.0.0
- Bulk Data 1.0.1

Below you will find information on the following topics:

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II. How do I register

- 1. Please contact your account executive with your request.
- 2. Reply to any questions that are required to complete the registration.
- 3. Once we have reviewed your information and verified the customer's purchase of the FHIR API connector, we'll work with you and your vendor to connect the FHIR application with your EHR.

III. Security overview

CGM's FHIR implementation uses the SMART on FHIR authorization framework. More information on the SMART on FHIR authorization framework and OAUTH 2.0 can be found at:

SMART App Launch 2.0 OAUTH 2.0

The SMART App Launch Framework connects third-party applications to Electronic Health Record data, allowing apps to launch from inside or outside the user interface of an EHR system. 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 from an EHR. We support both standalone and EHR launched apps for use by clinicians and healthcare providers. Standalone apps are supported for patients, so

- We support standalone and EHR launched apps
- · Standalone apps are supported for all users.
- EHR launched apps are supported for clinicians and healthcare providers.

CGM FHIR Server conforms to the Smart App Launch Framework 2.0.0. For further details on making authorization requests, and gaining access to FHIR resources, review the information at http://hI7.org/fhir/smart-app-launch/1.0.0/

If you want to set up your Client for access to multiple ApI Resources, an aud= must be passed as part of your access token request.

IV. API Syntax

CGM's FHIR APIs support POST and GET calls to retrieve resources. For Bulk Data export DELETE is supported to delete a bulk data request that has been made.

Examples:

GET [base]/AllergyIntolerance?patient=123

POST [base]/AllergyIntolerace

Content-Type: application/x-www-form-urlencoded

patient=123

V. General Search Information

Regarding searches:

Note on search nomenclature: In the examples, {system} is a component that can be omitted from the search string to search across all systems for the provided identifier. Inclusion of {System} produces a more targeted search.

When system is omitted for a code/token search, search all of the potential systems for the query value.

To search by reference, see the following page: http://hl7.org/fhir/R4/search.html#reference

To search by dates, see the following page: http://hl7.org/fhir/R4/search.html#date

For more detailed information, see the following page: http://hl7.org/fhir/R4/search.html

VI. Exception and Error Handling

A. General

- 1. Invalid/Not implemented resource returns "HTTP 404 Unknown."
- 2. Only GET and POST are supported (not HTTP GET/POST) returns "HTTP 405 Method Not Allowed."
- No DB Connection Info Available (client not found in client discovery) returns "HTTP 500 -Internal Server Error."
- 4. No available workers returns "HTTP 503 Not Available."
- Invalid JSON returned from DB (details added in diagnostics) returns "500 Internal Server Error."

```
EX:
{
    "resourceType": "OperationOutcome",
    "text": {
        "status": "generated"
    },
    "issue": [
        {
            "severity": "error",
            "code": "processing",
            "diagnostics": "The resource could not be generated - Error - DB ERROR -
            Conversion failed when converting from a character string to
            uniqueidentifier."
        }
        ]
```

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}

- 6. Read Interactions
- 1. NULL or empty response returns "500 Internal Server Error" for invalid JSON

B. Search

- 1. If an unrecognized search term is passed, the system will attempt to execute the search without that parameter included. This may result in larger result sets than intended.
- 2. Empty bundle response (no results returned) returns "200 OK."

C. Bulk Data

- 1. Failed Delete (output contains ERROR): Could Not DELETE Resource 500
- Status check on deleted resource: 404 Could not provide status Resource \$requestId has been deleted
- 3. General status check error/no valid status: 404 Not Found
- 4. \$export general error: 500 Could not generate the \$export request
- 5. Empty output for ndjson: 500 Fetched Resource has no data

D. Authentication

- 1. Authentication for CGM Identity conforms to the Internet Engineering Task Force (IETF) RFC 6749 OAuth 2.0 Authorization Framework.
- 2. Token Not Provided (no client found/no token returned) returns "401 Unauthorized."
- 3. Auth error is not null from Introspection returns "403 Forbidden."

```
if {$_active != "true"} {
    set authError "Token Not Valid - Token Not Active"
} elseif {$_nbf > $now} {
    set authError "Token Not Valid - Token Too New"
} elseif {$_exp < $now} {
    set authError "Token Not Valid - Expired Token"
} elseif {[Isearch $_aud $audience] < 0} {
    set authError "Token Not Valid - Invalid Audience - $audience"
} elseif {![regexp "$_iss" $::introspect_api_uri]} {
    set authError "Token Not Valid - Invalid Issuer"
} elseif {!$isScopeValid} {
    set authError "Token Not Valid - Invalid Scope"
}</pre>
```

VII. Resources

Below are the resources supported, including Field information, Search Parameters, and Examples.

A. AllergyIntolerance

Summary

The AllergyIntolerance resource records, searches, and fetches allergies/adverse reactions associated with a patient. This section identifies the fields and search parameters for the AllergyIntolerance resource.

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Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier code	X	
Identifier period	X	
Identifier system	X	
Clinical Status	X	X
Verification Status	X	X
Туре	X	X
Category	X	
Allergen Code	X	
Onset Date	X	
Recorded Date	X	X
Reaction	X	
Div		X
ID		X
Patient Display		X
Patient ID		X
Reaction Code		X
Reaction Display		X
Reaction System		X
Resource Type		X

Search Parameters

Application	Search Parameters	
CGM APRIMA	patient	
CGM eMDs	patient	

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-allergyintolerance.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/dduffley_db/R4/ AllergyIntolerance?patient=EB18D1DC- 81A5-482D-811C-AE67BE03831F
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/AllergyIntolerance/669A57C5-07DE- 4509-AB66-B4ED16210831
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/AllergyIntolerance?_id=669A57C5-07DE- 4509-AB66-B4ED16210831
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ AllergyIntolerance?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Allergyintolerance?patient%3d848B3EC7- 4773-4C03-81FB-C7E438D34558
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Allergyintolerance?patient%3d848B3EC7- 4773-4C03-81FB- C7E438D34558&_revInclude=Provenance:ta rget

B. Binary

Summary

Binary is a secondary resource providing access to the file image associated with a DocumentReference and certain DiagnosticReport resource requests. Binary has no search capability.

