



RIAYATI Program **Interface Control Document (FHIR R4 API)**

Document ID : **RYT-HIE-ICD-013**

Date: 14 Jul 2025 (V1.2)



Table of Contents

RIAYATI Program	1
1 About this document	5
1.1 Purpose of this Document.....	5
1.2 Audience.....	5
1.3 Abbreviations and Terms	5
2 Introduction	6
2.1 RIAYATI Program.....	6
2.2 Health Information Exchange.....	6
2.3 FHIR	6
2.4 FHIR APIs.....	6
3 Security	7
3.1 Authentication API.....	7
3.1.1 Request Parameters.....	7
4 Riayati FHIR APIs	8
4.1 Common Standards	8
4.1.1 Endpoint.....	8
4.1.2 Operations	9
4.1.3 Headers	9
4.2 Organization Lookup	10
4.2.1 FHIR Mapping.....	10
4.2.2 Lookup	10
4.3 Care Provider Lookup	11
4.3.1 FHIR Mapping.....	11
4.3.2 Lookup	11
4.4 Patient	12
4.4.1 FHIR Mapping.....	12
4.4.2 References	13
4.4.3 Value Sets	13
4.4.4 Patient Demographic Query	13
4.4.5 Get Patient Details.....	14
4.5 Encounter	15
4.5.1 FHIR Mapping.....	15
4.5.2 References	17
4.5.3 Value Sets	17
4.5.4 Get Encounters.....	17
4.5.5 Get Encounter Details	18
4.6 Immunization	19



4.6.1	FHIR Mapping.....	19
4.6.2	References	21
4.6.3	Value Sets	21
4.6.4	Get Immunizations.....	22
4.7	Medication Statement	24
4.7.1	FHIR Mapping.....	24
4.7.2	References	26
4.7.3	Value Sets	26
4.7.4	Get MedicationStatement	26
4.7.5	Get Medication.....	27



Version and Distribution History

Version #	Date	Brief Comments on Change	Author
0.1	22-May-2023	Draft Specification	MOHAP
1.0	23-Jun-2023	Baselined version for AI-Hosn	MOHAP
1.1	05-Jul-2023	Organization API changes	MOHAP
1.2	14-Jul-2025	Added Medication Statement	MOHAP

Table 1: Version History

Document Acceptance and Sign-Off

Name	Signature	Date
MOHAP		25-Dec-2025

Table 2: Document Acceptance and Sign-off



1 About this document

1.1 Purpose of this Document

This document is intended to provide the detailed specification of the FHIR API of RIAYATI Health Information Exchange. Using this document, the participants can develop FHIR API based interfaces:

- To lookup the Care Provider and Organisations.
- To query and retrieve the details such as Patient Demographic, Encounters and Vaccination details.

1.2 Audience

This document is intended for the Participants (implementers) who has the FHIR capabilities from the Health Organisations that are associated with Ministry of Health and Preventions (MOHAP).

1.3 Abbreviations and Terms

Abbreviation	Term
EMR	Electronic Medical Record
FHIR	Fast Healthcare Interoperability Resources
HIE	Health Information Exchange
HTTP	Hyper Text Transport Protocol
IHE	Integrating Health Enterprise
MOHAP	Ministry of Health and Prevention
SOAP	Simple Object Access Protocol
UAE	United Arab Emirates

Table 3: Abbreviations and Terms



2 Introduction

2.1 RIAYATI Program

His Highness Sheikh Mohammed bin Rashid Al Maktoum announced in 2015 the initiative to establish a Health Information Exchange system – “RIAYATI” for patients in the Northern Emirates, UAE. In order to facilitate the movement of patients across healthcare providers, as well as connect public and private hospitals and clinics to share and exchange Health Records.

The RIAYATI Service will be the primary force driving an integrated, sustainable modern digital health platform that improves the safety of the patients, healthcare quality and population health in general through the safe sharing of medical data and information of all healthcare system beneficiaries across the Northern Emirates.

