



MDRhythm Web API (FHIR) Documentation

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Introduction

This guide is written for third party developers, including patients, who are developing software applications for accessing Protected Health Information (PHI) based on the MDRhythm Web API documentation provided in this document.

MDRhythm Web API (MDRWebAPI) is developed using Restful Web Services and complies with FHIR standards (a set of clinical interoperability resources under the umbrella of the HL7 Standards Organization) to facilitate compatibility with the wide range of development platforms. MDRhythm WebAPI utilizes standard OAuth 2.0 client authentication to ensure that verified development partners are able to use the API in a secure environment to maintain patient privacy.

MDRhythm WebAPI follows Smart-On-FHIR authentication (OAuth2) and authorization as referenced at <http://hl7.org/fhir/smart-app-launch/index.html>

Product Name and Version

MDRhythm Version 8

Audience

Intended audience for this documentations are the people or developer who are familiar with JSON and HTTPS technology. All requests to MDRhythm WebAPI must be made using HTTPS (TLS 1.2 or above) and POST method to ensure compliance with OAuth 2.0 specifications and data privacy.

MDRhythm WebAPI provides standard HTTP responses for all requests. Following are some of the example of standard HTTP response codes:

- 200 (OK) - Successful HTTP request
- 400 (Bad Request) - Server cannot process the request potentially due to missing required data
- 401 (Unauthorized) - Authentication is required and has failed or has not been provided
- 405 (Method Not Allowed) - A request method is not supported
- 419 (Authentication Timeout) - OAuth token has exceeded its lifetime
- 500 (Internal Server Error) - An error occurred within the MDRhythm WebAPI server

Supported Standards

- US Core Version: US Core 5.0.1 / USCDI v2 (<https://www.hl7.org/fhir/us/core/>)
- SMART App Launch Version: SMART App Launch 2.0.0 (<http://hl7.org/fhir/smart-app-launch/>)
- Bulk Data Version: Bulk Data 2.0.0 (<http://hl7.org/fhir/uv/bulkdata/>)

SMART App Launch

Base URL: <https://mdrfhirapi.mdronline.net/>

This section of the document describes a set of foundational patterns based on OAuth 2.0 for client applications to authorize, authenticate, and integrate with FHIR based MDRhythm WebAPI systems. This specification is based on SMART App Launch 2.0.0 Standard for Trial Use (STU) as defined by HL7 FHIR.

Server Capabilities and Configuration

SMART configuration is made available from well-known endpoint in order to obtain launch context and request authorization to access FHIR resources. Well-known endpoint is exposed as defined in the SMART App Launch 2.0.0 STU2 standards.

Request:

GET <https://mdrfhirapi.mdronline.net/.well-known/smart-configuration>

Response:

```
{
  "issuer": "https://mdrfhirapi.mdronline.net",
  "jwks_uri": "https://mdrfhirapi.mdronline.net/.well-known/openid-configuration/jwks",
  "authorization_endpoint": "https://mdrfhirapi.mdronline.net/connect/authorize",
  "token_endpoint": "https://mdrfhirapi.mdronline.net/connect/token",
  "userinfo_endpoint": "https://mdrfhirapi.mdronline.net/connect/userinfo",
  "end_session_endpoint": "https://mdrfhirapi.mdronline.net/connect/endsession",
  "check_session_iframe": "https://mdrfhirapi.mdronline.net/connect/checksession",
  "revocation_endpoint": "https://mdrfhirapi.mdronline.net/connect/revocation",
  "introspection_endpoint": "https://mdrfhirapi.mdronline.net/connect/introspect",
  "device_authorization_endpoint": "https://mdrfhirapi.mdronline.net/connect/deviceauthorization",
  "frontchannel_logout_supported": true,
  "frontchannel_logout_session_supported": true,
  "backchannel_logout_supported": true,
  "backchannel_logout_session_supported": true,
```

```
"scopes_supported": [  
  "launch/patient",  
  "openid",  
  "fhirUser",  
  "offline_access",  
  "patient/Medication.rs",  
  "patient/AllergyIntolerance.rs",  
  "patient/CarePlan.rs",  
  "patient/CareTeam.rs",  
  "patient/Condition.rs",  
  "patient/Device.rs",  
  "patient/DiagnosticReport.rs",  
  "patient/DocumentReference.rs",  
  "patient/Encounter.rs",  
  "patient/Goal.rs",  
  "patient/Immunization.rs",  
  "patient/Location.rs",  
  "patient/MedicationRequest.rs",  
  "patient/Observation.rs",  
  "patient/Organization.rs",  
  "patient/Patient.rs",  
  "patient/Practitioner.rs",  
  "patient/Procedure.rs",  
  "patient/Provenance.rs",  
  "patient/PractitionerRole.rs",
```

```
"patient/ServiceRequest.rs",
"user/Medication.rs",
"user/AllergyIntolerance.rs",
"user/CarePlan.rs",
"user/CareTeam.rs",
"user/Condition.rs",
"user/Device.rs",
"user/DiagnosticReport.rs",
"user/DocumentReference.rs",
"user/Encounter.rs",
"user/Goal.rs",
"user/Immunization.rs",
"user/Location.rs",
"user/MedicationRequest.rs",
"user/Observation.rs",
"user/Organization.rs",
"user/Patient.rs",
"user/Practitioner.rs",
"user/Procedure.rs",
"user/Provenance.rs",
"user/PractitionerRole.rs",
"user/ServiceRequest.rs",
"offline_access"
],
"claims_supported": [],
```

```
"grant_types_supported": [
  "authorization_code",
  "client_credentials",
  "urn:ietf:params:oauth:grant-type:device_code"
],
"response_types_supported": [
  "code",
  "id_token",
  "token id_token"
],
"response_modes_supported": [
  "form_post",
  "query",
  "fragment"
],
"token_endpoint_auth_methods_supported": [
  "client_secret_basic",
  "client_secret_post"
],
"id_token_signing_alg_values_supported": [
  "RS256"
],
"subject_types_supported": [
  "pairwise",
  "public"
```

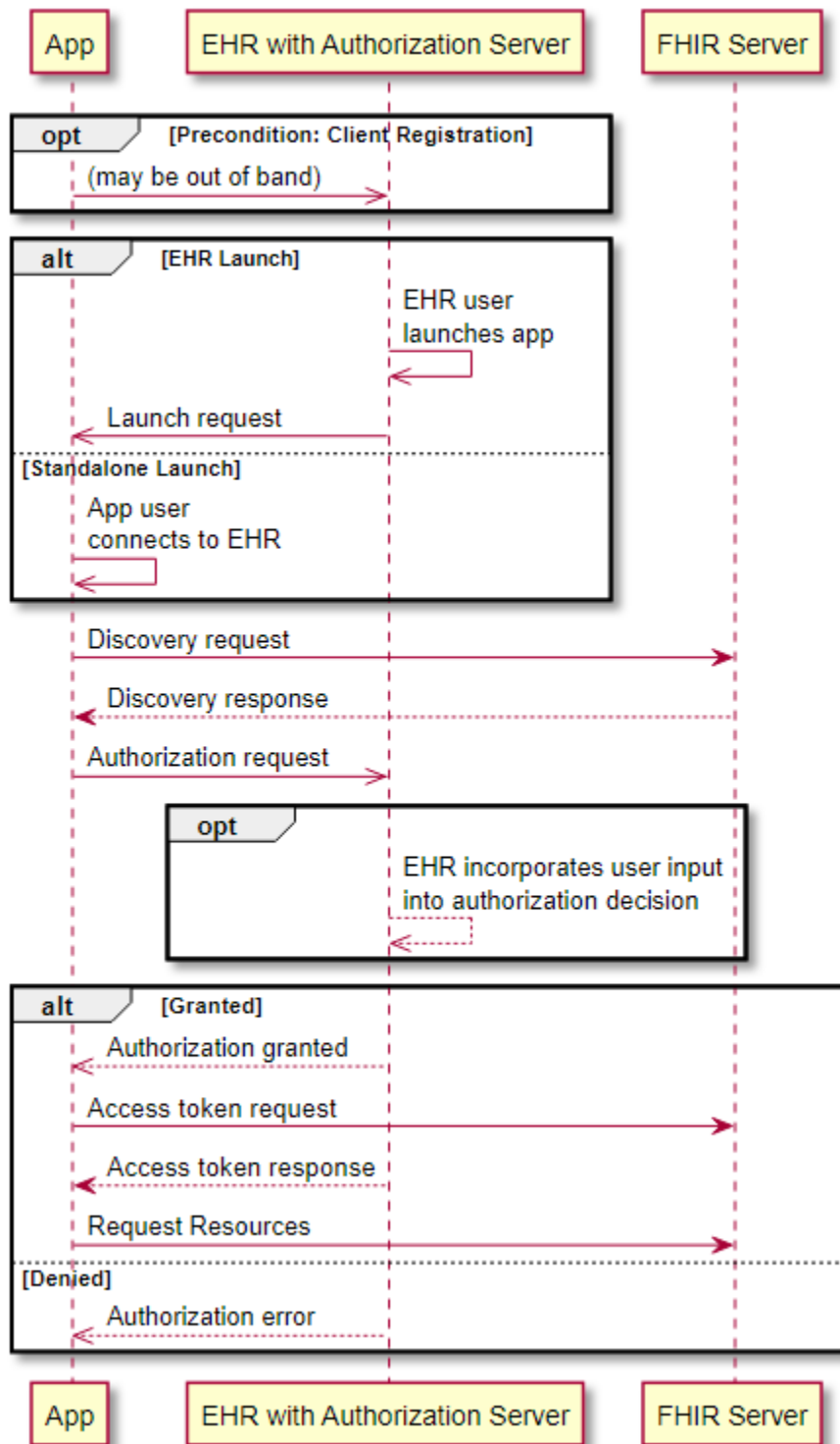


```
],  
"code_challenge_methods_supported": [  
  "S256"  
],  
"request_parameter_supported": true,  
"capabilities": [  
  "launch-ehr",  
  "permission-patient",  
  "permission-v2",  
  "client-public",  
  "client-confidential-symmetric",  
  "context-ehr-patient",  
  "sso-openid-connect",  
  "launch-standalone",  
  "context-standalone-patient",  
  "permission-offline",  
  "authorize-post"  
]  
}
```

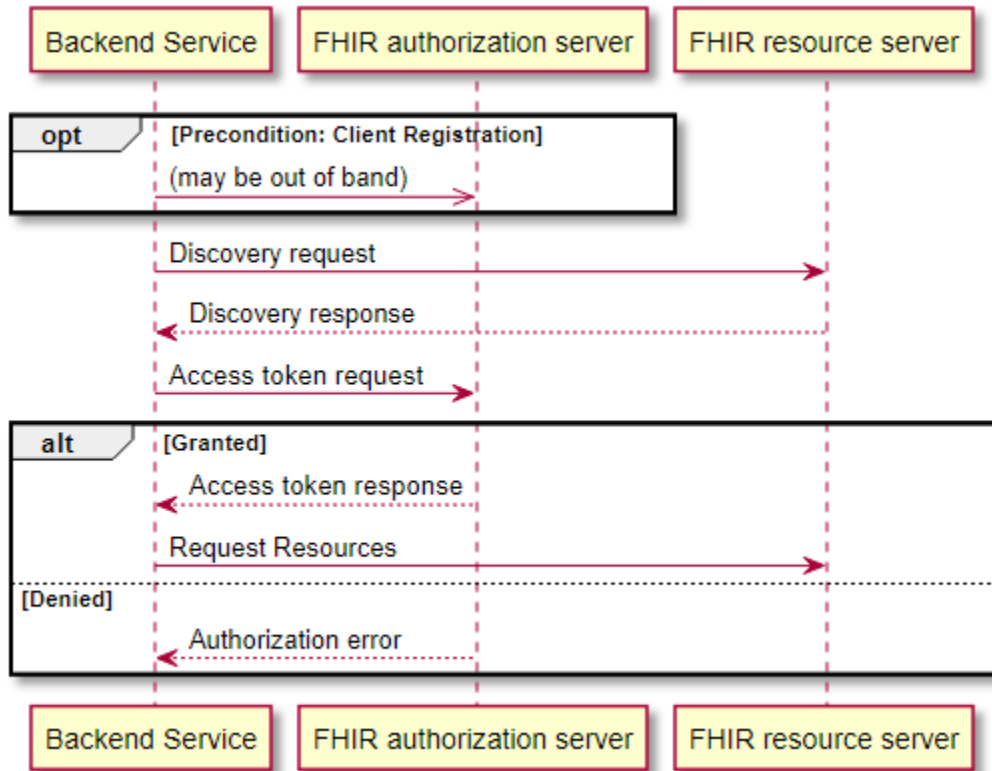
Client Authorization

MDRhythm WebAPI supports two patterns for client authorization.

1. SMART App Launch: Used for user-facing application. Below image shows steps and flow as per <http://hl7.org/fhir/smart-app-launch/app-launch.html>



- SMART Backend Services: Used to authorize headless or automated client application. Below image shows steps and flow as per <http://hl7.org/fhir/smart-app-launch/backend-services.html>



Client Authentication

Supported Client Authentication Patterns:

- Asymmetric (“private key JWT” authentication – <http://hl7.org/fhir/smart-app-launch/client-confidential-asymmetric.html>)
- Symmetric (“client secret”) authentication – <http://hl7.org/fhir/smart-app-launch/client-confidential-symmetric.html>
- Public Clients

Scopes

Scopes are used to define specific access permissions that can be delegated to a client application. List of supported scopes by MDRhythm WebAPI can be obtained from the well-known configuration endpoint.

Authentication and Authorization Requests

Base URL: <https://mdrfhirapi.mdronline.net/>

Authorization Endpoint

App requesting authorization is required to provide following parameters to the Authorize Endpoint.

Parameters

<code>response_type</code>	<code>required</code>	Fixed value: <code>code</code> .
<code>client_id</code>	<code>required</code>	The client's identifier.
<code>redirect_uri</code>	<code>required</code>	Must match one of the client's pre-registered redirect URIs.
<code>launch</code>	<code>conditional</code>	When using the <code>EHR Launch</code> flow, this must match the <code>launch</code> value received from the EHR. Omitted when using the <code>Standalone Launch</code> .
<code>scope</code>	<code>required</code>	Must describe the access that the app needs, including scopes like <code>patient/*.rs</code> , <code>openid</code> and <code>fhirUser</code> (if app needs authenticated patient identity) and either: a <code>launch</code> value indicating that the app wants to receive already-established launch context details from the EHR a set of launch context requirements in the form <code>launch/patient</code> , which asks the EHR to establish context on your behalf. See SMART on FHIR Access Scopes details.
<code>state</code>	<code>required</code>	An opaque value used by the client to maintain state between the request and callback. The authorization server includes this value when redirecting the user-agent back to the client. The parameter SHALL be used for preventing cross-site request forgery or session fixation attacks. The app SHALL use an unpredictable value for the state parameter with at least 122 bits of entropy (e.g., a properly configured random uuid is suitable).
<code>aud</code>	<code>required</code>	URL of the EHR resource server from which the app wishes to retrieve FHIR data. This parameter prevents leaking a genuine bearer token to a counterfeit resource server. (Note that in the case of an <code>EHR launch</code> flow, this <code>aud</code> value is the same as the launch's <code>iss</code> value.) Note that the <code>aud</code> parameter is semantically equivalent to the <code>resource</code> parameter defined in RFC8707 . SMART's <code>aud</code> parameter predates RFC8707 and we have decided not to rename it for reasons of backwards compatibility. We might consider renaming SMART's <code>aud</code> parameter in the future if implementer feedback indicates that alignment would be

Parameters

valuable. For the current release, servers SHALL support the `aud` parameter and MAY support a `resource` parameter as a synonym for `aud`.