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Name	Used in CGM APRIMA	Used in CGM eMDs
Last Updated	X	Х
Content Type	X	Х
Data	X	Х

C. CarePlan

Summary

The CarePlan resource records, searches, and fetches assessment and plan of treatment data associated with a patient. This section identifies the fields and search parameters for the CarePlan resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier value	X	
Status	X	X
Intent	X	X
Category	X	
Title	X	X
Description	X	X
Subject	X	X
Encounter	X	
Period	X	
Created	X	X
Author	X	
Category Code		X
Div		X
ID		X
Period Period End		X
Period Period Start		X
Subject Name		X
Subject Source		X

Search Parameters

Application	Search Parameters
CGM APRIMA	patient
	category
CGM eMDs	patient
	category

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-careplan.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/dduffley_db/R4/ CarePlan?category=assess- plan&patient=EB18D1DC-81A5-482D-811C- AE67BE03831F
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/CarePlan/09D3AABD-EB47-4448-9F44- AD26B34442FC
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/CarePlan?_id=09D3AABD-EB47-4448- 9F44-AD26B34442FC
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/CarePlan?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/CarePlan?patient%3dAF6A2761-2B52- 4100-9CD3- 0C89F01E1D7A%26category%3dhttp%3a% 2f%2fhl7.org%2ffhir%2fus%2fcore%2fCodeS ystem%2fcareplan-category%7cassess-plan
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/CarePlan?patient%3dAF6A2761-2B52- 4100-9CD3- 0C89F01E1D7A%26category%3dhttp%3a% 2f%2fhl7.org%2ffhir%2fus%2fcore%2fCodeS ystem%2fcareplan-category%7cassess- plan&_revInclude=Provenance:target

D. CareTeam

Summary

The CareTeam resource records, searches, and fetches assessment and plan of treatment data associated with a patient. This section identifies the fields and search parameters for the CareTeam resource.

Columns	Used in CGM Aprima	Used in CGM eMDs
Identifier value	X	X
Status	X	X
Category	X	
Name	X	X
Subject	X	X
Encounter	X	
Period	X	
Participant Role	Х	X
Participant Member	X	X
Name	X	
Telecom	X	
Address	X	
Gender	Х	
Birthdate	Х	
Communication Language	X	
Div		X
ID		X
Participant Member Source		X
Participant System		X
Period End Date		X
Period Start Date		X
Resource Type		X

Search Parameters

Application	Search Parameters
CGM APRIMA	patient
	status
CGM eMDs	patient
	status

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-careteam.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ CareTeam?patient=EB18D1DC-81A5- 482D-811C- AE67BE03831F&status=proposed
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ CareTeam/09D3AABD-EB47-4448- 9F44-AD26B34442FC
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ CareTeam?_id=09D3AABD-EB47-4448- 9F44-AD26B34442FC
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ CareTeam?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ CareTeam?patient%3dFBCC274D- 16B1-43C5-A54E- D9CA3B995427%26status%3dactive
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ CareTeam?patient%3dFBCC274D- 16B1-43C5-A54E- D9CA3B995427%26status%3dactive&_ revInclude=Provenance:target

E. Condition

Summary

The Condition resource records, searches, and fetches a list of conditions associated with a patient. This section identifies the fields and search parameters for the Condition resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier type	X	
Identifier system	X	X
Identifier value	X	X
Identifier period	Х	
Clinical Status	Х	X
Verification Status	Х	X
Category	Х	X
Severity	Х	X
Condition Code	X	X
Condition Display	Х	X
Subject	X	
Encounter	X	
Onset Date/Time	X	X
Abatement Date/Time	X	
Recorded Date	X	X
Recorder	Х	
Note	X	
Condition System		X
Div		X
Encounter Display		X
Encounter Reference		X
Encounter Resource Type		X
ID		X
Subject Display		X
Subject Reference		X
Subject Resource Type		X

Search Parameters

Application	Search Parameters
CGM APRIMA	patient
CGM eMDs	patient

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-condition.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Condition?code=I10&patient=EB18D1D C-81A5-482D-811C-AE67BE03831F
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/Condition/ 563CAA21-921A-45FB-9CEC- 32E3A311901E
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Condition?_id=563CAA21-921A-45FB- 9CEC-32E3A311901E
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Condition?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Condition?patient%3dBFCDB88C-53DE- 462C-8484-140DDCC54A38
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Condition?patient%3dBFCDB88C-53DE- 462C-8484- 140DDCC54A38&_revInclude=Provenan ce:target

F. Device

Summary

The Device resource records, searches, and fetches UDI information associated with a patient's implantable device(s). This section identifies the fields and search parameters for the Device resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier type	X	
Identifier system	X	
Identifier value	X	
Identifier period	X	
Udi Carrier Identifier	X	X
Udi Carrier HRF (Human readable)	Х	Х
Udi Carrier Type	X	
Device Status	X	X
Device Distinct Identifier	X	X
Manufacturer	X	X
Manufacture Date	X	X
Expiration Date	X	X
Device Lot Number	X	X
Device Serial Number	X	X
Device Name ID	X	
Device Name type	X	X
Type code	X	
Type display	X	
Patient reference	X	
Patient display	X	X
Device Name Name		X
Div		X
ID		X
Patient ID		X
Resource Type		X

Search Parameters

Application	Search Parameters
CGM APRIMA	patient
CGM eMDs	patient

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-implantable-device.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Device?patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/Device/9FDDFDDA-CFEB- 430A-AD77-48B2FBE974CE
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/Device?_id=9FDDFDDA- CFEB-430A-AD77-48B2FBE974CE
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ Device?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/Device?patient%3dEC5B1CA5- 0639-4913-80F5-ECE349DDCE74
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/Device?patient%3dEC5B1CA5- 0639-4913-80F5- ECE349DDCE74&_revInclude=Provenan ce:target

G. DiagnosticReport

Summary

This resource includes both Laboratory Report and Report and Note Exchange.

Laboratory Report: Laboratory results are grouped and summarized using the DiagnosticReport resource which typically reference Observation resource(s). Each Observation resource represents an individual laboratory test and result value or component result values, or a "nested" panel (such as a microbial susceptibility panel) which references other observations. They can also be presented in report form or as free text. The DiagnosticReport resource records, searches, and fetches laboratory results associated with a

patient. This section identifies the fields and search parameters for the Laboratory Report resource.

Report and Note Exchange: Sets minimum expectations for searching and fetching Diagnostic Reports and Notes using the DiagnosticReport resource.

Fields--Laboratory

Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier type	X	
Identifier system	Х	
Identifier value	X	
Identifier period	X	
Status	X	X
Category	X	
Code	X	X
Code display	Х	
Subject	Х	
Encounter	Х	
Effective Date/Time	Х	X
Issued Date/Time	Х	X
Performer	Х	X
Results Interpreter	Х	
Result	Х	
Conclusion	Х	
Conclusion Code	Х	
Presented Form	Х	
ID		X
Resource SubType		X
Div		X
Subject Reference		X
Subject Type		X
Subject Display		X
Performer Type		X
Performer Display		X
	•	

Attachments will be presented as a url to a Binary resource where the document can be fetched.