2.2 Health Information Exchange

RIAYATI Health Information Exchange will make quality healthcare data available for improvement of the patient care and support the futuristic innovative services like Clinical Decision Support, UAE specific clinical pathways, advanced analytics and Artificial Intelligence.

The RIAYATI HIE has various components as mentioned below to support the above-mentioned objectives.

- Enterprise Service Bus
- Registries
 - Patient Registry
 - Provider Registry
 - Organization Registry
 - Document Registry
 - Terminology Registry
- Repositories
 - Clinical Data
 - Documents

2.3 FHIR

The Fast Healthcare Interoperability Resources standard is a set of rules and specifications for exchanging electronic healthcare data. It is designed to be flexible and adaptable so that it can be used in a wide range of settings and with different healthcare information systems.

2.4 FHIR APIs

FHIR Resource can be used in the RESTful Application Programming Interface (API) with the GET, POST, PUT and DELETE HTTP methods. Using these FHIR APIs the consumer applications can retrieve particular set of information from the HIE, Register Patient or Record artefacts for a given Patients with HIE or update those existing information.

3 Security

3.1 Authentication API

The URL to get the Access Token for the Riayati SSO from the EMR/HIS system will be:

https://[server]/api/riayati/auth/token

The HTTP POST method to be used to get the Access token with the mentioned POST Parameters.

3.1.1 Request Parameters

The following Request Body parameters are to be passed in the HTTP POST request.

URL parameter	Notes
grant_type	Fixed value: "client_credentials"
client_id	Unique Client ID provided by Riayati team for the EMR Instance
client_secret	Client Secret key.

Table 4: Authentication Endpoint - Request Parameters



4 Riayati FHIR APIs

Functional area	APIs
Registry Lookup	Organisation Lookup Care Provider Lookup Location Lookup
Patient	Patient Demographic Query Get Patient Details
Encounter	Get Encounters Get Encounter Details
Immunization	Get Immunizations
Medication	Get Medication Statements Get Medication

Table 5: Riayati FHIR APIs

4.1 Common Standards

4.1.1 Endpoint

Below is the **Base URL** for Riayati FHIR API R4 version:

[https://\[server\]/fhir/r4/](https://[server]/fhir/r4/)



4.1.2 Operations

With the FHIR APIs, the below three operations (HTTP methods) are supported.

- **GET**: Used to retrieve the existing resources and requires a resource id of HIE or search parameters to identify the resource or resources required.
- **POST**: Used to add new resources, there must not be an id in the URL or the resource's content. The server will assign its own id to the resource

*The **DELETE** Operation is not supported with the RIAYATI HIE. Instead of DELETE, the Status of the respective resource needs to be updated as inactive / respective statuses of the respective FHIR Resources using **PUT** operation.*

4.1.3 Headers

The below set of HTTP Headers to be used for FHIR APIs.

Header	Notes
content_type	"application/fhir+xml" or "application/fhir+json"
accept	"application/fhir+xml" or "application/fhir+json"
client_id	Unique Client ID provided by Riayati team for the EMR Instance
token	Access Token that is obtained with Authentication API.

Table 6: Riayati FHIR APIs - Headers

4.2 Organization Lookup

The Organisations that are associated with the MOHAP can be looked up with this API. The Organization resource references with the other FHIR resources to be passed with the Identifier that are assigned by the RIAYATI HIE for that Organisation.

4.2.1 FHIR Mapping

Organization

Name	Card.	Type	Description & Constraints
.. Organization		DomainResource	A grouping of people or organizations with a common purpose + The organization SHALL at least have a name or an id, and possibly more than one Elements defined in Ancestors: id, meta, implicitRules, language, text, contained, extension, modifierExtension
... identifier	0..*	Identifier	Identifies this organization across multiple systems
... name	0..1	string	Name used for the organization

Table 1: Organization Resource

4.2.2 Lookup

The Organizations can be looked up by the external application with an HTTP GET call against the below Organization endpoint.

```
GET [base]/Organization/<identifier>
```



4.3 Care Provider Lookup

The Care Providers that are associated with the MOHAP can be looked up with this API. The Practitioner resource references with the other FHIR resources to be passed with the Identifier that are assigned by the RIAYATI HIE for that Care Provider.