`code_challenge` **required** This parameter is generated by the app and used for the code challenge, as specified by [PKCE](#). For example, when `code_challenge_method` is 'S256', this is the S256 hashed version of the `code_verifier` parameter. See [considerations-for-pkce-support](#).

`code_challenge_method` **required** Method used for the `code_challenge` parameter. Example value: `S256`. See [considerations-for-pkce-support](#).

MDRhythm Web API Authorization server will determine whether to grant or deny the access. This decision is communicated to the app. Authorization code is returned if access was granted while error will be returned if denying access. This response will cause the browser to navigate to the app's "redirect_uri" with the following URL parameters:

Parameters

`code` **required** The authorization code generated by the authorization server. The authorization code *must* expire shortly after it is issued to mitigate the risk of leaks.

`state` **required** The exact value received from the client.

Sample Request:

```
https://[BASE URL]/authorize?
```

```
  response_type=code&
```

```
  client_id=app-client-id&
```

```
  redirect_uri=https%3A%2F%2Fapp%2Fafter-auth&
```

```
  launch=xyz123&
```

```
  scope=launch+patient%2FObservation.rs+patient%2FPatient.rs+openid+fhirUser&
```

```
  state=98wrghuwuogerg97&
```

```
  aud=https://ehr/fhir
```

Sample Response:

https://app/after-auth?

code=123abc&

state=98wrghuwuogerg97

Token Endpoint

App will request token by using POST method to the authorization server's token endpoint. Post will require the usage of content-type "application/x-www-form-urlencoded".

Note: For public apps, authentication is not required.

Request

Parameters

<code>grant_type</code>	required	Fixed value: <code>authorization_code</code>
<code>code</code>	required	Code that the app received from the authorization server
<code>redirect_uri</code>	required	The same <code>redirect_uri</code> used in the initial authorization request
<code>code_verifier</code>	required	This parameter is used to verify against the <code>code_challenge</code> parameter previously provided in the authorize request.
<code>client_id</code>	conditional	Required for <code>public apps</code> . Omit for <code>confidential apps</code> .

Example: POST <https://mdrfhirapi.mdronline.net/connect/token>

Response

Parameters

<code>access_token</code>	required	The access token issued by the authorization server
---------------------------	----------	---

Parameters

<code>token_type</code>	required	Fixed value: <code>Bearer</code>
<code>expires_in</code>	recommended	Lifetime in seconds of the access token, after which the token SHALL NOT be accepted by the resource server
<code>scope</code>	required	Scope of access authorized. Note that this can be different from the scopes requested by the app.
<code>id_token</code>	optional	Authenticated user identity and user details, if requested
<code>refresh_token</code>	optional	Token that can be used to obtain a new access token, using the same or a subset of the original authorization grants

Example: Response in JSON format.

```
{
  "id_token":
  "eyJhbGciOiJIJSUzI1NiIsImtpZCI6IjEwOEJDNDC5QTFcN0QzOTQyOUM3MzI3OTUxNkRBQzJClwidHlwIjoiaSldUln0.eyJ1YmYiOiJlImlmV4cCI6MTY3MDE1NzI1NywiaXNzIjoiaHR0cHM6Ly9tZHIjmaGlyYXBpLm1kcm9ubGluZS5uZXQiLCJhdWQiOiJ3ZWJfdmld2VyliiwiaWF0IjoxNjcwMTUzOTUzLCJhdF9oYXNoljoiM25pWENZMzltZDZ2UTlpSElWdylsInNfaGFzaCI6ImEwazRqNWZVY0lCcFhqTUUzZIRQRiEiLCJzaWQiOiJlIjFQOE2NDNCOUxMdc5RDM5QTUzOEQ3QTg3RURFQzZhEmYlslNnN1YiI6IndlYiY92aWV3ZXliLCJhdXR0X3RpbWUiOiJlIjE2NzAxNTY5NTYsImk6IjE6ImxvY2FslwiczGF0aWVudCI6IiIsImZoaXJvc2VyIjoiaHR0cHM6Ly9tZHIjmaGlyYXBpLm1kcm9ubGluZS5uZXQvUGF0aWVudC83MGE4NjdkMy0zMWEzLTRkZmUtYjBmMi01NWVIMzU0ZmY0ZjciLCJhbXNzIjoiaSldkklI19.X2leS9c72yGX3vJ-4Xzb1WQDY3x168ApRvXo_XOW7zuog_cEsrszqk_BUCAsw9-xSUEqng5WjcyDa8sSt8CZuNaBgLoe2AgWQUfCZgYIH2c7c9qIWwSviSnIDK-42WPnsl4eOgx5wivbKgRjZukGUMzhF30VtYxBde37wzliXrsBIDTKvBnYsC_KyFUznHQzHlBZ9JUtbN4OFt7VUX7tdyyBsvs0QpYoUwQnW4bbI4FAP4E0IC7gvZL27PaLPfbrWU4xT-7uNptRIPpwpNB5DjMbjNx_0l9lpldMe8_zR0dyRhZdXussk1s6zE22r1tMRoTzAy6pJjHdpt8lukTuQ",
  "access_token":
  "eyJhbGciOiJIJSUzI1NiIsImtpZCI6IjEwOEJDNDC5QTFcN0QzOTQyOUM3MzI3OTUxNkRBQzJClwidHlwIjoiaSldkklI19.X2leS9c72yGX3vJ-4Xzb1WQDY3x168ApRvXo_XOW7zuog_cEsrszqk_BUCAsw9-xSUEqng5WjcyDa8sSt8CZuNaBgLoe2AgWQUfCZgYIH2c7c9qIWwSviSnIDK-42WPnsl4eOgx5wivbKgRjZukGUMzhF30VtYxBde37wzliXrsBIDTKvBnYsC_KyFUznHQzHlBZ9JUtbN4OFt7VUX7tdyyBsvs0QpYoUwQnW4bbI4FAP4E0IC7gvZL27PaLPfbrWU4xT-7uNptRIPpwpNB5DjMbjNx_0l9lpldMe8_zR0dyRhZdXussk1s6zE22r1tMRoTzAy6pJjHdpt8lukTuQ"
}
```

```
9uLnJzIiwicGF0aWVudC9BbGxlcmd5SW50b2xlcmFuY2UucnMiLCJwYXRpZW50L0NhcmVQbGFuLnJzIiwicGF0aWVudC9DYXJIVGVhbS5ycylsInBhdGllbnQvQ29uZGI0aW9uLnJzIiwicGF0aWVudC9EZXXpY2UucnMiLCJwYXRpZW50L0RyY29uZGI0aW9uLnJzIiwicGF0aWVudC9FbMnvdW50ZXIucnMiLCJwYXRpZW50L0dvYWwucnMiLCJwYXRpZW50L0ltbXVuaXphdGlvbi5ycylsInBhdGllbnQvTG9jYXRpb24ucnMiLCJwYXRpZW50L01lZGljYXRpb25SZXF1ZXN0LnJzIiwicGF0aWVudC9PYnNlcnZhdGlvbi5ycylsInBhdGllbnQvT3JnYW5pemF0aW9uLnJzIiwicGF0aWVudC9QYXRpZW50LnJzIiwicGF0aWVudC9QcmFjdGl0aW9uZXIucnMiLCJwYXRpZW50L1Byb2NlZHVyZS5ycylsInBhdGllbnQvUHJvdmVuYW5jZS5ycylsInBhdGllbnQvUHJhY3RpdGlvbmVvUm9sZS5ycjdlLCJhbXliOlsicHdkll19.XMoYBeGwALgz92Ni6lxZjtSEc6n-PjY7aXsG_X17F9dDCZ9qeEvTtfln52CxAG_WADcnhx7-UkJAsxi07hl3V4ObJpQlxUCN3qIHNNmirMYeudsDJNnSapEmdibTAVan9BuiZD9_4PoYzIKpd5D5AimovR8klJSmjQ_TvMw57JfMCLcUX1Q8x0-WRXHiaCehCsBhyvLKYdgBTIIIBal8uqGK47ZM2_RF89f1gSadWFXM9w8H1e-Rg7wNRL7GISfp54KSyPudq3yfbXToljCHVKfRHsgEOTty0mMHN--E5SO04-YU2gqUrvZHGX0-hlo5TXfClnpWU_UAdvW3aN06ag",

"expires_in": 3600,

"token_type": "Bearer",

"refresh_token": "C2E2BF5CAFE7B25067C9C7EA13FDC9EF0FD17154A996BDC786693D797587E199",

"scope": "launch/patient openid fhirUser offline_access patient/Medication.rs
patient/AllergyIntolerance.rs patient/CarePlan.rs patient/CareTeam.rs patient/Condition.rs
patient/Device.rs patient/DiagnosticReport.rs patient/DocumentReference.rs patient/Encounter.rs
patient/Goal.rs patient/Immunization.rs patient/Location.rs patient/MedicationRequest.rs
patient/Observation.rs patient/Organization.rs patient/Patient.rs patient/Practitioner.rs
patient/Procedure.rs patient/Provenance.rs patient/PractitionerRole.rs",

"patient": "70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",

"need_patient_banner": false,

"smart_style_url": "UNK"
}
```


MDRhythm WebAPI Function/Resource (FHIR API)

All requests to FHIR resources will require a valid token. You must supply a token within the request header.

MDRhythm WebAPI provides a set of methods to retrieve demographics and or clinical information. All calls to these FHIR Resources are made using GET method.

All resources will return JSON formatted response conforming to US Core 5.0.1 profiles.

Allergies and Intolerances

US Core AllergyIntolerance Profile

GET [https://\[Base URL\]/AllergyIntolerance?patient={id}](https://[Base URL]/AllergyIntolerance?patient={id})

Example: <https://mdrfhirapi.mdronline.net/AllergyIntolerance?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
  "meta": {
    "lastUpdated": "2022-12-04T12:32:09Z"
  },
  "type": "searchset",
  "total": 4,
  "link": [
    {
      "relation": "self",
      "url": "https://mdrfhirapi.mdronline.net/AllergyIntolerance?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ],
}
```

```
"entry": [
  {
    "search": {
      "mode": "match"
    },
    "fullUrl": "https://mdrfhirapi.mdronline.net/AllergyIntolerancedata/1680-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "resource": {
      "resourceType": "AllergyIntolerance",
      "id": "1680-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "meta": {
        "profile": [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-allergyintolerance"
        ]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p>Mould</p><p>Start Date:2022-11-23</p></div>"
      },
      "identifier": [
        {
          "value": "1680"
        }
      ],
      "clinicalStatus": {
```

```
"coding": [  
  {  
    "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical",  
    "code": "active"  
  }  
],  
},  
"verificationStatus": {  
  "coding": [  
    {  
      "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-verification",  
      "code": "confirmed"  
    }  
  ]  
},  
"type": "allergy",  
"category": [  
  "environment"  
],  
"criticality": "low",  
"code": {  
  "coding": [  
    {  
      "system": "http://snomed.info/sct",  
      "code": "84489001",
```

```

    "display": "Mould"
  }
]
},
"patient": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "2022-11-23",
"recordedDate": "2022-11-23",
"recorder": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"asserter": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"lastOccurrence": "2022-11-23"
}
},
{
  "search": {
    "mode": "match"
  },
  "fullUrl": "https://mdrfhirapi.mdronline.net/AllergyIntolerancedata/1675-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "AllergyIntolerance",

```

```
"id": "1675-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
"meta": {
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-allergyintolerance"
  ]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p>Fish</p><p>Start Date:1941-10-14</p></div>"
},
"identifier": [
  {
    "value": "1675"
  }
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical",
      "code": "active"
    }
  ]
},
"verificationStatus": {
  "coding": [
```

```
{
  "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-verification",
  "code": "confirmed"
}
],
},
"type": "allergy",
"category": [
  "food"
],
"criticality": "low",
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "90580008",
      "display": "Fish"
    }
  ]
},
"patient": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "1941-10-14",
"recordedDate": "2022-11-23",
```

```
"recorder": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"asserter": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"lastOccurrence": "2022-11-23"
}
},
{
  "search": {
    "mode": "match"
  },
  "fullUrl": "https://mdrfhirapi.mdronline.net/AllergyIntolerancedata/1678-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "AllergyIntolerance",
    "id": "1678-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-allergyintolerance"
      ]
    },
    "text": {
      "status": "generated",
```

```
"div": "<div xmlns=\"http://www.w3.org/1999/xhtml\"><p>House dust mite allergy</p><p>Start Date:1941-10-14</p></div>"
```

```
},
```

```
"identifier": [
```

```
{
```

```
  "value": "1678"
```

```
}
```

```
],
```

```
"clinicalStatus": {
```

```
  "coding": [
```

```
  {
```

```
    "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical",
```

```
    "code": "active"
```

```
  }
```

```
  ]
```

```
},
```

```
"verificationStatus": {
```

```
  "coding": [
```

```
  {
```

```
    "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-verification",
```

```
    "code": "confirmed"
```

```
  }
```

```
  ]
```

```
},
```

```
"type": "allergy",
```

```
"category": [
```



```
"food"
],
"criticality": "low",
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "195819005",
      "display": "House dust mite allergy"
    }
  ]
},
"patient": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "1941-10-14",
"recordedDate": "2022-11-23",
"recorder": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"asserter": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"lastOccurrence": "2022-11-23"
}
```

```

},
{
  "search": {
    "mode": "match"
  },
  "fullUrl": "https://mdrfhirapi.mdronline.net/AllergyIntolerancedata/1679-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "AllergyIntolerance",
    "id": "1679-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-allergyintolerance"
      ]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\"><p>Latex</p><p>Start Date:1941-10-14</p></div>"
    },
    "identifier": [
      {
        "value": "1679"
      }
    ],
    "clinicalStatus": {

```

```
"coding": [  
  {  
    "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-clinical",  
    "code": "inactive"  
  }  
],  
,  
"verificationStatus": {  
  "coding": [  
    {  
      "system": "http://terminology.hl7.org/CodeSystem/allergyintolerance-verification",  
      "code": "confirmed"  
    }  
  ]  
},  
"type": "allergy",  
"category": [  
  "medication"  
],  
"criticality": "low",  
"code": {  
  "coding": [  
    {  
      "system": "http://snomed.info/sct",  
      "code": "1111088007",
```