Fields--Report

Columns	Used in CGM APRIMA	Used in CGM eMDs
Identifier type	X	
Identifier system	X	
Identifier value	X	
Identifier period	X	
Status	X	X
Category	X	
Code	X	X
Code display	X	
Subject	X	
Encounter	X	
Effective Date/Time	X	X
Issued Date/Time	X	X
Performer	X	X
Results Interpreter	X	
Result	X	
Conclusion	X	
Conclusion Code	X	
Presented Form	X	
ID		X
Resource SubType		X
Div		X
Subject Reference		Х
Subject Type		X
Subject Display		X
Performer Type		Х
Performer Display		X

Attachments will be presented as a url to a Binary resource where the document can be fetched.

Search Parameters--Diagnostic Report Laboratory

Application	Search Parameters
CGM APRIMA	patient
	date
	• code
	category
CGM eMDs	patient
	date
	• code
	category

Search Parameters--Diagnostic Report Report

Application	Search Parameters
CGM APRIMA	patient
	• date
	• code
	category
CGM eMDs	patient
	• date
	• code
	category

Needs to support at minimum Radiology (LP29684-5), Cardiology (LP29708-2), and Pathology (LP7839-6) for category.

Link to HL7.org Website

Laboratory Report: http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-corediagnosticreport-lab.html

Report and Note Exchange: http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-diagnosticreport-note.html

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Application		URL
CGM APRIMA	Laboratory	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ DiagnosticReport?patient=EB18D1DC- 81A5-482D-811C-AE67BE03831F
	Report/Note Exchange	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ DiagnosticReport?patient=EB18D1DC- 81A5-482D-811C-AE67BE03831F
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/DiagnosticReport/F0186C50- FDFB-46CD-AC22-0D21FB87CF73
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ DiagnosticReport?_id=F0186C50-FDFB- 46CD-AC22-0D21FB87CF73
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ DiagnosticReport?Group=PatientTypeIAL L

Attachments will be presented as a url to a Binary resource where the document can be fetched.

H. DocumentReference

Summary

This profile sets minimum expectations for searching and fetching patient documents including Clinical Notes using the DocumentReference resource. It identifies the mandatory core elements, extensions, vocabularies and value sets that shall be present in the DocumentReference resource when using this profile.

A reference to a document of any kind for any purpose. Provides metadata about the document so that the document can be discovered and managed. The scope of a document is any serialized object with a mime-type, so includes formal patient centric documents (CDA), clinical notes, scanned paper, and non-patient specific documents like policy text.

Columns	Used in CGM APRIMA	Used in CGM eMDs
Identifier System	X	X
Identifier Value	X	X
Status	Х	X
Provider Status	X	X
Type system	X	
Type code	X	
Subject	X	
Date	X	X
Author	X	X
Content Attachment	X	X
Content Format	X	
Context	X	
Context period	X	X
Context facility type	X	
Context practice setting code	Х	
Resource Type		X
ID		X
Div		X
Subject Source		X
Subject ID		X
Subject Display		X
Author Source		X
Author Name		X
Context Encounter		X

Search Parameters

Application	Search Parameters
CGM APRIMA	date
	patient
	• _id
	category
CGM eMDs	• date
	patient
	• _id
	category

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-documentreference.html

Examples

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ DocumentReference?patient=EB18D1DC -81A5-482D-811C-AE67BE03831F
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/DocumentReference/ 127844F9-B1C4-4C36-9797- D30DC1E2F39F
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ DocumentReference?_id=127844F9- B1C4-4C36-9797-D30DC1E2F39F
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ DocumentReference?Group=PatientTypel ALL

I. Encounter

Summary

The Encounter resource records, searches, and fetches basic encounter information for an individual patient. This section identifies the fields and search parameters for the Encounter resource.