4.3.1 FHIR Mapping

Practitioner

Name	Card.	Type	Description & Constraints
.. Practitioner		DomainResource	A person with a formal responsibility in the provisioning of healthcare or related services Elements defined in Ancestors: id, meta, implicitRules, language, text, contained, extension, modifierExtension
... identifier	0..*	Identifier	A identifier for the person as this agent
... name	0..*	HumanName	The name(s) associated with the practitioner

Table 2: Practitioner Resource

4.3.2 Lookup

The Care Providers can be looked up by the external application with an HTTP GET call against the below Practitioner endpoint.

```
GET [base]/Practitioner/<identifier>
```

4.4 Patient

The Patient Registry also known as Enterprise Master Patient Index (EMPI) manages the Patient Identification across Health Organisation. With the Patient Registry the MOHAP associated Organisations can query the Patient Demographic details using search parameters, Register Patient, Update Demographic data for an existing Patient record and to find the Local Identifier of another Health Organisation of MOHAP.

4.4.1 FHIR Mapping

Patient

Name	Card.	Type	Description & Constraints
.. Patient		DomainResource	Information about an individual or animal receiving health care services Elements defined in Ancestors: id, meta, implicitRules, language, text, contained, extension, modifierExtension
... identifier	0..*	Identifier	An identifier for this patient
... extension[citizenship]	0..1	CodeableConcept	Citizenship URL: http://hl7.org/fhir/StructureDefinition/patient-citizenship
... extension[entered-on]	0..1	CodeableConcept	Entered on URL: http://intersystems.com/fhir/extn/sda3/lib/patient-entered-on
... extension[race]	0..1	CodeableConcept	Race URL: http://intersystems.com/fhir/extn/sda3/lib/patient-races
... extension[religion]	0..1	CodeableConcept	Religion URL: http://hl7.org/fhir/StructureDefinition/patient-religion
... name	0..*	HumanName	A name associated with the patient
... telecom	0..*	ContactPoint	A contact detail for the individual
... gender	0..1	code	male female other unknown
... birthDate	0..1	date	The date of birth for the individual
... deceased[x]	0..1		Indicates if the individual is deceased or not
.... deceasedBoolean		boolean	
.... deceasedDateTime		dateTime	
... address	0..*	Address	Addresses for the individual
... maritalStatus	0..1	CodeableConcept	Marital (civil) status of a patient



... multipleBirth[x]	0..1		Whether patient is part of a multiple birth
.... multipleBirthBoolean		boolean	
.... multipleBirthInteger		integer	
... communication	0..*	BackboneElement	A list of Languages which may be used to communicate with the patient about his or her health
.... language	1..1	CodeableConcept	The language which can be used to communicate with the patient about his or her health
.... preferred	0..1	boolean	Language preference indicator
... managingOrganization	0..1	Reference(Organization)	Organization that is the custodian of the patient record

Table 3: Patient Resource

4.4.2 References

- Organisation

4.4.3 Value Sets

Path	Definition	Reference
Patient.gender	The gender of a person used for administrative purposes.	AdministrativeGender
Patient.maritalStatus	The domestic partnership status of a person.	Marital Status Codes
Patient.communication.language	A human language.	Common Languages

Table 4: Patient Resource's Terminology bindings

4.4.4 Patient Demographic Query

The Query Patient Resource can be conducted by the external application by executing an HTTP GET against the Patient Demographics Supplier's Patient Resource URL.

GET [base]/Patient?<query>

The <query> represents a series of encoded name-value pairs representing the filter for the query as well as control parameters to modify the behaviour of the Patient Demographics Supplier such as response format, or pagination.