```
    "display": "Latex"
  }
]
},
"patient": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "1941-10-14",
"recordedDate": "2022-11-23",
"recorder": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"asserter": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"lastOccurrence": "2022-11-23",
"note": [
  {
    "text": "skin rash"
  }
],
"reaction": [
  {
    "manifestation": [
      {
```

```
"coding": [  
  {  
    "system": "http://snomed.info/sct",  
    "code": "271807003",  
    "display": "skin rash"  
  }  
],  
"text": "skin rash"  
}  
]  
}  
]  
}  
}  
]  
}
```

Assessment and Plan of Treatment

US Core CarePlan Profile

GET [https://\[Base URL\]/CarePlan?category=assess-plan&patient={id}](https://[Base URL]/CarePlan?category=assess-plan&patient={id})

Example: <https://mdrfhirapi.mdronline.net/CarePlan?category=assess-plan&patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{  
  "resourceType": "Bundle",  
  "id": "bundle-search-result",
```

```
"meta": {
  "lastUpdated": "2022-12-04T12:32:09Z"
},
"type": "searchset",
"total": 1,
"link": [
  {
    "relation": [
      "self",
      "next"
    ],
    "url": [
      "https://mdrfhirapi.mdronline.net/CarePlan?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "https://mdrfhirapi.mdronline.net/CarePlan?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    ]
  }
],
"entry": [
  {
    "fullUrl": "https://mdrfhirapi.mdronline.net/CarePlan/11470-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "resource": {
      "resourceType": "CarePlan",
      "id": "11470-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "meta": {
        "profile": [
```

```

    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-careplan"
  ]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">Care Plan Details</div>"
},
"status": "completed",
"intent": "order",
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/careplan-category",
        "code": "assess-plan"
      },
      {
        "system": "http://snomed.info/sct",
        "code": "53950000",
        "display": "Respiratory Therapy"
      }
    ],
    "text": "Respiratory Therapy"
  }
],

```

```
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7092-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"period": {
  "start": "2021-03-24"
},
"careTeam": [
  {
    "reference": "CareTeam/14"
  }
],
"activity": [
  {
    "detail": {
      "code": {
        "coding": [
          {
            "system": "http://snomed.info/sct",
            "code": "Recommendation to avoid exercise",
            "display": "304510005"
          }
        ]
      }
    }
  }
],
```



```
    "text": "304510005"
  },
  "status": "completed"
}
},
{
  "detail": {
    "code": {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "Deep breathing and coughing exercises",
          "display": "371605008"
        }
      ],
      "text": "371605008"
    },
    "status": "completed"
  }
}
]
}
}
]
```

Care Team Members

US Core CareTeam Profile

GET [https://\[Base URL\]/CareTeam?patient={id}&status=proposed](https://[Base URL]/CareTeam?patient={id}&status=proposed)

Example: <https://mdrfhirapi.mdronline.net/CareTeam?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7&status=proposed>

Response: 200 (Success)

```
{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
  "meta": {
    "lastUpdated": "2022-12-04T12:32:09Z",
    "type": "searchset",
    "total": 0,
    "link": [
      {
        "relation": "self",
        "url": "https://mdrfhirapi.mdronline.net/Encounter?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
      }
    ]
  },
  "entry": {
    "fullUrl": "urn:uuid:2866af9c-137d-4458-a8a9-eeee0ce5583",
    "resource": {
      "OperationOutcome": {
        "id": "warning",
        "text": {
```

```

    "status": "generated",

    "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">There is no matching Data found for
patient for given search criteria</div>"

  },

  "issue": {

    "severity": "warning",

    "code": "not-found",

    "details": {

      "text": "There is no matching Data found for patient for given search criteria"

    }

  }

},

"search": {

  "mode": "outcome"

}

}

}

```

Clinical Notes

US Core DocumentReference Profile & US Core DiagnosticReport Profile for Report and Note Exchange

GET [https://\[Base URL\]/DocumentReference?patient={id}](https://[Base URL]/DocumentReference?patient={id})

Example: <https://mdrfhirapi.mdronline.net/DocumentReference?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```

{

  "resourceType": "Bundle",

  "id": "bundle-search-result",

```

```
"meta": {
  "lastUpdated": "2022-12-04T12:32:11Z"
},
"type": "searchset",
"total": 13,
"link": [
  {
    "relation": "self",
    "url": "https://mdrfhirapi.mdronline.net/DocumentReference?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"entry": [
  {
    "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7101-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "resource": {
      "resourceType": "DocumentReference",
      "id": "7101-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "meta": {
        "versionId": "1",
        "lastUpdated": "2022-12-04T12:32:11Z",
        "source": "#E1VolYkq84D3M96u",
        "profile": [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
        ]
      }
    }
  }
]
```

```
},
"identifier": [
  {
    "value": "7101-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "11506-3",
      "display": "Progress note"
    }
  ],
  "text": "Progress note"
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
        "display": "Clinical Note"
      }
    ]
  }
]
```

```

    ]
  }
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2022-12-03T12:00:00Z",
"author": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
"custodian": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"U3ViamVjdGl2ZSAgICAKQWxsZXJnaWVzIApFZ2dzLCBGaXNoLCBib3VzZSBkdXN0IG1pdGUgYWxsZXJneSw
gTW91bGQsIFRyZWUgbnV0cyAod2FsbnV0cywgcGVjYW5zLCBwaXN0YWN0aW9zLCBmaWxiZXJ0cywgY2F
zaGV3cywgYWxtb25kcywgZXRjLikKT2JqZWNOaXZlOiAgIApQcm9jZWR1cmVzICAKUVJTIGR1ciB7RUtHIGxIY
WR9IEV4YW1wbGUgIC0gOiBPcmRlcmVkiAoKQXNzZXNzbWVudCAgICAKUHJvY2VkdXJlIENvZGVzICAKCIBs
YW4gICAgCg=="

```

```

    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "mimeType Sufficient"
    }
  },
  "context": {
    "encounter": [
      {
        "reference": "Encounter/7101-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
      }
    ],
    "period": {
      "start": "2022-12-03T12:00:00Z",
      "end": "2022-12-03T12:00:00Z"
    }
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",

```

```
"id": "7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
"meta": {
  "versionId": "1",
  "lastUpdated": "2022-12-04T12:32:11Z",
  "source": "#E1VolYkq84D3M96u",
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
  ]
},
"identifier": [
  {
    "value": "7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "11506-3",
      "display": "Progress note"
    }
  ],
  "text": "Progress note"
},
```



```
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
        "display": "Clinical Note"
      }
    ]
  }
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2022-10-05T12:00:00Z",
"author": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
"custodian": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
```

```

"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"U3ViamVjdGl2ZSAglCAKQWxsZXJnaWVzIcAgCk9iamVjdGl2ZTogICAKVmI0YWxzIAPUZw1wZXJhdHVyZTo
gMzcuNzkgwrBDLCAGlCBQdWxzZS1PwDogMCA7IDc3IApBc3Nlc3NtZW50ICAgIApEaWFnbm9zaXMgQ29k
ZXMgCjg4ODA1MDA5IENocm9uaWMgQ29uZ2VzdGl2ZSBIZWFydCBGYWlscXJlICAgICAgICAgICAgICAgIC
glCAglCAglCAglCAgOiAKCgpQcm9jZWR1cmUgQ29kZXMgCjE4NTM0NzAwMSBFbmnVdW50ZXIglZm9yIHB
yb2JsZW0KCIBsYW4glCAgCg=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "mimeType Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ],
  "period": {
    "start": "2022-10-05T12:00:00Z",
    "end": "2022-10-05T12:00:00Z"
  }
}

```

```

    }
  }
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",
    "id": "7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "versionId": "1",
      "lastUpdated": "2022-12-04T12:32:11Z",
      "source": "#E1VolYkq84D3M96u",
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
      ]
    },
    "identifier": [
      {
        "value": "7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [

```

```
{
  "system": "http://loinc.org",
  "code": "11506-3",
  "display": "Progress note"
},
"text": "Progress note"
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
        "display": "Clinical Note"
      }
    ]
  }
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2022-09-10T12:00:00Z",
"author": [
  {
```

```
"reference": "Practitioner/14",
"display": "Dr. Max Burger"
}
],
"custodian": {
"reference": "Organization/1",
"display": "TechSoft, Inc. DBA Medical Systems"
},
"content": [
{
"attachment": {
"contentType": "text/plain",
"data":
"U3ViamVjdGI2ZSAGIApBbGxlcmdpZXMgIApPYmpIY3RpdmU6ICAKVml0YWxzIApCUDogMTI5Lzg1IG1tSGc
gTCBBcm0gU2I0dGluZwpBc3Nlc3NtZW50ICAgCkRlYm9uZ3NpcyBDb2RlcyAKODg4MDUwMDkgQ2hyb25
pYyBDb25nZXN0aXZlIEhlYXJ0IEZhaWx1cmUgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAg
ICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAg
ZHVyZSBDZ2RlcyAKMTg1MzQ3MDAxIEVudm91bnRlciBmb3IgcHJvYmxlQoKUGxhbiAgIAo="
},
"format": {
"system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
"code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
"display": "mimeType Sufficient"
}
}
],
"context": {
"encounter": [
```

```

    {
      "reference": "Encounter/7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ],
  "period": {
    "start": "2022-09-10T12:00:00Z",
    "end": "2022-09-10T12:00:00Z"
  }
}
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",
    "id": "7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "versionId": "1",
      "lastUpdated": "2022-12-04T12:32:11Z",
      "source": "#E1VolYkq84D3M96u",
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
      ]
    },
    "identifier": [

```

```
{
  "value": "7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
}
],
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "11506-3",
      "display": "Progress note"
    }
  ],
  "text": "Progress note"
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
        "display": "Clinical Note"
      }
    ]
  }
]
}
```

```

    ],
    "subject": {
      "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    },
    "date": "2022-06-11T12:00:00Z",
    "author": [
      {
        "reference": "Practitioner/14",
        "display": "Dr. Max Burger"
      }
    ],
    "custodian": {
      "reference": "Organization/1",
      "display": "TechSoft, Inc. DBA Medical Systems"
    },
    "content": [
      {
        "attachment": {
          "contentType": "text/plain",
          "data":
            "U3ViamVjdGl2ZSAgICAKQWxsZXJnaWVzICAgCk9iamVjdGl2ZTogIApWaxRhbHMgCIRIbXBbcmF0dXJlOiAz
            Ny43OSDCsEMKQXNzZXNzbWVudCAGlCAKRGIhZ25vc2lzlENvZGVzIAoxOTU2NjIwMDkgQWN1dGUgVmly
            YWwgUGhcnluZ2l0aXMgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIC
            ENvZGVzIAoxNjI2NmMwMDAgR2VuZXJhbCBleGFtaW5hdGlubiBvZiBwYXRpZW50CgpQbGFuICAgIAo="
        }
      }
    ],
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",

```



```

    "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
    "display": "mimeType Sufficient"
  }
}
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ],
  "period": {
    "start": "2022-06-11T12:00:00Z",
    "end": "2022-06-11T12:00:00Z"
  }
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",
    "id": "7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "versionId": "1",

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"lastUpdated": "2022-12-04T12:32:11Z",
"source": "#E1VolYkq84D3M96u",
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
]
},
"identifier": [
  {
    "value": "7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "11506-3",
      "display": "Progress note"
    }
  ],
  "text": "Progress note"
},
"category": [
  {
    "coding": [
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{
  "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
  "code": "clinical-note",
  "display": "Clinical Note"
}
]
}
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2022-06-01T12:00:00Z",
"author": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
"custodian": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
"content": [
  {
    "attachment": {
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```

    "contentType": "text/plain",

    "data":
    "U3ViamVjdGl2ZSAglApBbGxlcmdpZXMglApBc3Nlc3NtZW50ICAgCkRpYWdub3NpcyBDb2RlcyAKMTk1Nj
    YyMDA5IEFjdXRlIFZpcmFsIFBoYXJ5bmdpdGlzICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgI
    ApQcm9jZWR1cmUgQ29kZXMgCjE2MjY3MzAwMCBHZW5lcmFslGV4YW1pbmF0aW9uIG9mIHhdGllbn
    QKCIBsYW4glCAK"

    },

    "format": {

        "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",

        "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",

        "display": "mimeType Sufficient"

    }

    },

    "context": {

        "encounter": [

            {

                "reference": "Encounter/7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"

            }

        ],

        "period": {

            "start": "2022-06-01T12:00:00Z",

            "end": "2022-06-01T12:00:00Z"

        }

    }

    },

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{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7082-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",
    "id": "7082-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "versionId": "1",
      "lastUpdated": "2022-12-04T12:32:11Z",
      "source": "#E1VolYkq84D3M96u",
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
      ]
    },
    "identifier": [
      {
        "value": "7082-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "11506-3",
          "display": "Progress note"
        }
      ]
    }
  }
}

```

```
    }
  ],
  "text": "Progress note"
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
        "display": "Clinical Note"
      }
    ]
  }
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2022-05-17T12:00:00Z",
"author": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
```



```
}
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/7082-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ],
  "period": {
    "start": "2022-05-17T12:00:00Z",
    "end": "2022-05-17T12:00:00Z"
  }
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7080-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",
    "id": "7080-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "versionId": "1",
      "lastUpdated": "2022-12-04T12:32:11Z",
      "source": "#E1VolYkq84D3M96u",
      "profile": [
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"http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
]
},
"identifier": [
  {
    "value": "7080-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "11506-3",
      "display": "Progress note"
    }
  ],
  "text": "Progress note"
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
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```

      "display": "Clinical Note"
    }
  ]
}
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2022-04-07T12:00:00Z",
"author": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
"custodian": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"U3ViamVjdGl2ZSAGlApBbGxlcmdpZXMglApBc3Nlc3NtZW50ICAgClByb2NlZHVyZSBDb2RlcyAgCjQxMDYy
MDAwOSBxZWxsIGNoaWxkiHZpc2l0CgpQbGFuICAgCg=="
    }
  }
]

```

```

    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "mimeType Sufficient"
    }
  },
  "context": {
    "encounter": [
      {
        "reference": "Encounter/7080-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
      }
    ],
    "period": {
      "start": "2022-04-07T12:00:00Z",
      "end": "2022-04-07T12:00:00Z"
    }
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",

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"id": "7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
"meta": {
  "versionId": "1",
  "lastUpdated": "2022-12-04T12:32:11Z",
  "source": "#E1VoIYkq84D3M96u",
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
  ]
},
"identifier": [
  {
    "value": "7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "11506-3",
      "display": "Progress note"
    }
  ]
},
"text": "Progress note"
},
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"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
        "display": "Clinical Note"
      }
    ]
  }
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2022-03-29T12:00:00Z",
"author": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
"custodian": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
```