Identifier type	Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier value X X Identifier period X Status X X Class X X Type code system X X Type code display X X Type code display X X Service type X X Priority X X Subject reference X X Subject display X X Participant id X X Participant type X X Participant period X X Participant individual reference X X Participant individual reference X X Period start X X X Period end X X X Encounter length X X Reason reference X X Reason reference display X X Diagnosis condition display X X	Identifier type	Х	X
Identifier period X Status X X X Class X X X Type code system X X X Service type X X Service type X X Subject reference X X X Subject display X X X Subject display X X X Participant id X Participant type X X X Participant period X X Participant individual reference X Participant individual reference X Participant individual display X Period start X X X Period end X X X Encounter length X Reason code X X Reason reference X Reason reference X Reason reference X Reason reference X Right X Diagnosis condition reference X Diagnosis condition display X Diagnosis use Diagnosis rank X Discharge disposition X X Service provider reference X Service provider reference X Div X	Identifier system	X	X
Status X X Class X X Type code system X X Type code display X X Service type X X Priority X X Subject reference X X Subject display X X Participant id X X Participant type X X Participant period X X Participant individual reference X X Participant individual reference X X Participant individual display X X Period start X X Period end X X X Encounter length X X Reason reference X X Reason reference display X Diagnosis id X Diagnosis condition reference X Diagnosis rank X Diagnosis rank X	Identifier value	X	X
Class X X Type code system X X Type code display X X Service type X X Priority X X Subject reference X X Subject display X X Participant id X X Participant type X X Participant period X X Participant individual reference X X Participant individual display X X Period start X X X Period end X X X Encounter length X X X Reason code X X X Reason reference X X X Diagnosis id X X X Diagnosis condition reference X X X Diagnosis rank X X X Diagnosis rank X	Identifier period	X	
Type code X X Type code X X Type code display X X Service type X X Priority X X Subject reference X X Subject display X X Participant id X X Participant type X X Participant period X X Participant individual reference X X Participant individual display X X Period start X X X Period end X X X Encounter length X X X Reason code X X X Reason reference X X Reason reference display X X Diagnosis condition reference X X Diagnosis rank X X Diagnosis rank X X Discharge disposition	Status	X	Х
Type code	Class	X	X
Type code display Service type Priority X Subject reference X Subject display X Participant id X Participant type Participant period A Participant individual reference X Participant individual display X Period end X Period end X Reason code Reason reference X Reason reference X Reason reference X Diagnosis id Diagnosis condition reference X Diagnosis rank Discharge disposition X Service provider reference X Service provider reference X Reason reference X X X X X X X X X X X X X	Type code system	X	Х
Service type X Priority X Subject reference X Subject display X Participant id X Participant type X Participant period X Participant individual reference X Participant individual reference X Participant individual display X Period start X Period end X Encounter length X Reason code X Reason reference X Reason reference X Diagnosis id X Diagnosis condition reference X Diagnosis rank X Discharge disposition X Service provider reference X Service provider display X Location reference X Service provider display X Location reference X Div X Service provider display X Location reference X Div X Location reference X Div X	Type code	X	Х
Priority X X X Subject reference X X X Subject display X X X Participant id X Participant type X X X Participant period X Participant individual reference X Participant individual display X Period start X X X Period end X X Encounter length X Reason code X Reason reference X Reason reference X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Div X Location reference X Div X Location reference X Div X	Type code display	X	X
Subject reference X X X Subject display X X Participant id X Participant type X X X Participant period X Participant individual reference X Participant individual display X Period start X X Period end X X Encounter length X Reason code X Reason reference X Reason reference X Diagnosis id X Diagnosis condition reference X Diagnosis rank X Discharge disposition X Service provider reference X Div X S Service provider display X Div X S Div X	Service type	X	
Subject display Participant id Participant type X Participant period X Participant individual reference X Participant individual display Period start X Period end X Encounter length X Reason code Reason reference X Reason reference X Diagnosis id Diagnosis condition reference X Diagnosis rank Diagnosis rank Discharge disposition X Service provider display X X X X X X X X X X X X X	Priority	X	X
Participant id X X X X X X X X X X X X X X X X X X	Subject reference	X	X
Participant type X X X Participant period X Participant individual reference X Participant individual display X Period start X X X Period end X X X Encounter length X Reason code X Reason reference X Reason reference X Diagnosis id X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Service provider display X Div X	Subject display	X	Х
Participant period X Participant individual reference X Participant individual display X Period start X X X Period end X X X Encounter length X Reason code X Reason reference X Reason reference X Diagnosis id X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Service provider display X Div X Div X	Participant id	X	
Participant individual reference X Participant individual display X Period start X X X Period end X X X Encounter length X Reason code X Reason reference X Reason reference X Diagnosis id X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Service provider display X Location reference X Div X	Participant type	X	X
Participant individual display Period start X X X Period end X X X Encounter length X Reason code X Reason reference X Reason reference X Diagnosis id X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Div X X X X X X X X X X X X X X X X X X	Participant period	X	
Period start X X X Period end X X Encounter length X Reason code X Reason reference X Reason reference display X Diagnosis id X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Div X	Participant individual reference	X	
Period end X X Encounter length X Reason code X Reason reference X Reason reference display X Diagnosis id X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X X Service provider reference X Service provider display X Location reference X Div X	Participant individual display	X	
Encounter length X Reason code X Reason reference X Reason reference display X Diagnosis id X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Service provider display X Location reference X Div X	Period start	X	X
Reason code X Reason reference X Reason reference display X Diagnosis id X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Service provider display X Div X Div X	Period end	X	X
Reason reference X Reason reference display X Diagnosis id X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X X Service provider reference X Service provider display X Location reference X Div X	Encounter length	X	
Reason reference display Diagnosis id X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Service provider display X Location reference X X ID X	Reason code	X	
Diagnosis id X Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Service provider display X Location reference X Div X	Reason reference	X	
Diagnosis condition reference X Diagnosis condition display X Diagnosis use X Diagnosis rank X Discharge disposition X X Service provider reference X X Service provider display X X Location reference X Div X	Reason reference display	X	
Diagnosis condition display Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Service provider display X Location reference X X ID X	Diagnosis id	X	
Diagnosis use X Diagnosis rank X Discharge disposition X Service provider reference X Service provider display X Location reference X Div X ID X	Diagnosis condition reference	X	
Diagnosis rank Discharge disposition X Service provider reference X Service provider display X Location reference X Div X ID	Diagnosis condition display	X	
Discharge disposition X X Service provider reference X X Service provider display X X Location reference X Div X ID X	Diagnosis use	X	
Service provider reference X X Service provider display X X Location reference X Div X ID X	Diagnosis rank	X	
Service provider display X X Location reference X Div X ID X	Discharge disposition	X	X
Location reference X Div X ID X	Service provider reference	X	X
Div X ID X	Service provider display	X	X
ID X	Location reference	X	
	Div		X
Location Reference X	ID		X
	Location Reference		X

Participant Period End	Х
Participant Period Start	X

Search Parameters

Application	Search Parameters
CGM APRIMA	date
	patient
	• _id
CGM eMDs	date
	patient
	• _id

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-encounter.html

24 April 2023

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Encounter?patient=EB18D1DC-81A5- 482D-811C-AE67BE03831F
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/Encounter/ 545EB3B1-3E58-4C9F-8345- 4097C6A687B9
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Encounter?_id=545EB3B1-3E58-4C9F- 8345-4097C6A687B9
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Encounter?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Encounter?patient%3d693A1A18-4620- 4CA4-AE81-6E7AD0931AD5
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Encounter?date%3dgt2003
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Encounter?patient%3d168E3628-2B29- 45FD-A58F- D9BC34944984%26date%3dgt2003

Application	Search Type	URL
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Encounter?patient%3d693A1A18-4620- 4CA4-AE81- 6E7AD0931AD5&_revInclude=Provenan ce:target
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Encounter?date%3dgt2003&_revInclude =Provenance:target
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Encounter?patient%3d168E3628-2B29- 45FD-A58F- D9BC34944984%26date%3dgt2003&_r evInclude=Provenance:target

J. Goal

Summary

The Goal resource records, searches, and fetches Goal information associated with a patient. This section identifies the fields and search parameters for the Goal resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Life-cycle status	X	X
Achievement Status	X	X
Priority	X	
Description system	X	
Description code	X	
Description display	X	
Subject reference	X	X
Subject display	X	X
Start Date	X	X
Goal Target	X	
Status date	X	X
Status reason	X	
Expressed by reference	X	
Expressed by display	X	
Source reference	X	
Source display	X	
Notes	X	
Outcome reference	X	
Outcome display	X	
Description Text		X
Div		X
ID		X
Resource Type		X
Target Due Date		X

Search Parameters

Application	Search Parameters
CGM APRIMA	patient
CGM eMDs	patient

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-goal.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/dduffley_db/R4/ Goal?patient=EB18D1DC-81A5-482D-811C- AE67BE03831F
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Goal/0131CEF5-503E-4A95-B6E7- CFF72A7A8B57
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Goal?_id=0131CEF5-503E-4A95-B6E7- CFF72A7A8B57
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Goal?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Goal?patient%3dB9099D33-8FD4-4865- AE95-67C4E2CD8CDB
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Goal?patient%3dB9099D33-8FD4-4865- AE95- 67C4E2CD8CDB&_revInclude=Provenance:t arget