All query parameter listed below values shall be appropriately encoded per RFC3986 “percent” encoding rules. Note that percent encoding does restrict the character set to a subset of ASCII characters which is used for encoding all other characters used in the URL.

“identifier”:	This repeating parameter of type token, when supplied, specifies an identifier associated with the patient whose information is being queried (e.g., a local identifier, account identifier, etc.). If multiple instances of this parameter are provided in the query, the query represents a logical AND condition. For example, a query searching for patients having identifier 145 assigned by authority “2.16.840.1.113883.3.7326” and Emirates ID 784197710305080 would be represented as:
“birthdate”:	This parameter of type date, when supplied, specifies the birth date and time of the person whose information is being queried.
“gender”:	This parameter of type token, when supplied, specifies the administrative gender of the person whose information is being queried.

```
GET [base]/Patient?identifier=urn:oid:2.16.840.1.113883.3.7326|784197710305080&birthdate=1977-01-08&gender=male
```

4.4.5 Get Patient Details

The complete Patient Demographic information from the RIAYATI’s Patient Registry (EMPI) can be retrieved using the below end point.

```
GET [base]/Patient/<EMPI ID>
```

4.5 Encounter

A patient encounter is further characterized by the setting in which it takes place. Amongst them are ambulatory, emergency, home health, inpatient and virtual encounters. An Encounter encompasses the lifecycle from pre-admission, the actual encounter (for ambulatory encounters), and admission, stay and discharge (for inpatient encounters). During the encounter the patient may move from practitioner to practitioner and location to location.

Because of the broad scope of Encounter, not all elements will be relevant in all settings. For this reason, admission/discharge related information is kept in a separate Hospitalization component within Encounter. The class element is used to distinguish between these settings, which will guide further validation and application of business rules.

There is also substantial variance from organization to organization (and between jurisdictions and countries) on which business events translate to the start of a new Encounter, or what level of aggregation is used for Encounter. For example, each single visit of a practitioner during a hospitalization may lead to a new instance of Encounter, but depending on local practice and the systems involved, it may well be that this is aggregated to a single instance for a whole hospitalization. Even more aggregation may occur where jurisdictions introduce groups of Encounters for financial or other reasons. Encounters can be aggregated or grouped under other Encounters using the “part of” element.

Encounter instances may exist before the actual encounter takes place to convey pre-admission information, including using Encounters elements to reflect the planned start date or planned encounter locations. In this case the status element is set to 'planned'.

The Hospitalization component is intended to store the extended information relating to a hospitalization event. It is always expected to be the same period as the encounter itself. Where the period is different, another encounter instance should be used to capture this information as a partOf this encounter instance.

The Procedure and encounter have references to each other, and these should be to different procedures; one for the procedure that was performed during the encounter (stored in Procedure.encounter), and another for cases where an encounter is a result of another procedure (stored in Encounter.indication) such as a followup encounter to resolve complications from an earlier procedure.

4.5.1 FHIR Mapping

Encounter

Name	Card.	Type	Description & Constraints
.. Encounter		DomainResource	An interaction during which services are provided to the patient Elements defined in Ancestors: id, meta, implicitRules, language, text, contained, extension, modifierExtension
... identifier	0..*	Identifier	Encounter Number
... extension[encounter-m-r-n]	0..1	String	Encounter MRN URL: http://intersystems.com/fhir/extn/sda3/lib/encounter-m-r-n