```

"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"U3ViamVjdGl2ZSAgCkFsbGVyZ2llcyAKQXNzZXNzbWVudCAgCkRpYWdub3NpcyBDdb2RlcyAKODg4MDUw
MDkgQ2hyb25pYyBDdb25nZXN0aXZlEhYXJ0IEZhaWx1cmUglCAglCAglCAglCAglCAglCAglCAglCAglCA
6lApQcm9jZWR1cmUgQ29kZXMgCjE4NTM0NzAwMSBFbmNvdW50ZXIgzM9yIHByb2JsZW0KCIBsYW4gIA
o="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "mimeType Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ],
  "period": {
    "start": "2022-03-29T12:00:00Z",
    "end": "2022-03-29T12:00:00Z"
  }
}

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```

    }
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7081-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",
    "id": "7081-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "versionId": "1",
      "lastUpdated": "2022-12-04T12:32:11Z",
      "source": "#E1VolYkq84D3M96u",
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
      ]
    },
    "identifier": [
      {
        "value": "7081-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {

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"system": "http://loinc.org",
"code": "11506-3",
"display": "Progress note"
}
],
"text": "Progress note"
},
"category": [
{
"coding": [
{
"system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
"code": "clinical-note",
"display": "Clinical Note"
}
]
}
],
"subject": {
"reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2022-03-21T12:00:00Z",
"author": [
{
"reference": "Practitioner/14",
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```

    "display": "Dr. Max Burger"
  }
],
"custodian": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"U3ViamVjdGl2ZSAgICAKQWxsZXJnaWVzICAgCkFzc2Vzc21lbnQgICAgCkRyYWdub3NpcyBDb2RlcyAgCjE5
NTY2MjAwOSBBY3V0ZSBWaXJhbCBQaGFyeW5naXRpcyAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgI
CAgICAgOiAKUHJvY2VkdXJlIENvZGVzICAKNDEwNjllwMDA5IFdlbGwgY2hpbGQgdmIzaXQKClBsYW4gICAgC
g=="
    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "mimeType Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {

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```

    "reference": "Encounter/7081-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"period": {
  "start": "2022-03-21T12:00:00Z",
  "end": "2022-03-21T12:00:00Z"
}
}
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7075-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",
    "id": "7075-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "versionId": "1",
      "lastUpdated": "2022-12-04T12:32:11Z",
      "source": "#E1VolYkq84D3M96u",
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
      ]
    },
    "identifier": [
      {

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"value": "7075-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
}
],
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "11506-3",
      "display": "Progress note"
    }
  ],
  "text": "Progress note"
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
        "display": "Clinical Note"
      }
    ]
  }
],
```

```

"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2022-03-09T12:00:00Z",
"author": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
"custodian": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"U3ViamVjdGl2ZSAgICAKQWxsZXJnaWVzICAgClByb2NlZHVyZXMglApEWEEgRmVtdXltTCBBck1hc3MgQk
1EIEV4YW1wbGUKMC42MzEKCKFzc2Vzc21lbnQglCAgClByb2NlZHVyZSBDb2RlcyAKNDEwNjIwMDA5IFdlb
GwgY2hpbGQgdmlzaXQKIAoKUGxhbiAglCAK"
    }
  },
  {
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "mimeType Sufficient"
    }
  }
]

```

```

    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/7075-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ],
  "period": {
    "start": "2022-03-09T12:00:00Z",
    "end": "2022-03-09T12:00:00Z"
  }
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7074-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",
    "id": "7074-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "versionId": "1",
      "lastUpdated": "2022-12-04T12:32:11Z",
      "source": "#E1VolYkq84D3M96u",

```

```
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
]
},
"identifier": [
  {
    "value": "7074-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "11506-3",
      "display": "Progress note"
    }
  ],
  "text": "Progress note"
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
```

```
    "code": "clinical-note",
    "display": "Clinical Note"
  }
]
}
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2022-01-26T12:00:00Z",
"author": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
"custodian": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"U3ViamVjdGl2ZSAGlCAglCAgCkFsbGVyZ2llcyAgICAgICAKUHJvY2VkdXJlcyAgCIB1bHNlIGludGVuc2l0eSBQ
```



```
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7092-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",
    "id": "7092-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "versionId": "1",
      "lastUpdated": "2022-12-04T12:32:11Z",
      "source": "#E1VolYkq84D3M96u",
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
      ]
    },
    "identifier": [
      {
        "value": "7092-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
      }
    ],
    "status": "superseded",
    "type": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "11506-3",
          "display": "Progress note"
        }
      ]
    }
  }
}
```

```
    }
  ],
  "text": "Progress note"
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
        "display": "Clinical Note"
      }
    ]
  }
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"date": "2021-03-24T12:00:00Z",
"author": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
```

```

"custodian": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"U3ViamVjdGI2ZSAglCAKQWxsZXJnaWVzIApObyBrbm93biBhbGxlcmdpZXMKT2JqZWNOaXZIOiAglApBc3
Nlc3NtZW50ICAgIAPeaWFnbm9zaXMgQ29kZXMglAo1Mzk1MDAwMCBSZXNwaXJhdG9yeSBUaGVyYXB5I
CAglCAglCAglCAglCAglCAglCAglCAglCAglCAglCAglCAglCAglCAglCAglCAglCAglCAglCAglCAglDogUmVjb21tZW5kYXRpb24gdG8gYXZva
WQgZXhlcmNpc2UgRGVlcCBicmVhdGhpbmcgYW5kIGNvdWdoaW5nIGV4ZXJjaXNlcwoKUGxhbiAgICAk"

    },
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",
      "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
      "display": "mimeType Sufficient"
    }
  }
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/7092-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ]
},

```

```

    "period": {
      "start": "2021-03-24T12:00:00Z",
      "end": "2021-03-24T12:00:00Z"
    }
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/DocumentReference/7086-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "DocumentReference",
    "id": "7086-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "versionId": "1",
      "lastUpdated": "2022-12-04T12:32:11Z",
      "source": "#E1VolYkq84D3M96u",
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference"
      ]
    },
    "identifier": [
      {
        "value": "7086-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
      }
    ],
  }
},

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"status": "superseded",
"type": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "11506-3",
      "display": "Progress note"
    }
  ],
  "text": "Progress note"
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-documentreference-category",
        "code": "clinical-note",
        "display": "Clinical Note"
      }
    ]
  }
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
```

```

"date": "2021-03-23T12:00:00Z",
"author": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
"custodian": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
"content": [
  {
    "attachment": {
      "contentType": "text/plain",
      "data":
"U3ViamVjdG12ZSAgICAgICAgCkFsbGVyZ2llcyAgICAgCk5vIGtub3duIGFsbGVyZ2llcwpPYmplY3RpdmU6ICA
gICAgIApWaXRhbHMgICAgICAKQIA6IDEyOS84NSBtbUhnIEwgQXJtIFNpdHRpbmcmcKQXNzZXNzbWVudCAgI
CAgICAgCkRyYWdub3NpcyBDdb2RlcyAgICAgIAozODU2OTEwMDcgRnJhY3R1cmUgQ2FyZSAgICAgICAgICAg
ICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIC
zaWNhbCBhY3Rpdml0eSB0YXJnZXQgbGlnaHQgZXhlcmlNpc2UKCIBsYW4gICAgICAgIApQbGFuIE9mIENhc
mUgIAowMy8yMy8yMDIxIEdvYWxzOiBJbiBwYWlkIGVtcGxweW1lbnQKMDMvMjMvMjAyMSBhb2Fsczog
UmVmZXJyYWwgdG8gc3VwcG9ydCBncm91cAowMy8yMy8yMDIxIEhYWX0aCBDb25jZXJuczogTnV0cmI0
aW9uIGltcGFpcmkIGR1ZSB0byBsaW1pdGVkIGFjY2VzcyB0byBoZWZsdGhmdWwgZm9vZHMkMDMvMj
MvMjAyMSBIZWFsdGggQ29uY2VybnM6IEFjdXRlIHZpcmFsIHBoYXJ5bmdpdGlzCjAzLzIzLzlwMjEgSGVhbHR
oIENvbmNlcm5zOiBDaHJvbmIjIGNvbmdlc3RpdmUgaGVhcnQgZmFpbHVyZQo="
    }
  },
  {
    "format": {
      "system": "http://ihe.net/fhir/ValueSet/IHE.FormatCode.codesystem",

```

```

    "code": "urn:ihe:iti:xds:2017:mimeTypeSufficient",
    "display": "mimeType Sufficient"
  }
}
],
"context": {
  "encounter": [
    {
      "reference": "Encounter/7086-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ],
  "period": {
    "start": "2021-03-23T12:00:00Z",
    "end": "2021-03-23T12:00:00Z"
  }
}
}
]
}

```

Clinical Tests

US Core Clinical Test Result Observation Profile & US Core DiagnosticReport Profile for Report and Note Exchange

GET [https://\[Base URL\]/Observation?code=2708-6&patient={id}](https://[Base URL]/Observation?code=2708-6&patient={id})

Example: <https://mdrfhirapi.mdronline.net/Observation?code=2708-6&patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```

{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
  "meta": {
    "lastUpdated": "2022-12-04T12:32:12Z"
  },
  "type": "searchset",
  "total": 3,
  "link": [
    {
      "relation": "self",
      "url": "https://mdrfhirapi.mdronline.net/Observation?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7&code=2708-6&category=v-s"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://mdrfhirapi.mdronline.net/Observation/11434-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-v-s-2708-6",
      "resource": {
        "resourceType": "Observation",
        "id": "11434-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-v-s-2708-6",
        "meta": {
          "profile": [
            "http://hl7.org/fhir/us/core/StructureDefinition/us-core-pulse-oximetry"
          ]
        }
      }
    }
  ]
}

```



```

},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Observation : Pulse-OX</div>"
},
"status": "final",
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "code": "vital-signs",
        "display": "Vital Signs"
      }
    ],
    "text": "Vital Signs"
  }
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "display": "Bosco Lucien"
},
"effectiveDateTime": "2022-10-05T04:22:00Z",
"issued": "2022-10-05T04:22:00Z",
"code": {

```

```
"coding": [  
  {  
    "system": "http://loinc.org",  
    "code": "2708-6",  
    "display": "Oxygen saturation in Arterial blood"  
  },  
  {  
    "system": "http://loinc.org",  
    "code": "59408-5",  
    "display": "Oxygen saturation in Arterial blood by Pulse oximetry"  
  }  
],  
"text": "Oxygen saturation in Arterial blood"  
},  
"valueQuantity": {  
  "value": 77,  
  "unit": "%",  
  "system": "http://unitsofmeasure.org",  
  "code": "%"  
},  
"component": [  
  {  
    "code": {  
      "coding": [  
        {
```

```

    "system": "http://loinc.org",
    "code": "3151-8",
    "display": "Inhaled oxygen flow rate"
  }
],
"text": "Inhaled oxygen flow rate"
},
"dataAbsentReason": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/data-absent-reason",
      "code": "unknown",
      "display": "Unknown"
    }
  ],
  "text": "Unknown"
}
},
{
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "3150-0",
        "display": "Inhaled oxygen concentration"
      }
    ]
  }
}

```

```

    }
  ],
  "text": "Inhaled oxygen concentration"
},
"dataAbsentReason": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/data-absent-reason",
      "code": "unknown",
      "display": "Unknown"
    }
  ],
  "text": "Unknown"
}
]
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Observation/11435-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-v-s-2708-6",
  "resource": {
    "resourceType": "Observation",

```

```
"id": "11435-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-v-s-2708-6",
"meta": {
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-pulse-oximetry"
  ]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Observation : Pulse-OX</div>"
},
"status": "final",
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "code": "vital-signs",
        "display": "Vital Signs"
      }
    ],
    "text": "Vital Signs"
  }
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
```

```

"display": "Bosco Lucien"
},
"effectiveDateTime": "2022-10-05T04:23:00Z",
"issued": "2022-10-05T04:23:00Z",
"code": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "2708-6",
      "display": "Oxygen saturation in Arterial blood"
    },
    {
      "system": "http://loinc.org",
      "code": "59408-5",
      "display": "Oxygen saturation in Arterial blood by Pulse oximetry"
    }
  ],
  "text": "Oxygen saturation in Arterial blood"
},
"dataAbsentReason": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/data-absent-reason",
      "code": "unknown",
      "display": "Unknown"
    }
  ]
}

```

```

    }
  ],
  "text": "Unknown"
}
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Observation/11426-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-v-s-2708-6",
  "resource": {
    "resourceType": "Observation",
    "id": "11426-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-v-s-2708-6",
    "meta": {
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-pulse-oximetry"
      ]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Observation : Pulse-OX</div>"
    },
    "status": "final",
    "category": [

```

```

{
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/observation-category",
      "code": "vital-signs",
      "display": "Vital Signs"
    }
  ],
  "text": "Vital Signs"
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "display": "Bosco Lucien"
},
"effectiveDateTime": "2022-11-21T09:05:00Z",
"issued": "2022-11-21T09:05:00Z",
"code": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "2708-6",
      "display": "Oxygen saturation in Arterial blood"
    }
  ],
  {

```



```
"system": "http://loinc.org",
"code": "59408-5",
"display": "Oxygen saturation in Arterial blood by Pulse oximetry"
}
],
"text": "Oxygen saturation in Arterial blood"
},
"valueQuantity": {
"value": 77,
"unit": "%",
"system": "http://unitsofmeasure.org",
"code": "%"
},
"component": [
{
"code": {
"coding": [
{
"system": "http://loinc.org",
"code": "3151-8",
"display": "Inhaled oxygen flow rate"
}
],
"text": "Inhaled oxygen flow rate"
}
],

```

```
"valueQuantity": {
  "value": 6,
  "unit": "L/min",
  "system": "http://unitsofmeasure.org",
  "code": "L/min"
},
{
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "3150-0",
        "display": "Inhaled oxygen concentration"
      }
    ],
    "text": "Inhaled oxygen concentration"
  },
  "valueQuantity": {
    "value": 40,
    "unit": "%",
    "system": "http://unitsofmeasure.org",
    "code": "%"
  }
}
```

```
]
},
"search": {
  "mode": "match"
}
}
]
}
```

Diagnostic Imaging

US Core Diagnostic Imaging Result Observation Profile & US Core DiagnosticReport Profile for Report and Note Exchange

GET [https://\[Base URL\]/DiagnosticReport?category=LAB&patient={id}](https://[Base URL]/DiagnosticReport?category=LAB&patient={id})

Example: <https://mdrfhirapi.mdronline.net/DiagnosticReport?category=LAB&patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
  "meta": {
    "lastUpdated": "2022-12-04T12:32:11Z"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
```