K. Immunization

Summary

The Immunization resource records, fetches, and searches immunization history associated with a patient. This section identifies the fields and search parameters for the Immunization resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Status	X	X
Status reason	X	X
Vaccine code system	X	
Vaccine code	X	
Vaccine code display	X	
Patient reference	X	
Patient display	X	
Occurrence Date/Time	X	
Primary source	X	X
Lot number	X	X
Expiration date	X	X
Site code	X	X
Site display	X	X
Route code	X	X
Route display	X	
Dose quantity value	X	
Dose quantity unit	X	
Performer	X	
Program eligibility code	X	
Funding source	X	
Div		X
ID		X
Patient ID		X
Patient Name		X
Patient Source		X
Vaccine Code Coding		X

Search Parameters

Application	Search Parameters
CGM APRIMA	patient
CGM eMDs	patient

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-immunization.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/dduffley_db/R4/ Immunization?patient=EB18D1DC-81A5- 482D-811C-AE67BE03831F
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Immunization/E56D2CD9-7A66-4754- A094-DCB208570057
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Immunization?_id=E56D2CD9-7A66- 4754-A094-DCB208570057
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Immunization?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Immunization?patient%3dD22705CD- 1A3B-467E-92EF-15A0EDBCBC41
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Immunization?patient%3dD22705CD- 1A3B-467E-92EF- 15A0EDBCBC41&_revInclude=Provenance:t arget

L. Location

Summary

The Location resource records, searches for, and fetches a Location associated with a patient, provider or organization. This section identifies the fields and search parameters for the Location resource.

X X X	X X X
X	
	Y
Χ	^
, ·	
Х	Х
Χ	Х
Х	Х
Х	Х
Х	X
Х	
Х	
Х	Х
Х	Х
X	
Х	
	X
	X
	X
	X
	Х
	Х
	Х
	X
	Х
	X X X X X X X X

Search Parameters

Application	Search Parameters
CGM APRIMA	address
	• name
CGM eMDs	address
	• name

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-location.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/dduffley_db/R4/ Location?name=BisaIndependentClinic
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Location/C60409F6-9394-417C-A25B- 16E219170A7D
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Location?_id=C60409F6-9394-417C- A25B-16E219170A7D
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Location?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Location?name%3dNatren%20Inc.
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Location?address%3d369%20Bayview%20A venue
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Location?address%3dNew%20York
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Location?address%3d78652

Application	Search Type	URL
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Location?name%3dNatren%20Inc.&_revIncl ude=Provenance:target
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Location?address%3d369%20Bayview%20A venue&_revInclude=Provenance:target
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Location?address%3dNew%20York&_revIncl ude=Provenance:target
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Location?address%3d78652&_revInclude=P rovenance:target

M. MedicationRequest

Summary

The MedicationRequest resource can be used to record a patient's medication prescription or order. This section identifies the fields and search parameters for the MedicationRequest resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier type	X	
Identifier system	X	
Identifier value	X	
Identifier period	X	
Status	X	X
Intent	X	X
Category code	X	X
Category display	X	
Reported boolean	X	
Medication code system	X	
Medication code display	X	
Subject reference	X	
Subject display	X	X
Encounter reference	X	
Encounter display	X	
Authored on date	X	
Requester reference	X	
Requester display	X	X
Dosage instructions	X	X
Div		X
ID		X
Medication Codeable Concept Coding		X
Resource Type		X
Subject ID		X

Search Parameters

Application	Search Parameters
CGM APRIMA	intent
	patient
	status
CGM eMDs	intent
	patient
	status

MedicationRequests provide information about the prescribed information as a codeable concept with the MedicationRequest itself.

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-medication request. html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/dduffley_db/R4/ MedicationRequest?intent=proposal&patient =EB18D1DC-81A5-482D-811C- AE67BE03831F

Application	Search Type	URL
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/MedicationRequest/9D1D9E35-85E8- 444E-A510-AABF68D6586E
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/MedicationRequest?_id=9D1D9E35- 85E8-444E-A510-AABF68D6586E
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ MedicationRequest?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Medication?patient%3d7623956D-BE6E- 4064-ACFB-FA9BBF26564C
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Medication?intent%3dorder
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Medication?status%3dcompleted
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Medication?patient%3d7623956D-BE6E- 4064-ACFB- FA9BBF26564C&_revInclude=Provenance:ta rget
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Medication?intent%3dorder&_revInclude=Pr ovenance:target
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Medication?status%3dcompleted&_revInclud e=Provenance:target

N. Observation

Summary

The observation resource combines the Lab Results, Vitals, and Smoking resources. Each Observation resource represents an individual laboratory test and result value, a "nested" panel (such as a microbial susceptibility panel) which references other observations, or rarely a laboratory test with component result values. The Vital Signs profile sets minimum expectations for the Observation resource to record, search and fetch the vital signs associated with a patient that include the primary vital signs plus additional measurements such as height, weight and BMI. The Observation resource records, searches, and fetches smoking status data associated with a patient.

Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier type	X	X
Identifier system	X	X
Identifier value	X	X
Identifier period	X	
Status	X	X
Category code	X	X
Observation code system	Х	
Observation code	Х	
Observation code display	X	
Subject reference	X	X
Subject type	Х	X
Subject display	X	X
Encounter reference	X	
Encounter type	X	
Encounter display	X	
Effective Date/Time	X	X
Effective period start	X	
Effective period end	X	
Issued Date/Time	X	X
Performer reference	X	
Performer type	X	
Performer display	X	
Observation value	X	
Observation value unit	X	
Observation value type	X	
Data absent reason	X	
Interpretation code	X	
Note id	X	X
Note time	Х	X
Note text	X	X
Method code system	X	
Method code	X	
Method code display	X	
Reference range	X	
Derived from reference	X	
Derived from type	X	

Derived from display	Х	
Component code system	Х	
Component code	Х	
Component code display	Х	
Component value	Х	Х
Component value unit	Х	Х
Component value type	Х	Х
Div		Х
ID		Х

Search Parameters

Application	Search Parameters
CGM APRIMA	date
	• code
	patient
	category
CGM eMDs	date
	• code
	patient
	category

Link to HL7.org Website

Lab Results: http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-observation-lab.html

Vitals: http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-vital-signs.html

Smoking: http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-smokingstatus.html

Application	Search Type	URL
CGM APRIMA	Laboratory	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?category=laboratory&patie nt=EB18D1DC-81A5-482D-811C- AE67BE03831F
	Blood Pressure	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=85354- 9&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	ВМІ	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=39156- 5&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	Head Circumference	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=9843- 4&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	Body Height	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=8302- 2&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	Body Weight	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=29463- 7&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	Body Temp	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=8310- 5&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F

Application	Search Type	URL
	Heart Rate	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=8867- 4&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	Pediatric BMI	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=59576- 9&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	Pediatric Head Occipital- frontal Circumference Percentile	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=8289- 1&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	Pediatric Weight for Height	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=77606- 2&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	Pulse Oximetry	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=59408- 5&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	Respiratory Rate	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=9279- 1&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F
	Smoking Status	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Observation?code=72166- 2&patient=EB18D1DC-81A5-482D- 811C-AE67BE03831F