... extension[encounter-m-r-n-a-a]	0..1	String	Encounter MRN Assigning Authority URL: http://intersystems.com/fhir/extn/sda3/lib/encounter-m-r-n-a-a
... extension[encounter-entered-at]	0..1	Reference(Organization)	Encounter Facility URL: http://intersystems.com/fhir/extn/sda3/lib/encounter-entered-at
... extension[encounter-entered-on]	0..1	dateTime	Entered On URL: http://intersystems.com/fhir/extn/sda3/lib/encounter-entered-on
... extension[encounter-to-time]	0..1	dateTime	Encounter To Time URL: http://intersystems.com/fhir/extn/sda3/lib/encounter-to-time
... status	1..1	code	planned arrived triaged in-progress onleave finished cancelled +
... class	0..1	Coding	inpatient outpatient ambulatory emergency +
... period	0..1	Period	The start and end time of the encounter
... priority	0..1	CodeableConcept	Indicates the urgency of the encounter
... subject	0..1	Reference(Patient)	The patient present at the encounter
... participant	0..*	BackboneElement	List of participants involved in the encounter
.... type	0..*	CodeableConcept	Role of participant in encounter
.... individual	0..1	Reference(Practitioner)	Persons involved in the encounter other than the patient
... reasonCode	0..*	CodeableConcept	Admit reason
... hospitalization	0..1	BackboneElement	Details about the admission to a healthcare service
.... extension[encounter-assigned-bed]	0..1	String	Assigned Bed URL: http://intersystems.com/fhir/extn/sda3/lib/encounter-assigned-bed
.... extension[encounter-assigned-room]	0..1	String	Assigned Room URL: http://intersystems.com/fhir/extn/sda3/lib/encounter-assigned-room
.... extension[encounter-assigned-ward]	0..1	String	Assigned Ward URL: http://intersystems.com/fhir/extn/sda3/lib/encounter-assigned-ward
.... admitSource	0..1	CodeableConcept	From where patient was admitted (physician referral, transfer)
... serviceProvider	0..1	Reference(Organization)	The custodian organization of this Encounter record

Table 5: Encounter Resource

4.5.2 References

- Organisation
- Patient
- Practitioner

4.5.3 Value Sets

Path	Definition	Reference
Encounter.status	Current state of the encounter	EncounterStatus
Encounter.class	Classification of the encounter	ActEncounterCode
Encounter.serviceType	Broad categorization of the service that is to be provided.	ServiceType
Encounter.priority	Indicates the urgency of the encounter.	v3 Code System ActPriority
Encounter.participant.type	Role of participant in encounter	ParticipantType
Encounter.reasonCode	Reason why the encounter takes place.	Encounter Reason Codes
Encounter.hospitalization.admitSource	From where the patient was admitted.	AdmitSource
Encounter.hospitalization.dischargeDisposition	Discharge Disposition	DischargeDisposition

Table 6: Encounter Resource's Terminology Bindings

4.5.4 Get Encounters

The Encounter list can be retrieved by the external application with an HTTP GET call against the below Encounter endpoint.

```
GET [base]/Patient/<EMPI ID>/Encounter?<query>
```

The <query> represents a series of encoded name-value pairs representing the filter for the query as well as control parameters to modify the response format, or pagination.

All query parameter listed below values shall be appropriately encoded per RFC3986 “percent” encoding rules. Note that percent encoding does restrict the character set to a subset of ASCII characters which is used for encoding all other characters used in the URL.

“class”: Encounter Class (inpatient | outpatient | ambulatory | emergency +)
 “identifier”: Identifier(s) by which this encounter is known.



4.5.5 Get Encounter Details

The complete Encounter information from the RIAYATI HIE can be retrieved using the below end point.

```
GET [base]/Encounter/<Encounter ID>
```

The Encounter ID can be identified with the response of the Get Encounter list.