```

    "url": "https://mdrfhirapi.mdronline.net/DiagnosticReport?category=LAB&patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"entry": [
  {
    "fullUrl": "https://mdrfhirapi.mdronline.net/DiagnosticReport/L1020-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "resource": {
      "resourceType": "DiagnosticReport",
      "id": "L1020-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "meta": {
        "versionId": "1",
        "lastUpdated": "2022-12-04T12:32:11Z",
        "source": "#iLFSV7OLv0KF8dmQ",
        "profile": [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-diagnosticreport-lab"
        ]
      },
      "status": "final",
      "category": [
        {
          "coding": [
            {
              "system": "http://terminology.hl7.org/CodeSystem/v2-0074",
              "code": "LAB",

```

```
    "display": "Laboratory"
  }
],
  "text": "Laboratory"
}
],
"code": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "24331-1",
      "display": "Lipid 1996 panel - Serum or Plasma"
    }
  ],
  "text": "Lipid Panel"
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"effectiveDateTime": "2022-01-26T12:02:08Z",
"issued": "2022-01-26T12:02:08Z",
"performer": [
  {
    "reference": "Organization/1"
  }
],
```

```
{
  "reference": "Practitioner/14",
  "display": "Dr. Max Burger"
},
"result": [
  {
    "reference": "Observation/13118-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-laboratory",
    "display": "Cholesterol, Total"
  },
  {
    "reference": "Observation/13119-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-laboratory",
    "display": "Triglycerides"
  },
  {
    "reference": "Observation/13120-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-laboratory",
    "display": "HDL Cholesterol"
  },
  {
    "reference": "Observation/13121-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-laboratory",
    "display": "VLDL Cholesterol Cal"
  },
  {
    "reference": "Observation/13122-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-laboratory",
    "display": "LDL Cholesterol Calc"
  }
]
```

```
    }
  ]
},
"search": {
  "mode": "match"
}
}
]
}
```

Encounter Information

US Core US Core Encounter Profile & US Core Condition Encounter Diagnosis Profile

GET [https://\[Base URL\]/Encounter?patient={id}](https://[Base URL]/Encounter?patient={id})

Example: <https://mdrfhirapi.mdronline.net/Encounter?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
  "meta": {
    "lastUpdated": "2022-12-04T12:32:15Z"
  },
  "type": "searchset",
  "total": 6,
  "link": [
    {
      "relation": "self",
```

```

    "url": "https://mdrfhirapi.mdronline.net/Encounter?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"entry": [
  {
    "fullUrl": "https://mdrfhirapi.mdronline.net/Encounter/7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "resource": {
      "resourceType": "Encounter",
      "id": "7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "meta": {
        "extension": [
          {
            "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
            "valueString": "Encounter 7079"
          },
          {
            "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
            "valueMarkdown": "This is an encounter 7079."
          }
        ],
        "profile": [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"
        ]
      },

```



```
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">This is an encounter 7079</div>"
},
"identifier": [
  {
    "system": "http://www.mdrhythm.com",
    "value": "7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "finished",
"class": {
  "system": "http://terminology.hl7.org/CodeSystem/v3-ActCode",
  "code": "IMP",
  "display": "inpatient encounter"
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"type": [
  {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "185347001",
```

```
    "display": "Encounter for problem"
  }
],
  "text": "Encounter for problem"
}
],
"participant": [
  {
    "type": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/v3-ParticipationType",
            "code": "PPRF",
            "display": "primary performer"
          }
        ],
        "text": "primary performer"
      }
    ],
    "period": {
      "start": "2022-10-05",
      "end": "2022-10-05"
    },
    "individual": {
```

```
"reference": "Practitioner/14",
  "display": "Dr. Max Burger"
}
},
  "hospitalization": {
    "dischargeDisposition": {
      "coding": [
        {
          "system": "http://www.nubc.org/patient-discharge",
          "code": "01",
          "display": "Discharged to Home"
        }
      ]
    }
  },
  "period": {
    "start": "2022-10-05",
    "end": "2022-10-05"
  },
  "reasonCode": [
    {
      "coding": [
        {
          "system": "http://snomed.info/sct",
```

```
    "code": "88805009",
    "display": "Chronic Congestive Heart Failure"
  }
],
  "text": "Chronic Congestive Heart Failure"
}
],
"location": [
  {
    "location": {
      "reference": "Location/17",
      "display": "TechSoft, Inc. DBA Medical Systems"
    }
  }
],
"serviceProvider": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
}
},
"search": {
  "mode": "match"
}
},
{
```

```
"fullUrl": "https://mdrfhirapi.mdronline.net/Encounter/7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
"resource": {
  "resourceType": "Encounter",
  "id": "7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "meta": {
    "extension": [
      {
        "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
        "valueString": "Encounter 7078"
      },
      {
        "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
        "valueMarkdown": "This is an encounter 7078."
      }
    ],
    "profile": [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"
    ]
  },
  "text": {
    "status": "generated",
    "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">This is an encounter 7078</div>"
  },
  "identifier": [
    {
```

```

    "system": "http://www.mdrhythm.com",
    "value": "7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "finished",
"class": {
  "system": "http://terminology.hl7.org/CodeSystem/v3-ActionCode",
  "code": "IMP",
  "display": "inpatient encounter"
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"type": [
  {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "185347001",
        "display": "Encounter for problem"
      }
    ],
    "text": "Encounter for problem"
  }
],

```

```
"participant": [  
  {  
    "type": [  
      {  
        "coding": [  
          {  
            "system": "http://terminology.hl7.org/CodeSystem/v3-ParticipationType",  
            "code": "PPRF",  
            "display": "primary performer"  
          }  
        ],  
        "text": "primary performer"  
      }  
    ],  
    "period": {  
      "start": "2022-09-10",  
      "end": "2022-09-10"  
    },  
    "individual": {  
      "reference": "Practitioner/14",  
      "display": "Dr. Max Burger"  
    }  
  }  
],  
"hospitalization": {
```

```
"dischargeDisposition": {
  "coding": [
    {
      "system": "http://www.nubc.org/patient-discharge",
      "code": "01",
      "display": "Discharged to Home"
    }
  ]
},
"period": {
  "start": "2022-09-10",
  "end": "2022-09-10"
},
"reasonCode": [
  {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "88805009",
        "display": "Chronic Congestive Heart Failure"
      }
    ],
    "text": "Chronic Congestive Heart Failure"
  }
]
```



```

    ],
    "location": [
      {
        "location": {
          "reference": "Location/17",
          "display": "TechSoft, Inc. DBA Medical Systems"
        }
      }
    ],
    "serviceProvider": {
      "reference": "Organization/1",
      "display": "TechSoft, Inc. DBA Medical Systems"
    }
  },
  "search": {
    "mode": "match"
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Encounter/7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Encounter",
    "id": "7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [

```

```

{
  "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
  "valueString": "Encounter 7076"
},
{
  "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
  "valueMarkdown": "This is an encounter 7076."
}
],
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"
]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">This is an encounter 7076</div>"
},
"identifier": [
  {
    "system": "http://www.mdrhythm.com",
    "value": "7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "finished",
"class": {

```

```
"system": "http://terminology.hl7.org/CodeSystem/v3-ActCode",
"code": "IMP",
"display": "inpatient encounter"
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"type": [
  {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "162673000",
        "display": "General examination of patient"
      }
    ],
    "text": "General examination of patient"
  }
],
"participant": [
  {
    "type": [
      {
        "coding": [
          {
```

```
"system": "http://terminology.hl7.org/CodeSystem/v3-ParticipationType",
"code": "PPRF",
"display": "primary performer"
}
],
"text": "primary performer"
}
],
"period": {
"start": "2022-06-11",
"end": "2022-06-11"
},
"individual": {
"reference": "Practitioner/14",
"display": "Dr. Max Burger"
}
}
],
"hospitalization": {
"dischargeDisposition": {
"coding": [
{
"system": "http://www.nubc.org/patient-discharge",
"code": "01",
"display": "Discharged to Home"
}
]
}
}
}
```

```
    }
  ]
}
},
"period": {
  "start": "2022-06-11",
  "end": "2022-06-11"
},
"reasonCode": [
  {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "195662009",
        "display": "Acute Viral Pharyngitis"
      }
    ],
    "text": "Acute Viral Pharyngitis"
  }
],
"location": [
  {
    "location": {
      "reference": "Location/17",
      "display": "TechSoft, Inc. DBA Medical Systems"
    }
  }
]
```

```

    }
  }
],
"serviceProvider": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
}
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Encounter/7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Encounter",
    "id": "7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name>",
          "valueString": "Encounter 7083"
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",

```

```
    "valueMarkdown": "This is an encounter 7083."
  }
],
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"
]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">This is an encounter 7083</div>"
},
"identifier": [
  {
    "system": "http://www.mdrhythm.com",
    "value": "7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "finished",
"class": {
  "system": "http://terminology.hl7.org/CodeSystem/v3-ActCode",
  "code": "IMP",
  "display": "inpatient encounter"
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
```

```
},
"type": [
  {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "162673000",
        "display": "General examination of patient"
      }
    ],
    "text": "General examination of patient"
  }
],
"participant": [
  {
    "type": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/v3-ParticipationType",
            "code": "PPRF",
            "display": "primary performer"
          }
        ],
        "text": "primary performer"
      }
    ]
  }
]
```



```
    }
  ],
  "period": {
    "start": "2022-06-01",
    "end": "2022-06-01"
  },
  "individual": {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
}
],
"hospitalization": {
  "dischargeDisposition": {
    "coding": [
      {
        "system": "http://www.nubc.org/patient-discharge",
        "code": "01",
        "display": "Discharged to Home"
      }
    ]
  }
}
},
"period": {
  "start": "2022-06-01",
```

```
"end": "2022-06-01"
},
"reasonCode": [
  {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "195662009",
        "display": "Acute Viral Pharyngitis"
      }
    ],
    "text": "Acute Viral Pharyngitis"
  }
],
"location": [
  {
    "location": {
      "reference": "Location/17",
      "display": "TechSoft, Inc. DBA Medical Systems"
    }
  }
],
"serviceProvider": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
```

```

    }
  },
  "search": {
    "mode": "match"
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Encounter/7080-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Encounter",
    "id": "7080-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Encounter 7080"
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "This is an encounter 7080."
        }
      ],
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"
      ]
    }
  }
}

```

```
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">This is an encounter 7080</div>"
},
"identifier": [
  {
    "system": "http://www.mdrhythm.com",
    "value": "7080-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "finished",
"class": {
  "system": "http://terminology.hl7.org/CodeSystem/v3-ActCode",
  "code": "IMP",
  "display": "inpatient encounter"
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"type": [
  {
    "coding": [
      {
        "system": "http://snomed.info/sct",
```

```
    "code": "410620009",
    "display": "Well child visit"
  }
],
"text": "Well child visit"
}
],
"participant": [
{
  "type": [
    {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/v3-ParticipationType",
          "code": "PPRF",
          "display": "primary performer"
        }
      ],
      "text": "primary performer"
    }
  ],
  "period": {
    "start": "2022-04-07",
    "end": "2022-04-07"
  },
}
```

```
"individual": {
  "reference": "Practitioner/14",
  "display": "Dr. Max Burger"
}
},
"hospitalization": {
  "dischargeDisposition": {
    "coding": [
      {
        "system": "http://www.nubc.org/patient-discharge",
        "code": "01",
        "display": "Discharged to Home"
      }
    ]
  }
},
"period": {
  "start": "2022-04-07",
  "end": "2022-04-07"
},
"location": [
  {
    "location": {
      "reference": "Location/17",
```

```

        "display": "TechSoft, Inc. DBA Medical Systems"
    }
}
],
"serviceProvider": {
    "reference": "Organization/1",
    "display": "TechSoft, Inc. DBA Medical Systems"
}
},
"search": {
    "mode": "match"
}
},
{
    "fullUrl": "https://mdrfhirapi.mdronline.net/Encounter/7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "resource": {
        "resourceType": "Encounter",
        "id": "7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
        "meta": {
            "extension": [
                {
                    "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
                    "valueString": "Encounter 7077"
                }
            ],
        }
    }
}

```

```
"url": "http://hl7.org/fhir/StructureDefinition/instance-description",
"valueMarkdown": "This is an encounter 7077."
}
],
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter"
]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">This is an encounter 7077</div>"
},
"identifier": [
  {
    "system": "http://www.mdrhythm.com",
    "value": "7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"status": "finished",
"class": {
  "system": "http://terminology.hl7.org/CodeSystem/v3-ActCode",
  "code": "IMP",
  "display": "inpatient encounter"
},
"subject": {
```



```
"reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"type": [
  {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "185347001",
        "display": "Encounter for problem"
      }
    ],
    "text": "Encounter for problem"
  }
],
"participant": [
  {
    "type": [
      {
        "coding": [
          {
            "system": "http://terminology.hl7.org/CodeSystem/v3-ParticipationType",
            "code": "PPRF",
            "display": "primary performer"
          }
        ]
      }
    ]
  }
],
```

```
    "text": "primary performer"
  }
],
"period": {
  "start": "2022-03-29",
  "end": "2022-03-29"
},
"individual": {
  "reference": "Practitioner/14",
  "display": "Dr. Max Burger"
}
},
],
"hospitalization": {
  "dischargeDisposition": {
    "coding": [
      {
        "system": "http://www.nubc.org/patient-discharge",
        "code": "01",
        "display": "Discharged to Home"
      }
    ]
  }
},
},
"period": {
```

```
"start": "2022-03-29",
"end": "2022-03-29"
},
"reasonCode": [
  {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "88805009",
        "display": "Chronic Congestive Heart Failure"
      }
    ],
    "text": "Chronic Congestive Heart Failure"
  }
],
"location": [
  {
    "location": {
      "reference": "Location/17",
      "display": "TechSoft, Inc. DBA Medical Systems"
    }
  }
],
"serviceProvider": {
  "reference": "Organization/1",
```

```
    "display": "TechSoft, Inc. DBA Medical Systems"
  }
},
"search": {
  "mode": "match"
}
}
]
}
```

Goals

US Core Goal Profile

GET [https://\[Base URL\]/Goal?patient={id}](https://[Base URL]/Goal?patient={id})

Example: <https://mdrfhirapi.mdronline.net/Goal?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
  "meta": {
    "lastUpdated": "2022-12-04T12:32:12Z"
  },
  "type": "searchset",
  "total": 2,
  "link": [
    {
      "relation": "self",
      "url": "https://mdrfhirapi.mdronline.net/Goal?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ]
}
```

```

}
],
"entry": [
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Goal/11479-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Goal",
    "id": "11479-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-goal"
      ]
    },
    "text": {
      "status": "generated",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Goal Details</div>"
    },
    "lifecycleStatus": "active",
    "description": {
      "coding": [
        {
          "system": "http://snomed.info/sct",
          "code": "711281004",
          "display": "Referral to support group"
        }
      ]
    }
  }
}
]

```

```

    ],
    "text": "Referral to support group"
  },
  "subject": {
    "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "display": "Bosco Lucien "
  },
  "target": [
    {
      "dueDate": "2021-03-23"
    }
  ]
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Goal/11480-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Goal",
    "id": "11480-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-goal"
      ]
    }
  }
}

```