Application	Search Type	URL
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Observation/08D049F3-5283-4D61- 9386-C8EF64CD1F6B
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Observation?_id=08D049F3-5283- 4D61-9386-C8EF64CD1F6B
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Observation?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Observation?patient%3d8F386804- D505-4D81-BDCE- 058F01C5A67F%26category%3dhttp% 3a%2f%2fterminology.hl7.org%2fCodeS ystem%2fobservation-category%7cvital- signs
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Observation?patient%3dF6D88881- FAED-4FA4-866B- F2CFDE9F1821%26date%3dgt2003%2 6category%3dhttp%3a%2f%2fterminolo gy.hl7.org%2fCodeSystem%2fobservatio n-category%7cvital-signs
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Observation?patient%3d8F386804- D505-4D81-BDCE- 058F01C5A67F%26category%3dhttp% 3a%2f%2fterminology.hl7.org%2fCodeS ystem%2fobservation-category%7cvital- signs&_revInclude=Provenance:target

Application	Search Type	URL
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Observation?patient%3dF6D88881- FAED-4FA4-866B- F2CFDE9F1821%26date%3dgt2003%2 6category%3dhttp%3a%2f%2fterminolo gy.hl7.org%2fCodeSystem%2fobservatio n-category%7cvital- signs&_revInclude=Provenance:target

O. Organization

Summary

The Organization resource searches for and fetches an Organization associated with a patient or provider. This section identifies the fields and search parameters for the Organization resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier type	Х	X
Identifier system	X	X
Identifier value	X	X
Identifier period	X	
Active status	X	X
Organization type code	X	X
Organization type display	X	X
Organization name	X	X
Telecom system	X	X
Telecom value	X	X
Telecom type	X	
Address	X	
Alias	X	
Part of ID	X	
Organization contact	X	
Organization contact period	X	
Address City		X
Address Country		X
Address Line 1		X
Address Line 2		X
Address Postal Code		X
Address State		X
ID		X
Organization Type System		X
Text Div		X
Text Status		X

Search Parameters

Application	Search Parameters
CGM APRIMA	address
	• name
CGM eMDs	address
	• name

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-organization.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Organization?name=Bisa
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?_id=CBC834FC-D9C0- 4184-BC04-630458B4DF95
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?_id=CBC834FC-D9C0- 4184-BC04-630458B4DF95
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?Group=PatientTypelALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?name%3dWarner%20Chil cott
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?address%3d800%2053rd %20Avenue%20NE
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?address%3dIndianapolis
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?address%3d60035

Application	Search Type	URL
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?name%3dWarner%20Chil cott&_revInclude=Provenance:target
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?address%3d800%2053rd %20Avenue%20NE&_revInclude=Prove nance:target
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?address%3dIndianapolis &_revInclude=Provenance:target
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Organization?address%3d60035&_revI nclude=Provenance:target

P. Patient

Summary

Te Patient resource records, searches, and fetches basic demographics and other administrative information about an individual patient. This section identifies the fields and search parameters for the Patient resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Race code	X	X
Race display	X	X
Ethnicity code	X	X
Ethnicity display	Х	X
Birth sex code	Х	X
Identifier system	X	X
Identifier code	X	X
Identifier display	X	X
Identifier period	X	
Active status	X	X
Patient name	Х	
Patient name period	Х	
Telecom value	Х	X
Telecom System		X
Telecom Type		X
Gender	Х	
Birth date	Х	X
Deceased date	X	
Address	X	
Address period	X	
Marital status code	Х	X
Marital status display	X	X
Contact relationship	X	
Contact name	Х	
Contact period	X	
Language code	X	X
Language display	Х	X
Address City		X
Address Full Address		X
Address Line 1		X
Address Line 2		X
Address Period Start		X
Address Postal Code		X
Address State		X
Birth Sex Name		X
Div		X

Gender Code	X
Gender Name	X
Gender Identity Code	X
Gender Identity Name	X
ID	X
Multiple Birth Order	X
Name Family	X
Name Full Name	X
Name Given	X
Name Middle	X
Name Prefix	X
Name Suffix	X
Resource Type	X

Search Parameters

Application	Search Parameters
CGM APRIMA	birthdate
	• gender
	identifier
	• name
	• _id
CGM eMDs	birthdate
	• gender
	identifier
	• name
	• _id

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-patient.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/dduffley_db/R4/ Patient?name=Maxwell

Application	Search Type	URL
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Patient/57562583-40BE-475D-B83D- 2F142B492C6E
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Patient?_id=57562583-40BE-475D-B83D- 2F142B492C6E
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Patient?Group=PatientTypelALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Patient?identifier%3dPatientFileID%7cFITVE R0001
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Patient?name%3dCackle
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Patient?birthdate%3dgt1980
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Patient?name%3dBickle%26birthdate%3d20 01
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Patient?name%3dStoryone%26gender%3dfe male
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/Patient?gender%3dfemale

Application	Search Type	URL
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Patient?identifier%3dPatientFileID%7cFITVE R0001&_revInclude=Provenance:target
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Patient?name%3dCackle&_revInclude=Prove nance:target
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Patient?birthdate%3dgt1980&_revInclude=Pr ovenance:target
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Patient?name%3dBickle%26birthdate%3d20 01&_revInclude=Provenance:target
		GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Patient?name%3dStoryone%26gender%3dfe male&_revInclude=Provenance:target
	GET https:// apigateway.healthportalsite.com:7443/infor/ CustomerApi/fhir/0017X00000xSuJY-EMDs/ R4/ Patient?gender%3dfemale&_revInclude=Prov enance:target	

Q. Practitioner

Summary

The Practitioner resource records, searches, and fetches basic demographics and other administrative information about an individual practitioner. This section identifies the fields and search parameters for the Practitioner resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier code	Х	
Identifier display	X	
Active status	X	
Practitioner name	X	
Practitioner name period	X	
Telecom value	X	X
Telecom Type		X
Address	X	
Address period	X	
Gender	X	
Birthdate	X	
Language code	X	X
Language display	X	X
Active		X
Address City		X
Address Full Name		X
Address Line 1		X
Address Line 2		X
Address Period Start		X
Address Postal Code		X
Address State		X
Div		X
Gender Code		X
Gender Name		X
ID		X
Identifier Type		X
Identifier Value		X
Name Family		X
Name Full Name		X
Name Given		X
Name Middle		X
Name Prefix		X
Name Suffix		Х

Search Parameters

Application	Search Parameters
CGM APRIMA	identifier
	• name
CGM eMDs	identifier
	• name