4.6 Immunization

4.6.1 FHIR Mapping

Immunization

Name	Card.	Type	Description & Constraints
.. Immunization		DomainResource	Immunization event information. + If immunization was administered (notGiven=false) then explanation.reasonNotGiven SHALL be absent. + If immunization was not administered (notGiven=true) then there SHALL be no reaction nor explanation.reason present. Elements defined in Ancestors: id, meta, implicitRules, language, text, contained, extension, modifierExtension
... identifier	0..*	Identifier	Filler ID and Placer ID
... extension[administered-amount]	0..1	String	Administered Amount URL: http://intersystems.com/fhir/extn/sda3/lib/administration-administered-amount
... extension[administered-units]	0..1	String	Administered Units URL: http://intersystems.com/fhir/extn/sda3/lib/administration-administered-units
... extension[administering-provider]	0..1	Reference(Practitioner)	Administering Provider URL: http://intersystems.com/fhir/extn/sda3/lib/administration-administering-provider
... extension[administration-site]	0..1	CodeableConcept	Administration site URL: http://intersystems.com/fhir/extn/sda3/lib/administration-administration-site
... extension[administration-status]	0..1	CodeableConcept	Administration status URL: http://intersystems.com/fhir/extn/sda3/lib/administration-administration-status
... extension[administration-expiry-date]	0..1	dateTime	Administration Expiry Date URL: http://intersystems.com/fhir/extn/sda3/lib/administration-expiry-date
... extension[administration-lot-number]	0..1	String	Lot Number URL: http://intersystems.com/fhir/extn/sda3/lib/administration-lot-number



... extension[administration-manufacturer-name]	0..1	String	Manufacturer Name URL: http://intersystems.com/fhir/extn/sda3/lib/administration-manufacturer-name
... extension[vaccination-confidentiality-code]	0..1	CodeableConcept	Confidentiality Code URL: http://intersystems.com/fhir/extn/sda3/lib/vaccination-confidentiality-code
... extension[vaccination-dosage-form]	0..1	CodeableConcept	Dosage Form URL: http://intersystems.com/fhir/extn/sda3/lib/vaccination-dosage-form
... extension[vaccination-drug-product]	0..1	Reference(Medication)	Drug Product URL: http://intersystems.com/fhir/extn/sda3/lib/vaccination-drug-product
... extension[vaccination-encounter-number]	0..1	String	Encounter Number URL: http://intersystems.com/fhir/extn/sda3/lib/vaccination-encounter-number
... extension[vaccination-entered-on]	0..1	dateTime	Entered On URL: http://intersystems.com/fhir/extn/sda3/lib/vaccination-entered-on
... extension[vaccination-frequency]	0..1	CodeableConcept	Frequency URL: http://intersystems.com/fhir/extn/sda3/lib/vaccination-frequency
... extension[vaccination-form-time]	0..1	dateTime	From Time URL: http://intersystems.com/fhir/extn/sda3/lib/vaccination-from-time
... extension[vaccination-ordered-by]	0..1	Reference(Practitioner)	Ordered By URL: http://intersystems.com/fhir/extn/sda3/lib/vaccination-ordered-by
... extension[vaccination-priority]	0..1	CodeableConcept	Priority URL: http://intersystems.com/fhir/extn/sda3/lib/vaccination-priority
... extension[vaccination-verified-by]	0..1	Reference(Practitioner)	Verified By URL: http://intersystems.com/fhir/extn/sda3/lib/vaccination-verified-by
... status	1..1	Code	completed entered-in-error
... statusReason	0..1	CodeableConcept	Reason not done
... vaccineCode	1..1	CodeableConcept	Vaccine product administered
... patient	1..1	Reference(Patient)	Who was immunized
... encounter	0..1	Reference(Encounter)	Encounter administered as part of
... occurrence[x]	0..1		
.... occurrenceDateTime	0..1	dateTime	Vaccination administration date
.... occurrenceString		String	
... recorded	0..1	Date	When the immunization was first captured in the subject's record