```
]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Goal Details</div>"
},
"lifecycleStatus": "active",
"description": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "406156006",
      "display": "In paid employment"
    }
  ],
  "text": "In paid employment"
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "display": "Bosco Lucien "
},
"target": [
  {
    "dueDate": "2021-03-23"
  }
]
```

```
]
},
"search": {
  "mode": "match"
}
}
]
}
```

Health Concerns

US Core Condition Profile (USCDI v1 only) & US Core Condition Problems and Health Concerns Profile

GET [https://\[Base URL\]/Condition?patient={id}](https://[Base URL]/Condition?patient={id})

Example: <https://mdrfhirapi.mdronline.net/Condition?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
  "meta": {
    "lastUpdated": "2022-12-04T12:32:09Z"
  },
  "type": "searchset",
  "total": 13,
  "link": {
    "relation": "self",
    "url": "https://mdrfhirapi.mdronline.net/Condition?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  },
  "entry": [
```



```

{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11497-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11497-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Encounter - "
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "Encounter - "
        }
      ],
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-problems-health-concerns"
      ]
    },
    "text": {
      "status": "extensions",
      "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Encounter - Nutrition Impaired Due To Limited Access To Healthful Foods</div>"
    },
  },
}

```

```
"identifier": [
  {
    "value": "11497"
  }
],
"extension": [
  {
    "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
    "valueDateTime": "2022-11-29T12:00:00Z"
  }
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "active"
    }
  ]
},
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
}
```

```
]
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/condition-category",
        "code": "health-concern",
        "display": "Health Concern"
      }
    ]
  },
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-tags",
        "code": "sdoh",
        "display": "SDOH"
      }
    ]
  }
],
"code": {
  "coding": [
    {
```

```
"system": "http://snomed.info/sct",
"code": "445281000124101",
"display": "Nutrition Impaired Due To Limited Access To Healthful Foods"
}
]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7086-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "2022-11-29T12:00:00Z",
"recordedDate": "2022-11-29T09:07:36Z"
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11469-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11469-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
```

```
"extension": [  
  {  
    "url": "http://hl7.org/fhir/StructureDefinition/instance-name",  
    "valueString": "Encounter - Fracture Care"  
  },  
  {  
    "url": "http://hl7.org/fhir/StructureDefinition/instance-description",  
    "valueMarkdown": "Encounter - Fracture Care"  
  }  
],  
"profile": [  
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-encounter-diagnosis"  
]  
},  
"text": {  
  "status": "extensions",  
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Encounter - Fracture Care</div>"  
},  
"identifier": [  
  {  
    "value": "11469"  
  }  
],  
"extension": [  
  {
```

```
"url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
"valueDateTime": "2022-11-22T12:00:00Z"
}
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "active"
    }
  ]
},
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
},
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/condition-category",
```

```
    "code": "encounter-diagnosis"
  },
  {
    "system": "http://snomed.info/sct",
    "code": "439401001",
    "display": "diagnosis"
  }
]
},
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "385691007",
      "display": "Fracture Care"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7086-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
},
```

```

"onsetDateTime": "2022-11-22T12:00:00Z",
"recordedDate": "2022-11-22T12:16:07Z"
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11470-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11470-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Encounter - Respiratory Therapy"
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "Encounter - Respiratory Therapy"
        }
      ],
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-encounter-diagnosis"
      ]
    }
  }
}

```



```
]
},
"text": {
  "status": "extensions",
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Encounter - Respiratory Therapy</div>"
},
"identifier": [
  {
    "value": "11470"
  }
],
"extension": [
  {
    "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
    "valueDateTime": "2022-11-22T12:00:00Z"
  }
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "active"
    }
  ]
},
},
```

```
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
},
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/condition-category",
        "code": "encounter-diagnosis"
      },
      {
        "system": "http://snomed.info/sct",
        "code": "439401001",
        "display": "diagnosis"
      }
    ]
  }
],
"code": {
  "coding": [
```

```
{
  "system": "http://snomed.info/sct",
  "code": "53950000",
  "display": "Respiratory Therapy"
}
],
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7092-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "2022-11-22T12:00:00Z",
"recordedDate": "2022-11-22T12:33:01Z"
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11443-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11443-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
```

```
"meta": {
  "extension": [
    {
      "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
      "valueString": "Encounter - Acute Viral Pharyngitis"
    },
    {
      "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
      "valueMarkdown": "Encounter - Acute Viral Pharyngitis"
    }
  ],
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-encounter-diagnosis"
  ],
  "text": {
    "status": "extensions",
    "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Encounter - Acute Viral Pharyngitis</div>"
  },
  "identifier": [
    {
      "value": "11443"
    }
  ],
  "extension": [
```

```
{
  "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
  "valueDateTime": "2022-11-22T12:00:00Z"
}
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "active"
    }
  ]
},
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
},
"category": [
  {
    "coding": [
      {
```

```

    "system": "http://terminology.hl7.org/CodeSystem/condition-category",
    "code": "encounter-diagnosis"
  },
  {
    "system": "http://snomed.info/sct",
    "code": "439401001",
    "display": "diagnosis"
  }
]
},
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "195662009",
      "display": "Acute Viral Pharyngitis"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
}

```

```
    },
    "onsetDateTime": "2022-11-22T12:00:00Z",
    "recordedDate": "2022-11-22T08:34:28Z"
  },
  "search": {
    "mode": "match"
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11456-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11456-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Encounter - Acute Viral Pharyngitis"
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "Encounter - Acute Viral Pharyngitis"
        }
      ]
    },
    "profile": [
```

```
"http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-encounter-diagnosis"
]
},
"text": {
  "status": "extensions",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Encounter - Acute Viral Pharyngitis</div>"
},
"identifier": [
  {
    "value": "11456"
  }
],
"extension": [
  {
    "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
    "valueDateTime": "2022-11-22T12:00:00Z"
  }
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "active"
    }
  ]
}
```



```
},
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
},
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/condition-category",
        "code": "encounter-diagnosis"
      },
      {
        "system": "http://snomed.info/sct",
        "code": "439401001",
        "display": "diagnosis"
      }
    ]
  }
],
"code": {
```

```
"coding": [
  {
    "system": "http://snomed.info/sct",
    "code": "195662009",
    "display": "Acute Viral Pharyngitis"
  }
],
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7081-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "2022-11-22T12:00:00Z",
"recordedDate": "2022-11-22T08:34:28Z"
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11444-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
```

```
"id": "11444-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
"meta": {
  "extension": [
    {
      "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
      "valueString": "Encounter - Acute Viral Pharyngitis"
    },
    {
      "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
      "valueMarkdown": "Encounter - Acute Viral Pharyngitis"
    }
  ],
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-encounter-diagnosis"
  ]
},
"text": {
  "status": "extensions",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Encounter - Acute Viral Pharyngitis</div>"
},
"identifier": [
  {
    "value": "11444"
  }
],
```

```
"extension": [
  {
    "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
    "valueDateTime": "2022-11-22T12:00:00Z"
  }
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "active"
    }
  ]
},
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
},
"category": [
  {
    "coding": [
```

```

{
  "system": "http://terminology.hl7.org/CodeSystem/condition-category",
  "code": "encounter-diagnosis"
},
{
  "system": "http://snomed.info/sct",
  "code": "439401001",
  "display": "diagnosis"
}
]
}
],
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "195662009",
      "display": "Acute Viral Pharyngitis"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {

```

```

    "reference": "Encounter/7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  },
  "onsetDateTime": "2022-11-22T12:00:00Z",
  "recordedDate": "2022-11-22T08:34:28Z"
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11482-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11482-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Encounter - "
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "Encounter - "
        }
      ]
    }
  },
},
],

```

```
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-problems-health-concerns"
]
},
"text": {
  "status": "extensions",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">Encounter - Acute Viral Pharyngitis</div>"
},
"identifier": [
  {
    "value": "11482"
  }
],
"extension": [
  {
    "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
    "valueDateTime": "2022-11-22T12:00:00Z"
  }
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "active"
    }
  ]
}
```

```
]
},
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
},
"category": [
  {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/condition-category",
        "code": "health-concern",
        "display": "Health Concern"
      }
    ]
  }
],
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
```



```
    "code": "195662009",
    "display": "Acute Viral Pharyngitis"
  }
]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7086-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "2022-11-22T12:00:00Z",
"recordedDate": "2022-11-22T08:34:28Z"
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11454-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11454-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
```

```

{
  "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
  "valueString": "Encounter - Viral Sinusitis"
},
{
  "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
  "valueMarkdown": "Encounter - Viral Sinusitis"
}
],
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-encounter-diagnosis"
]
},
"text": {
  "status": "extensions",
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Encounter - Viral Sinusitis</div>"
},
"identifier": [
  {
    "value": "11454"
  }
],
"extension": [
  {
    "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",

```

```
"valueDateTime": "2022-11-22T12:00:00Z"
}
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "active"
    }
  ]
},
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
},
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/condition-category",
        "code": "encounter-diagnosis"
      }
    ]
  }
]
```

```
    },
    {
      "system": "http://snomed.info/sct",
      "code": "439401001",
      "display": "diagnosis"
    }
  ]
}
],
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "444814009",
      "display": "Viral Sinusitis"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7082-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "2022-11-22T12:00:00Z",
```

```
"recordedDate": "2022-11-22T08:39:44Z"
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11455-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11455-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Encounter - Otitis Media"
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "Encounter - Otitis Media"
        }
      ],
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-encounter-diagnosis"
      ]
    }
  }
}
```

```
},
"text": {
  "status": "extensions",
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Encounter - Otitis Media</div>"
},
"identifier": [
  {
    "value": "11455"
  }
],
"extension": [
  {
    "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
    "valueDateTime": "2022-11-22T12:00:00Z"
  }
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "resolved"
    }
  ]
},
"verificationStatus": {
```

```
"coding": [  
  {  
    "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",  
    "code": "confirmed"  
  }  
],  
"category": [  
  {  
    "coding": [  
      {  
        "system": "http://terminology.hl7.org/CodeSystem/condition-category",  
        "code": "encounter-diagnosis"  
      },  
      {  
        "system": "http://snomed.info/sct",  
        "code": "439401001",  
        "display": "diagnosis"  
      }  
    ]  
  }  
],  
"code": {  
  "coding": [  
    {
```

```
"system": "http://snomed.info/sct",
"code": "65363002",
"display": "Otitis Media"
}
]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7074-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "2022-11-22T12:00:00Z",
"abatementDateTime": "2022-01-26T12:00:00Z",
"recordedDate": "2022-11-22T08:40:39Z"
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11415-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11415-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
```



```

"meta": {
  "extension": [
    {
      "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
      "valueString": "Encounter - Chronic Congestive Heart Failure"
    },
    {
      "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
      "valueMarkdown": "Encounter - Chronic Congestive Heart Failure"
    }
  ],
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-encounter-diagnosis"
  ],
  "text": {
    "status": "extensions",
    "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">Encounter - Chronic Congestive Heart Failure</div>"
  },
  "identifier": [
    {
      "value": "11415"
    }
  ],
  "extension": [

```

```
{
  "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
  "valueDateTime": "2022-11-19T12:00:00Z"
},
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "resolved"
    }
  ]
},
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
},
"category": [
  {
    "coding": [
      {
```

```

    "system": "http://terminology.hl7.org/CodeSystem/condition-category",
    "code": "encounter-diagnosis"
  },
  {
    "system": "http://snomed.info/sct",
    "code": "439401001",
    "display": "diagnosis"
  }
]
},
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "88805009",
      "display": "Chronic Congestive Heart Failure"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
}

```

```

    },
    "onsetDateTime": "2022-11-19T12:00:00Z",
    "abatementDateTime": "2022-03-29T12:00:00Z",
    "recordedDate": "2022-11-19T02:20:28Z"
  },
  "search": {
    "mode": "match"
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11417-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11417-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Encounter - Chronic Congestive Heart Failure"
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "Encounter - Chronic Congestive Heart Failure"
        }
      ]
    }
  },
},
],

```

```
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-encounter-diagnosis"
]
},
"text": {
  "status": "extensions",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">Encounter - Chronic Congestive Heart
Failure</div>"
},
"identifier": [
  {
    "value": "11417"
  }
],
"extension": [
  {
    "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
    "valueDateTime": "2022-11-19T12:00:00Z"
  }
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "resolved"
    }
  ]
}
```

```
]
},
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
},
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/condition-category",
        "code": "encounter-diagnosis"
      },
      {
        "system": "http://snomed.info/sct",
        "code": "439401001",
        "display": "diagnosis"
      }
    ]
  }
],
```

```
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "88805009",
      "display": "Chronic Congestive Heart Failure"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"encounter": {
  "reference": "Encounter/7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"onsetDateTime": "2022-11-19T12:00:00Z",
"abatementDateTime": "2022-09-10T12:00:00Z",
"recordedDate": "2022-11-19T02:20:28Z"
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11419-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
```

```

"resource": {
  "resourceType": "Condition",
  "id": "11419-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "meta": {
    "extension": [
      {
        "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
        "valueString": "Encounter - Chronic Congestive Heart Failure"
      },
      {
        "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
        "valueMarkdown": "Encounter - Chronic Congestive Heart Failure"
      }
    ],
    "profile": [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-encounter-diagnosis"
    ]
  },
  "text": {
    "status": "extensions",
    "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Encounter - Chronic Congestive Heart Failure</div>"
  },
  "identifier": [
    {
      "value": "11419"
    }
  ]
}

```



```
}
],
"extension": [
  {
    "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
    "valueDateTime": "2022-11-19T12:00:00Z"
  }
],
"clinicalStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
      "code": "resolved"
    }
  ]
},
"verificationStatus": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
      "code": "confirmed"
    }
  ]
},
"category": [
```

```
{
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/condition-category",
      "code": "encounter-diagnosis"
    },
    {
      "system": "http://snomed.info/sct",
      "code": "439401001",
      "display": "diagnosis"
    }
  ]
},
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "88805009",
      "display": "Chronic Congestive Heart Failure"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
```

```

    },
    "encounter": {
      "reference": "Encounter/7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    },
    "onsetDateTime": "2022-11-19T12:00:00Z",
    "abatementDateTime": "2022-10-05T12:00:00Z",
    "recordedDate": "2022-11-19T02:20:28Z"
  },
  "search": {
    "mode": "match"
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Condition/11481-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Condition",
    "id": "11481-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Encounter - "
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",