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-practitioner.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Practitioner?name=Provider
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/Practitioner/ A1FFA0B5-97D2-49A6-8F95- 79BCEEEC12D6
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Practitioner?_id=A1FFA0B5-97D2-49A6- 8F95-79BCEEEC12D6
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Practitioner?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Practitioner?name%3dNew%2c%20SP1
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/ 0017X00000xSuJY-EMDs/R4/ Practitioner?name%3dNew%2c%20SP1 &_revInclude=Provenance:target

R. PractitionerRole

Summary

The PractitionerRole resource records, searches, and fetches the practitioner role for a practitioner. This section identifies the fields and search parameters for the PractitionerRole resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier code	Х	
Identifier display	Х	
Identifier period	Х	
Active status	Х	
Practitioner ID	Х	
Practitioner display	Х	
Organization ID	Х	
Organization display	Х	
Taxonomy code	Х	
Taxonomy display	Х	
Specialty code	Х	
Specialty display	Х	
Location	Х	
Telecom value	Х	X
Telecom Type		X
Telecom use	Х	
Endpoint	Х	
Address City		X
Address Full Name		X
Address Line 1		X
Address Line 2		X
Address Period Start		X
Address Postal Code		X
Address State		X
Div		X
Gender Code		X
Gender Name		X
ID		X
Identifier Type		X
Identifier Value		X
Name Family		X
Name Full Name		X
Name Given		X
Name Middle		X
Name Prefix		X
Name Suffix		X

Search Parameters

Application	Search Parameters
CGM APRIMA	specialty
	practitioner
CGM eMDs	specialty
	practitioner

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-practitionerrole.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ PractitionerRole?Practitioner=6FB6A0FE- 1CD5-4A8C-8798-06D8A195D8DB
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/PractitionerRole/9F60E35B- 5581-4F60-BB16-AFC024DAB898
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ PractitionerRole?_id=9F60E35B-5581- 4F60-BB16-AFC024DAB898
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ PractitionerRole?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ PractitionerRole?specialty%3dhttp%3a%2 f%2fnucc.org%2fprovider- taxonomy%7c207RG0100X
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ PractitionerRole?specialty%3dhttp%3a%2 f%2fnucc.org%2fprovider- taxonomy%7c207RG0100X&_revInclude= Provenance:target

S. Procedure

Summary

The Procedure resource records, searches, and fetches procedures associated with a patient. This section identifies the fields and search parameters for the Procedure resource.

Name	Used in CGM APRIMA	Used in CGM eMDs
Identifier type	Х	
Identifier system	X	
Identifier value	Х	
Identifier period	Х	
Status	Х	X
Category code	Х	
Category code display	Х	
Procedure code system	Х	
Procedure code	Х	
Procedure code display	Х	
Subject reference	Х	X
Subject Patient Name		X
Subject display	Х	
Encounter reference	Х	X
Performed Date/Time	Х	X
Performer reference	Х	X
Performer display	Х	
Performer Name		X
Location reference	Х	X
Follow up text	Х	
Note text	Х	X
Focal device id	X	
Focal device action code	X	
Code Coding		X
Div		X
ID		X
Resource Type		X

Search Parameters

Application	Search Parameters
CGM APRIMA	date
	patient
CGM eMDs	date
	patient

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-procedure.html

Application	Search Type	URL
CGM APRIMA		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/dduffley_db/R4/ Procedure?patient=EB18D1DC-81A5- 482D-811C-AE67BE03831F
CGM eMDs	read "/resource/uid"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/Procedure/13B0677C-3B25- 4133-A49E-5731D389EDDB
	search _id "resource?_id=123	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/Procedure?_id=13B0677C- 3B25-4133-A49E-5731D389EDDB
	group search "/ resource?group=GroupTypel GroupID"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ Procedure?Group=PatientTypeIALL
	bundle search "/ resource?searchname=sear chvalue"	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ Procedure?patient%3d2434952D-2C80- 4702-A82A-A958FF9236CD
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/Procedure?code%3d80061
	bundle search with provenance	GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ Procedure?patient%3d2434952D-2C80- 4702-A82A- A958FF9236CD&_revInclude=Provenanc e:target
		GET https:// apigateway.healthportalsite.com:7443/ infor/CustomerApi/fhir/0017X00000xSuJY- EMDs/R4/ Procedure?code%3d80061&_revInclude= Provenance:target

T. Provenance

Summary

The Provenance resource records, searches, and fetches Provenance information associated with a record. It identifies which core elements, extensions, vocabularies and value sets shall be present in the resource when using this profile.

Fields

Name	Used in CGM APRIMA	Used in CGM eMDs
Target	X	
Occurred	X	
Recorded	X	
Location	X	
Reason system	X	
Reason code	Х	
Reason display	X	
Agent code	X	
Agent reference	X	
Agent on behalf of	X	
Transmitter id	X	
Transmitter type	X	
Transmitter code	X	
Transmitter reference	X	

Search Parameters

Application	Search Parameters
CGM APRIMA	• _id
	patient
CGM eMDs	• _id
	patient

Provenance must be supported for AllergyIntolerance, CarePlan, CareTeam, Condition, DiagnosticReport for Laboratory Results Reporting, DiagnosticReport for Report and Note Exchange, DocumentReference, Encounter, Goal, Immunization, ImplantableDevice, Laboratory Result Observations, MedicationRequest, Patient, Pediatric BMI, Pediatric Weight for Height, Procedure, Pulse Oximetry, Smoking Status, Vital Signs

Link to HL7.org Website

http://hl7.org/fhir/us/core/STU4/StructureDefinition-us-core-provenance.html

	GET https://apigateway.healthportalsite.com:7443/infor/CustomerApi/fhir/dduffley_db/R4/AllergyIntolerance?patient=EB18D1DC-81A5-482D-811C-AE67BE03831F&_revinclude=Provenance:target
CGM eMDs	Examples for CGM eMDs are included with other Resource Examples.