```

```
    "valueMarkdown": "Encounter - "
  }
],
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition-problems-health-concerns"
]
},
"text": {
  "status": "extensions",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Encounter - Chronic Congestive Heart
Failure</div>"
},
"identifier": [
  {
    "value": "11481"
  }
],
"extension": [
  {
    "url": "http://hl7.org/fhir/StructureDefinition/condition-assertedDate",
    "valueDateTime": "2022-11-19T12:00:00Z"
  }
],
"clinicalStatus": {
  "coding": [
    {
```

```
"system": "http://terminology.hl7.org/CodeSystem/condition-clinical",
"code": "resolved"
}
]
},
"verificationStatus": {
"coding": [
{
"system": "http://terminology.hl7.org/CodeSystem/condition-ver-status",
"code": "confirmed"
}
]
},
"category": [
{
"coding": [
{
"system": "http://hl7.org/fhir/us/core/CodeSystem/condition-category",
"code": "health-concern",
"display": "Health Concern"
}
]
}
],
"code": {
```

```
"coding": [  
  {  
    "system": "http://snomed.info/sct",  
    "code": "88805009",  
    "display": "Chronic Congestive Heart Failure"  
  }  
]  
,  
"subject": {  
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"  
},  
"encounter": {  
  "reference": "Encounter/7086-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"  
},  
"onsetDateTime": "2022-11-19T12:00:00Z",  
"abatementDateTime": "2021-03-23T12:00:00Z",  
"recordedDate": "2022-11-19T02:20:28Z"  
},  
"search": {  
  "mode": "match"  
}  
}  
]
```

Immunizations

US Core Immunization Profile

GET https://[Base URL]/Immunization?patient={id}

Example: <https://mdrfhirapi.mdronline.net/Immunization?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
  "meta": {
    "lastUpdated": "2022-12-04T12:32:12Z"
  },
  "type": "searchset",
  "total": 2,
  "link": [
    {
      "relation": "self",
      "url": "https://mdrfhirapi.mdronline.net/Immunization?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
    }
  ],
  "entry": [
    {
      "fullUrl": "https://mdrfhirapi.mdronline.net/Immunization/1425-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "resource": {
        "resourceType": "Immunization",
        "id": "1425-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
        "meta": {
```

```
"extension": [  
  {  
    "url": "http://hl7.org/fhir/StructureDefinition/instance-name",  
    "valueString": "Immunization -1425"  
  },  
  {  
    "url": "http://hl7.org/fhir/StructureDefinition/instance-description",  
    "valueMarkdown": "Immunization-1425"  
  }  
],  
"profile": [  
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-immunization"  
]  
},  
"text": {  
  "status": "generated",  
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Immunization Details</div>"  
},  
"status": "completed",  
"vaccineCode": {  
  "coding": [  
    {  
      "system": "http://hl7.org/fhir/sid/cvx",  
      "code": "140",  
      "display": "Influenza"  
    }  
  ]  
}
```



```
    },
    {
      "system": "http://hl7.org/fhir/sid/ndc",
      "code": "33332032203",
      "display": "Afluria PF Quadrivalent 2022-2023 preservative-free quadrivalent suspension"
    }
  ],
  "text": "Influenza"
},
"patient": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"occurrenceDateTime": "1950-04-07T12:00:00Z",
"primarySource": true,
"location": {
  "reference": "Location/17"
},
"site": {
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/v3-ActSite",
      "code": "LA",
      "display": "Left Arm"
    }
  ]
}
```

```
    },
    "route": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/v3-RouteOfAdministration",
          "code": "IM"
        }
      ]
    },
    "doseQuantity": {
      "value": 0.5,
      "system": "http://unitsofmeasure.org",
      "code": "mL"
    }
  },
  "search": {
    "mode": "match"
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Immunization/1428-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Immunization",
    "id": "1428-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
```

```
"extension": [  
  {  
    "url": "http://hl7.org/fhir/StructureDefinition/instance-name",  
    "valueString": "Immunization -1428"  
  },  
  {  
    "url": "http://hl7.org/fhir/StructureDefinition/instance-description",  
    "valueMarkdown": "Immunization-1428"  
  }  
],  
"profile": [  
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-immunization"  
]  
},  
"text": {  
  "status": "generated",  
  "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Immunization Details</div>"  
},  
"status": "not-done",  
"statusReason": {  
  "coding": [  
    {  
      "system": "http://terminology.hl7.org/CodeSystem/v3-ActReason",  
      "code": "PATOBJ",  
      "display": "patient objection"  
    }  
  ]  
}
```

```
    }
  ]
},
"vaccineCode": {
  "coding": [
    {
      "system": "http://hl7.org/fhir/sid/cvx",
      "code": "52",
      "display": "Hepatits A"
    }
  ],
  "text": "Hepatits A"
},
"patient": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"occurrenceDateTime": "2022-12-01T12:00:00Z",
"primarySource": true,
"note": [
  {
    "text": "Refusal-Parental decision"
  }
]
},
"search": {
```

```
    "mode": "match"
  }
}
]
}
```

Laboratory

US Core Laboratory Result Observation Profile & US Core DiagnosticReport Profile for Report and Note Exchange

See Clinical Tests section.

Medications

US Core Medication Profile, US Core MedicationRequest Profile, US Core AllergyIntolerance Profile

GET [https://\[Base URL\]/MedicationRequest?intent=proposal&patient={id}](https://[Base URL]/MedicationRequest?intent=proposal&patient={id})

Example: <https://mdrfhirapi.mdronline.net/MedicationRequest?intent=proposal&patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
  "meta": {
    "lastUpdated": "2022-12-04T12:32:12Z"
  },
  "type": "searchset",
  "total": 1,
  "link": [
    {
      "relation": "self",
```

```

    "url": "https://mdrfhirapi.mdronline.net/MedicationRequest?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"entry": [
  {
    "fullUrl": "https://mdrfhirapi.mdronline.net/MedicationRequest/4918-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "resource": {
      "resourceType": "MedicationRequest",
      "id": "4918-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "meta": {
        "profile": [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-medicationrequest"
        ]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Medication Request Details</div>"
      },
      "status": "active",
      "intent": "proposal",
      "category": [
        {
          "coding": [
            {

```

```
"system": "http://terminology.hl7.org/CodeSystem/medicationrequest-category",
"code": "community",
"display": "Community"
}
],
"text": "Outpatient"
}
],
"reportedBoolean": true,
"medicationCodeableConcept": {
"coding": [
{
"system": "http://www.nlm.nih.gov/research/umls/rxnorm",
"code": "314076",
"display": "lisinopril 10 mg oral tablet"
}
],
"text": "lisinopril 10 mg oral tablet"
},
"subject": {
"reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
"display": "Lucien Bosco"
},
"encounter": {
"reference": "Encounter/7098-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
```

```
    },
    "authoredOn": "2022-12-01",
    "requester": {
      "reference": "Practitioner/14",
      "display": "Max Burger, MD"
    },
    "reasonReference": [
      {
        "reference": "Condition/7997-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
      }
    ]
  },
  "search": {
    "mode": "match"
  }
}
}
```

Patient Demographics

US Core Patient Profile

GET [https://\[Base URL\]/Patient?={id}](https://[Base URL]/Patient?={id})

Example: <https://mdrfhirapi.mdronline.net/Patient? id=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
```



```
"meta": {
  "lastUpdated": "2022-12-04T12:31:59Z"
},
"type": "searchset",
"total": 1,
"entry": [
  {
    "fullUrl": "patient?identifier=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "resource": {
      "resourceType": "Patient",
      "id": "70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "meta": {
        "profile": [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient"
        ]
      },
      "text": {
        "status": "generated",
        "div": "<div xmlns='http://www.w3.org/1999/xhtml'>Bosco Lucien Pharm934 Olson Highlands Lowell, MA, 01854Home: (555)5106-254 Work: unknown Mobile: unknownMRN: 70a867d3-31a3-4dfe-b0f2-55ee354ff4f7</div>"
      },
      "extension": [
        {
          "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-race",
          "extension": [
```

```
{
  "url": "text",
  "valueString": "White"
},
{
  "url": "ombCategory",
  "valueCoding": {
    "system": "urn:oid:2.16.840.1.113883.6.238",
    "code": "2106-3",
    "display": "White"
  }
}
],
},
{
  "extension": [
    {
      "url": "ombCategory",
      "valueCoding": {
        "system": "urn:oid:2.16.840.1.113883.6.238",
        "code": "2186-5",
        "display": "Not Hispanic or Latino"
      }
    }
  ],
}
{
```

```

    "url": "text",
    "valueString": "Not Hispanic or Latino"
  }
],
"url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity"
},
{
  "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-birthsex",
  "valueCode": "M"
},
{
  "url": "http://hl7.org/fhir/us/core/StructureDefinition/us-core-genderIdentity",
  "valueCodeableConcept": {
    "coding": [
      {
        "system": "http://www.snomed.org/",
        "code": "446151000124109",
        "display": "Male gender identity"
      }
    ],
    "text": "Male gender identity"
  }
}
],
"identifier": [

```

```
{
  "use": "usual",
  "type": {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/v2-0203",
        "code": "MR"
      }
    ]
  },
  "system": "urn:oid:0.1.2.3.4.5.6.7",
  "value": "70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "assigner": {
    "reference": "Organization/1",
    "display": "TechSoft, Inc. DBA Medical Systems"
  }
},
"active": true,
"name": [
  {
    "use": "official",
    "text": "Bosco Lucien Pharm",
    "family": "Bosco",
    "given": [
```

```
"Lucien"  
],  
"suffix": [  
  "Pharm"  
],  
"period": {  
  "start": "2022-11-19",  
  "end": "2022-12-04"  
}  
},  
{  
  "use": "old",  
  "text": "Bosco Lucien Pharm",  
  "family": "Bosco",  
  "given": [  
    "Lucien"  
  ],  
  "suffix": [  
    "Pharm"  
  ],  
  "period": {  
    "start": "2022-11-19",  
    "end": "2022-12-04"  
  }  
}
```

```
],
"telecom": [
  {
    "system": "phone",
    "value": "5555106254",
    "use": "home"
  }
],
"gender": "male",
"birthDate": "1940-03-29",
"deceasedBoolean": true,
"address": [
  {
    "line": [
      "934 Olson Highlands"
    ],
    "city": "Lowell",
    "state": "MA",
    "postalCode": "01854",
    "period": {
      "start": "2022-11-19"
    }
  }
],
{
  "use": "old",
```

```
"line": [  
  "934 Olson Highlands"  
],  
"city": "Lowell",  
"state": "MA",  
"postalCode": "01854",  
"period": {  
  "start": "2022-11-19",  
  "end": "2022-12-04"  
}  
}  
],  
"maritalStatus": {  
  "coding": [  
    {  
      "system": "http://terminology.hl7.org/CodeSystem/v3-MaritalStatus",  
      "code": "M",  
      "display": "Married"  
    }  
  ],  
  "text": "Married"  
},  
"contact": [  
  {  
    "relationship": [  

```

```
{
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/v2-0131",
      "code": "C"
    },
    {
      "system": "http://terminology.hl7.org/CodeSystem/v3-RoleCode",
      "code": "PRN",
      "display": "parent"
    }
  ]
},
{
  "name": {
    "use": "usual",
    "text": "Bosco Joseph"
  },
  "telecom": [
    {
      "system": "phone",
      "value": "5555106254",
      "use": "home"
    }
  ]
}
```



```
}
],
"communication": [
  {
    "language": {
      "coding": [
        {
          "system": "urn:ietf:bcp:47",
          "code": "en",
          "display": "English"
        }
      ]
    },
    "preferred": true
  }
],
"generalPractitioner": [
  {
    "reference": "Practitioner/14",
    "display": "Dr. Max Burger"
  }
],
"managingOrganization": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
```

```
    }
  }
}
]
```

Problems

US Core Condition Profile (USCDI v1 only) & US Core Condition Problems and Health Concerns Profile

See Health Concerns section.

Procedures

US Core Procedure Profile

GET [https://\[Base URL\]/ Procedure?patient={id}](https://[Base URL]/ Procedure?patient={id})

Example: <https://mdrfhirapi.mdronline.net/Procedure?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
  "resourceType": "Bundle",
  "id": "bundle-search-result",
  "meta": {
    "lastUpdated": "2022-12-04T12:32:15Z"
  },
  "type": "searchset",
  "total": 8,
  "link": [
    {
      "relation": "self",
```

```

    "url": "https://mdrfhirapi.mdronline.net/Procedure?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  }
],
"entry": [
  {
    "fullUrl": "https://mdrfhirapi.mdronline.net/Procedure/1537-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "resource": {
      "resourceType": "Procedure",
      "id": "1537-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "meta": {
        "extension": [
          {
            "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
            "valueString": "Capillary refill Time Nail Bed Example"
          },
          {
            "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
            "valueMarkdown": "Capillary refill Time Nail Bed Example"
          }
        ],
        "profile": [
          "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"
        ]
      },

```

```
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Procedures Details</div>"
},
"identifier": [
  {
    "value": "1537"
  }
],
"status": "completed",
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "44963-7"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "display": "Bosco Lucien "
},
"performedDateTime": "2022-12-03"
},
"search": {
```

```

    "mode": "match"
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Procedure/1525-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Procedure",
    "id": "1525-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Electrocardiogram"
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "Electrocardiogram, routine ECG with at least 12 leads; with interpretation and report"
        }
      ],
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"
      ]
    },
    "text": {

```

```

    "status": "generated",
    "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Procedures Details</div>"
  },
  "identifier": [
    {
      "value": "1525"
    }
  ],
  "status": "completed",
  "code": {
    "coding": [
      {
        "system": "http://snomed.info/sct",
        "code": "271334005",
        "display": "Electrocardiogram"
      },
      {
        "system": "http://www.ama-assn.org/go/cpt",
        "code": "93000",
        "display": "Electrocardiogram, routine ECG with at least 12 leads; with interpretation and
report"
      }
    ],
    "text": "Electrocardiogram"
  },
  "subject": {

```

```
"reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
"display": "Bosco Lucien "
},
"performedDateTime": "2022-05-17",
"performer": [
  {
    "actor": {
      "reference": "Practitioner/14"
    }
  }
],
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Procedure/1526-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Procedure",
    "id": "1526-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
```

```
"valueString": "Ear Wax Removal"
},
{
  "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
  "valueMarkdown": "Removal impacted cerumen using irrigation/lavage, unilateral"
}
],
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"
]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Procedures Details</div>"
},
"identifier": [
  {
    "value": "1526"
  }
],
"status": "completed",
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
```



```
"code": "385904005",
"display": "Removal of ear wax"
},
{
  "system": "http://www.ama-assn.org/go/cpt",
  "code": "69209",
  "display": "Removal impacted cerumen using irrigation/lavage, unilateral"
}
],
"text": "Removal of ear wax"
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "display": "Bosco Lucien "
},
"performedDateTime": "2022-05-17",
"performer": [
  {
    "actor": {
      "reference": "Practitioner/14"
    }
  }
]
},
"search": {
```

```

    "mode": "match"
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Procedure/1524-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Procedure",
    "id": "1524-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Nebulizer Treatment"
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "Pressurized or nonpressurized inhalation treatment for acute airway obstruction for therapeutic purposes and/or for diagnostic purposes such as sputum induction with an aerosol generator, nebulizer, metered dose inhaler or intermittent positive pressure breathing (IPPB) device"
        }
      ],
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"
      ]
    }
  },
}