VIII. USCDI Element to FHIR Resource Crosswalk

Allergies and Intolerances - US Core AllergyIntolerance Profile

- FHIR Resource: AllergyIntolerance
 - o Substance (Drug Class)
 - o Substance (Medication)
 - o Reaction

Assessment and Plan of Treatment - US Core CarePlan Profile

- FHIR Resource: CarePlan
 - o Assessment and Plan of Treatment

<u>Care Team Members</u> - US Core <u>CareTeam</u> Profile

- FHIR Resource: CareTeam
 - o Care Team

<u>Clinical Notes</u> - US Core <u>DocumentReference</u> Profile & US Core <u>DiagnosticReport Profile for</u> Report and Note Exchange

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

Goals - US Core Goal Profile

FHIR Resource: Goal

o Patient Goals

<u>Health Concerns</u> - US Core <u>Condition</u> Profile

FHIR Resource: Condition

o Health Concerns

<u>Immunizations</u> – US Core <u>Immunization</u> Profile

FHIR Resource: Immunization

o *Immunization*

<u>Laboratory</u> – US Core <u>Laboratory Result Observation</u> Profile & US Core <u>DiagnosticReport</u>
Profile for Report and Note Exchange

• FHIR Resource: Observation, DiagnosticReport

o Tests

o Values/Results

<u>Medications</u> – US Core <u>Medication</u> Profile, US Core <u>MedicationRequest</u> Profile, US Core <u>AllergyIntolerance</u> Profile

FHIR Resource: Medication, MedicationRequest

o *Medications*

FHIR Resource: AllergyIntolerance

o Medication Allergies

Patient Demographics - US Core Patient Profile

- FHIR Resource: Patient.name.given
 - o First Name
 - o Middle Name
- FHIR Resource: Patient.name.family
 - o Last Name
- FHIR Resource: Patient.name
 - o Previous Name
 - § name.period.end for <u>US Core 3.1.1 & 4.0.0</u>
 - § name.period.end
 - § AND name.use for <u>US Core 5.0.1</u>
- FHIR Resource: Patient.name.suffix
 - o Suffix
- FHIR Resource: US Core Birth Sex Extension
 - o Sex (Assigned at Birth)
- FHIR Resource: Patient.birthDate
 - o Date of Birth
- FHIR Resource: US Core Race Extension
 - o Race
- FHIR Resource: US Core Ethnicity Extension
 - o Ethnicity
- FHIR Resource: Patient.communication
 - o Preferred Language
- FHIR Resource: Patient.address
 - o Address
- FHIR Resource: Patient.telecom
 - o Phone Number

Problems - US Core **Condition** Profile

- FHIR Resource: Condition
 - o Problems

Procedures - US Core Procedure Profile

FHIR Resource: Procedure

o Procedures

<u>Provenance</u> - US Core <u>Provenance</u> Profile

FHIR Resource: Provenance.recorded

o Author Time Stamp

• FHIR Resource: Provenance.agent

o Author Organization

Smoking Status - US Core Smoking Status Observation Profile

FHIR Resource: Observation

o Smoking Status

<u>Unique Device Identifier(s) for Patient's Implantable Device(s)</u> - US Core <u>ImplantableDevice</u> Profile

FHIR Resource: Device

o Unique Device Identifier(s) for Patients' Implantable Device(s)

Vital Signs - FHIR Core VitalSigns Profile

- FHIR Resource: Observation
 - o Diastolic Blood Pressure
 - § Blood pressure systolic and diastolic (FHIR Core Profile)
 - o Systolic Blood Pressure
 - § <u>Blood pressure systolic and diastolic</u> (FHIR Core Profile)
 - o Body Height
 - § Body height (FHIR Core Profile)
 - o Body Weight
 - § Body weight (FHIR Core Profile)
 - o Heart Rate
 - § Heart rate (FHIR Core Profile)
 - o Respiratory Rate
 - § <u>Body temperature</u> (FHIR Core Profile)
 - o Body Temperature
 - § <u>Body temperature</u> (FHIR Core Profile)
 - o Pulse Oximetry
 - § <u>US Core Pulse Oximetry Profile</u> (Builds on FHIR Core Profile)
 - o Inhaled Oxygen Concentration
 - § <u>US Core Pulse Oximetry Profile</u> (Builds on FHIR Core Profile)
 - o BMI Percentile (2-20 years old)
 - § <u>US Core Pediatric BMI for Age Observation Profile</u> (Builds on FHIR Core Profile)
 - Weight-for-Length Percentile (Birth-36 months)
 - § <u>US Core Pediatric Weight for Height Observation Profile</u> (Builds on FHIR Core Profile)
 - o Occipital-frontal Head Circumference Percentile (Birth-36 months)
 - o <u>US Core Pediatric Head Occipital Frontal Circumference Observation Profile</u>
 (Builds on FHIR Core Profile)

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IX. Bundles and Paging

If you're searching for resources, the results will be returned in a bundle. A bundle has some information about the search overall, as well as the resources that met the criteria.

Only a set amount of resources will be returned in a bundle. If the number of resources that met the search criteria exceeds that number, the returned resources will be spread out over multiple pages of results. There's information at the top of bundle that tells you what you're currently looking at (self link), where the previous page is, and where the next page is. To get all resources that met your search criteria, you'll need to continue making requests using the next page url until you get to the end of the search set.

If you're on the first page of results, there won't be a previous link. If you're on the last page of results, there will be no next link.

If you've asked for provenance information with your search, each page of results will have both the resource and provenance records for those resources.

X. Binary and Attachments

Rather than making page sizes very small for DiagnosticReport and DocumentReference resources, we've opted to present attachment data as a link to a Binary resource. Searches should be executed against the DiagnosticReport and DocumentReference resources to locate the documents you'd like to obtain. Once you know which document you want to request, you can call the Binary url to obtain it.

XI. Bulk Data

CGM's FHIR implementation for Aprima and eMDs supports group compartment bulk data searches for back-end systems. More information about FHIR Bulk Data Access and Backend Services Authorization can be found at http://hl7.org/fhir/uv/bulkdata/STU1.0.1/

If you're implementing a back-end system that intends to use group-export, first identify which Group you'd like to pull data against.

Bulk Export calls are initiated by calling the \$export operation for the desired Group:

Ex. GET [base]/Group/<GroupID>/\$export

Bulk Data export is an asynchronous request. Once the request has been submitted, you'll be returned a url to check on the status of the request. Until the request has been completed, this url will simply indicate that the job is in progress. Once complete it will return a manifest that contains links to new line delimited json files (ndjson) for all qualifying resources that your application has been scoped for, as well as any errors that occurred.

The NDJSON files require an access token to retrieve.

If you want to cancel your bulk data request, you can post a delete to the status url that you were provided

Ex. DEL [base]/Group/{GroupID}/\$export/request-status/{RequestID}

Operations

\$export – Exports all clinical data for the specified group that your application has been scoped for. At this time CGM FHIR APIs do not support _type filtering.

GET [base]/Group/<GroupID>/\$export

XII. Service Base URL

A list of CGM customers that have enabled FHIR APIs can be found at https://identity.emdscloud.com/api/api-resource/fhir.

Information from this url is presented as JSON with DisplayName, Description, and the customer's base url.

```
Ex.
{
    "DisplayName": "The Burn Unit",
    "Description": "A clinic that's on FHIR",
    "ResourceURL": "https://myclinicurl.cgm.com/fhir/api"
}
```

XIII. Contact Us

For assistance and support, please contact the following -

Support Line: 877-564-4414

Website: www.emds.com