```

```

"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Procedures Details</div>"
},
"identifier": [
  {
    "value": "1524"
  }
],
"status": "completed",
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "56251003",
      "display": "Respiratory medication administered by nebulizer"
    },
    {
      "system": "http://www.ama-assn.org/go/cpt",
      "code": "94640",
      "display": "Pressurized or nonpressurized inhalation treatment for acute airway obstruction for
therapeutic purposes and/or for diagnostic purposes such as sputum induction with an aerosol
generator, nebulizer, metered dose inhaler or intermittent positive pressure breathing (IPPB) device"
    }
  ],
  "text": "Respiratory medication administered by nebulizer"
}

```

```
    },
    "subject": {
      "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
      "display": "Bosco Lucien "
    },
    "performedDateTime": "2022-05-17",
    "performer": [
      {
        "actor": {
          "reference": "Practitioner/14"
        }
      }
    ],
  },
  "search": {
    "mode": "match"
  }
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Procedure/1528-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Procedure",
    "id": "1528-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
```

```

{
  "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
  "valueString": "DXA Femur-L ArMass BMD Example"
},
{
  "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
  "valueMarkdown": "DXA Femur-L ArMass BMD Example"
}
],
"profile": [
  "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"
]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">Procedures Details</div>"
},
"identifier": [
  {
    "value": "1528"
  }
],
"status": "completed",
"code": {
  "coding": [

```

```
{
  "system": "http://snomed.info/sct",
  "code": "80954-1"
}
],
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "display": "Bosco Lucien "
},
"performedDateTime": "2022-03-09",
"performer": [
  {
    "actor": {
      "reference": "Practitioner/14"
    }
  }
],
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Procedure/1527-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
```

```
"resource": {
  "resourceType": "Procedure",
  "id": "1527-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "meta": {
    "extension": [
      {
        "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
        "valueString": "Capillary refill Time Nail Bed Example"
      },
      {
        "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
        "valueMarkdown": "Capillary refill Time Nail Bed Example"
      }
    ],
    "profile": [
      "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"
    ]
  },
  "text": {
    "status": "generated",
    "div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Procedures Details</div>"
  },
  "identifier": [
    {
      "value": "1527"
    }
  ]
}
```

```
}
],
"status": "completed",
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "44963-7"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "display": "Bosco Lucien "
},
"performedDateTime": "2022-01-26",
"performer": [
  {
    "actor": {
      "reference": "Practitioner/14"
    }
  }
]
},
"search": {
```



```
"mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Procedure/1535-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Procedure",
    "id": "1535-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "Pulse intensity Palpation Example"
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "Pulse intensity Palpation Example"
        }
      ],
      "profile": [
        "http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"
      ]
    },
    "text": {
      "status": "generated",
```

```
"div": "<div xmlns=\"http://www.w3.org/1999/xhtml\">Procedures Details</div>"
},
"identifier": [
  {
    "value": "1535"
  }
],
"status": "completed",
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "44974-4"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "display": "Bosco Lucien "
},
"performedDateTime": "2022-01-26",
"performer": [
  {
    "actor": {
      "reference": "Practitioner/14"
```

```

    }
  }
]
},
"search": {
  "mode": "match"
}
},
{
  "fullUrl": "https://mdrfhirapi.mdronline.net/Procedure/1534-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "resource": {
    "resourceType": "Procedure",
    "id": "1534-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
    "meta": {
      "extension": [
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-name",
          "valueString": "EKG impression Example"
        },
        {
          "url": "http://hl7.org/fhir/StructureDefinition/instance-description",
          "valueMarkdown": "EKG impression Example"
        }
      ],
      "profile": [

```

```
"http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure"
]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\">Procedures Details</div>"
},
"identifier": [
  {
    "value": "1534"
  }
],
"status": "completed",
"code": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "8601-7"
    }
  ]
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "display": "Bosco Lucien "
},
},
```

```
"performedDateTime": "2022-01-26",
"performer": [
  {
    "actor": {
      "reference": "Practitioner/14"
    }
  }
],
"search": {
  "mode": "match"
}
]
```

Provenance

US Core Provenance Profile

GET [https://\[Base URL\]/Provenance/{id}](https://[Base URL]/Provenance/{id})

Example: <https://mdrfhirapi.mdronline.net/Provenance/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
  "resourceType": "Provenance",
  "id": "70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
  "meta": {
    "lastUpdated": "2022-12-05T01:25:45Z",
    "profile": [
```

```
"http://hl7.org/fhir/us/core/StructureDefinition/us-core-provenance"
]
},
"target": [
  {
    "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  },
  {
    "reference": "Practitioner/14"
  },
  {
    "reference": "Location/17"
  },
  {
    "reference": "Organization/1"
  },
  {
    "reference": "AllergyIntolerance/1677-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  },
  {
    "reference": "AllergyIntolerance/1675-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  },
  {
    "reference": "AllergyIntolerance/1676-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  },
  },
}
```

```
{
  "reference": "AllergyIntolerance/1679-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "AllergyIntolerance/1678-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "AllergyIntolerance/1680-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "CarePlan/11470-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7092-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "CareTeam/7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "RelatedPerson/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
```

```
"reference": "CareTeam/7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "CareTeam/7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "CareTeam/7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "CareTeam/7080-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7080-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "CareTeam/7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
```



```
},
{
  "reference": "Encounter/7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11415-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11417-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11419-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11481-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7086-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11497-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11469-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
}
```

```
{
  "reference": "Condition/11470-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11443-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11456-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7081-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11444-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11482-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Condition/11454-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7082-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
```

```
"reference": "Condition/11455-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7074-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Device/12-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DiagnosticReport/7074-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/R7074-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DiagnosticReport/7075-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/R7075-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DiagnosticReport/7101-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/R7101-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
```

```
},
{
  "reference": "DocumentReference/7074-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7075-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7075-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7076-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7077-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7078-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7079-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7080-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
}
```

```
{
  "reference": "DocumentReference/7081-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7082-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7083-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7086-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7092-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "DocumentReference/7101-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7101-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Goal/11479-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
```

```
"reference": "Goal/11480-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Immunization/1425-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Immunization/1428-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "MedicationRequest/4912-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "MedicationRequest/4919-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Encounter/7098-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "MedicationRequest/4918-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "MedicationRequest/4913-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1524-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
```

```
},
{
  "reference": "Procedure/1526-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1529-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1530-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1531-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1532-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1533-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1537-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1527-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
}
```

```
{
  "reference": "Procedure/1528-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1534-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1535-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1536-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
{
  "reference": "Procedure/1525-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
}
],
"recorded": "2022-12-04T08:25:49Z",
"agent": [
  {
    "type": {
      "coding": [
        {
          "system": "http://terminology.hl7.org/CodeSystem/provenance-participant-type",
          "code": "author",
          "display": "Author"
        }
      ]
    }
  }
]
```



```
    }
  ],
  "text": "Author"
},
"who": {
  "reference": "Organization/1",
  "display": "TechSoft, Inc. DBA Medical Systems"
},
"onBehalfOf": {
  "reference": "Practitioner/14",
  "display": "Dr.Max Burger"
}
},
{
  "type": {
    "coding": [
      {
        "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-provenance-participant-type",
        "code": "transmitter",
        "display": "Transmitter"
      }
    ],
    "text": "Transmitter"
  },
  "who": {
```

```
"reference": "Practitioner/14",
"display": "Dr.Max Burger"
},
"onBehalfOf": {
"reference": "Organization/1",
"display": "TechSoft, Inc. DBA Medical Systems"
}
}
]
```

Smoking Status

US Core Smoking Status Observation Profile

GET [https://\[Base URL\]/Observation?category=social-history&date=\[YYYY-MM-DD\]&patient={id}](https://[Base URL]/Observation?category=social-history&date=[YYYY-MM-DD]&patient={id})

Example: <https://mdrfhirapi.mdronline.net/Observation?category=social-history&date=2022-11-29T11:12:48Z&patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
"resourceType": "Bundle",
"id": "bundle-search-result",
"meta": {
"lastUpdated": "2022-12-05T01:22:46Z"
},
"type": "searchset",
"total": 1,
"link": [
{
```

```

    "relation": "self",

    "url": "https://mdrfhirapi.mdronline.net/Observation?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7&category=social-history"

  }

],

"entry": [

  {

    "fullUrl": "https://mdrfhirapi.mdronline.net/Observation/H0P260-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-s-h-",

    "resource": {

      "resourceType": "Observation",

      "id": "H0P260-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-s-h-",

      "text": {

        "status": "generated",

        "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Social History</div>"

      },

      "status": "final",

      "category": [

        {

          "coding": [

            {

              "system": "http://hl7.org/fhir/us/core/CodeSystem/us-core-tags",

              "code": "sdoh",

              "display": "SDOH"

            }

          ]

        }

      ]

    }

  ]

```

```
},
{
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/observation-category",
      "code": "survey",
      "display": "Survey"
    }
  ]
},
{
  "coding": [
    {
      "system": "http://terminology.hl7.org/CodeSystem/observation-category",
      "code": "social-history",
      "display": "Social History"
    }
  ],
  "text": "Tobacco smoking status"
}
],
"code": {
  "coding": [
    {
      "system": "http://loinc.org",
```

```
"code": "72166-2",
  "display": "Tobacco smoking status"
},
],
"text": "Tobacco smoking status"
},
"subject": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
},
"effectiveDateTime": "2022-11-29T11:12:48Z",
"valueQuantity": {
  "value": 3
},
"performer": [
  {
    "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
  },
  {
    "reference": "Practitioner/14"
  }
]
},
"search": {
  "mode": "match"
}
```

```
}  
]  
}
```

Unique Device Identifier(s) for Patient's Implantable Device(s)

US Core ImplantableDevice Profile

GET [https://\[Base URL\]/Device?patient={id}](https://[Base URL]/Device?patient={id})

Example: <https://mdrfhirapi.mdronline.net/Device?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{  
  "resourceType": "Bundle",  
  "id": "bundle-search-result",  
  "meta": {  
    "lastUpdated": "2022-12-04T12:32:10Z"  
  },  
  "type": "searchset",  
  "total": 1,  
  "link": [  
    {  
      "relation": "self",  
      "url": "https://mdrfhirapi.mdronline.net/Device?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"  
    }  
  ],  
  "entry": [  
    {  
      "fullUrl": "https://mdrfhirapi.mdronline.net/Device/12-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",  
      "resource": {
```

```
"resourceType": "Device",
"id": "12-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
"meta": {
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-implantable-device"
  ]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Implantable defibrillator, device (physical
object)</div>"
},
"identifier": [
  {
    "value": "12"
  }
],
"udiCarrier": [
  {
    "deviceIdentifier": "43069338026389",
    "carrierHRF": "(01)43069338026389(11)000302(17)250317(10)1134(21)842026117977"
  }
],
"status": "inactive",
"distinctIdentifier": "43069338026389",
"manufactureDate": "2000-03-02",
```

```
"expirationDate": "2025-03-17",
"lotNumber": "1134",
"serialNumber": "842026117977",
"deviceName": [
  {
    "name": "Implantable defibrillator, device (physical object)",
    "type": "udi-label-name"
  }
],
"type": {
  "coding": [
    {
      "system": "http://snomed.info/sct",
      "code": "72506001",
      "display": "Implantable defibrillator"
    }
  ],
  "text": "Implantable defibrillator"
},
"patient": {
  "reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7"
}
}
}
]
```



```
}
```

Vital Signs

FHIR Core VitalSigns Profile

GET [https://\[Base URL\]/Observation?category=vital-signs&date=\[YYYY-MM-DD\]&patient={id}](https://[Base URL]/Observation?category=vital-signs&date=[YYYY-MM-DD]&patient={id})

Example: <https://mdrfhirapi.mdronline.net/Observation?category=vital-signs&date=2022-11-22T06:30:00Z&patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7>

Response: 200 (Success)

```
{
```

```
  "resourceType": "Bundle",
```

```
  "id": "bundle-search-result",
```

```
  "meta": {
```

```
    "lastUpdated": "2022-12-05T01:23:51Z"
```

```
  },
```

```
  "type": "searchset",
```

```
  "total": 1,
```

```
  "link": [
```

```
    {
```

```
      "relation": "self",
```

```
      "url": "https://mdrfhirapi.mdronline.net/Observation?patient=70a867d3-31a3-4dfe-b0f2-55ee354ff4f7&code=&category=v-s"
```

```
    }
```

```
  ],
```

```
  "entry": [
```

```
    {
```

```
      "fullUrl": "https://mdrfhirapi.mdronline.net/Observation/11436-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-v-s-",
```

```
      "resource": {
```

```
"resourceType": "Observation",
"id": "11436-70a867d3-31a3-4dfe-b0f2-55ee354ff4f7-v-s-",
"meta": {
  "profile": [
    "http://hl7.org/fhir/us/core/StructureDefinition/us-core-blood-pressure"
  ]
},
"text": {
  "status": "generated",
  "div": "<div xmlns=\\"http://www.w3.org/1999/xhtml\\">Observation : BloodPressure</div>"
},
"status": "final",
"category": [
  {
    "coding": [
      {
        "system": "http://terminology.hl7.org/CodeSystem/observation-category",
        "code": "vital-signs",
        "display": "Vital Signs"
      }
    ],
    "text": "Vital Signs"
  }
],
"subject": {
```

```
"reference": "Patient/70a867d3-31a3-4dfe-b0f2-55ee354ff4f7",
"display": "Bosco Lucien"
},
"effectiveDateTime": "2022-11-22T06:30:00Z",
"issued": "2022-11-22T06:30:00Z",
"code": {
  "coding": [
    {
      "system": "http://loinc.org",
      "code": "85354-9",
      "display": "Blood pressure panel with all children optional"
    }
  ],
  "text": "Blood pressure systolic and diastolic"
},
"component": [
  {
    "code": {
      "coding": [
        {
          "system": "http://loinc.org",
          "code": "8480-6",
          "display": "Systolic blood pressure"
        }
      ]
    }
  ],

```

```
"text": "Systolic blood pressure"
},
"valueQuantity": {
  "value": 129,
  "unit": "mmHg",
  "system": "http://unitsofmeasure.org",
  "code": "mm[Hg]"
}
},
{
  "code": {
    "coding": [
      {
        "system": "http://loinc.org",
        "code": "8462-4",
        "display": "Diastolic blood pressure"
      }
    ],
    "text": "Diastolic blood pressure"
  },
  "valueQuantity": {
    "value": 85,
    "unit": "mmHg",
    "system": "http://unitsofmeasure.org",
    "code": "mm[Hg]"
  }
}
```

```
    }  
  }  
]  
,  
"search": {  
  "mode": "match"  
}  
}  
]  
}
```

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