... primarySource	1..1	boolean	Indicates context the data was recorded in
... reportOrigin	0..1	CodeableConcept	Indicates the source of a secondarily reported record
... location	0..1	Reference(Location)	Where vaccination occurred
... manufacturer	0..1	Reference(Organization)	
... lotNumber	0..1	String	
... expirationDate	0..1	Date	
... site	0..1	CodeableConcept	
... route	0..1	CodeableConcept	How vaccine entered body
... doseQuantity	0..1	SimpleQuantity	Amount of vaccine administered
... performer	0..*	BackboneElement	Who performed event
.... function	0..1	CodeableConcept	What type of performance was done
.... actor	1..1	Reference(Practitioner)	
... note	0..*	Annotation	Vaccination notes
... reasonCode	0..*	CodeableConcept	Why immunization occurred
... reasonReference	0..*	Reference(Condition Observation DiagnosticReport)	Why immunization occurred

Table 7: Immunization Resource

4.6.2 References

- Encounter
- Organisation
- Patient
- Practitioner

4.6.3 Value Sets

Path	Definition	Reference
Immunization.status	A set of codes indicating the current status of an Immunization.	ImmunizationStatusCodes



Immunization.statusReason	The reason why a vaccine was not administered.	ImmunizationStatusReasonCodes
Immunization.vaccineCode	The code for vaccine product administered.	VaccineAdministeredValueSet
Immunization.site	The site at which the vaccine was administered.	CodesForImmunizationSiteOfAdministration
Immunization.route	The route by which the vaccine was administered.	ImmunizationRouteCodes
Immunization.performer.function	The role a practitioner or organization plays in the immunization event.	ImmunizationFunctionCodes
Immunization.reasonCode	The reason why a vaccine was administered.	ImmunizationReasonCodes

Table 8: Immunization Terminology Bindings

4.6.4 Get Immunizations

If Riayati Patient EMPI ID is known then all the Immunizations can be retrieved using the below end point.

```
GET [base]/Patient/<EMPI ID>/Immunization
```

If Riayati Patient EMPI ID is not known then the Immunizations can be retrieved using the below end point.

```
GET [base]/Immunization?<query>
```

The <query> represents a series of encoded name-value pairs representing the filter for the query as well as control parameters to modify the response format, or pagination.

All query parameter listed below values shall be appropriately encoded per RFC3986 “percent” encoding rules. Note that percent encoding does restrict the character set to a subset of ASCII characters which is used for encoding all other characters used in the URL.



“patient.identifier”: urn:oid:2.16.840.1.113883.3.7326|<EID>.

“patient.birthdate”: <date of birth>

“patient.gender”: <gender>

Example: patient.identifier=urn:oid:2.16.840.1.113883.3.7326|784197710305080&patient.birthdate=1977-01-08&patient.gender=male

4.7 Medication Statement

4.7.1 FHIR Mapping

MedicationStatement

Name	Card.	Type	Description & Constraints
.. MedicationStatement		DomainResource	Record of medication being taken by a patient. Elements defined in Ancestors: id, meta, implicitRules, language, text, contained, extension, modifierExtension
... identifier	0..*	Identifier	Filler ID and Placer ID
... context	0..1	Reference(Encounter)	Encounter associated with MedicationStatement
... dosage	0..*	Dosage	Details of how medication is/was taken or should be taken
... extension[medication-confidentiality-code]	0..1	CodeableConcept	Confidentiality Code URL: http://intersystems.com/fhir/extn/sda3/lib/medication-confidentiality-code
... extension[medication-drug-product]	0..1	Reference(Medication)	Drug Product URL: http://intersystems.com/fhir/extn/sda3/lib/medication-drug-product
... extension[medication-duration]	0..1	CodeableConcept	Duration URL: http://intersystems.com/fhir/extn/sda3/lib/medication-duration
... extension[medication-entered-at]	0..1	Reference(Organization)	Entered At URL: http://intersystems.com/fhir/extn/sda3/lib/medication-entered-at
... extension[medication-entered-by]	0..1	Reference(Practitioner)	Entered By URL: http://intersystems.com/fhir/extn/sda3/lib/medication-entered-by
... extension[medication-entered-on]	0..1	dateTime	Entered On URL: http://intersystems.com/fhir/extn/sda3/lib/medication-entered-on
... extension[medication-entering-organization]	0..1	Reference(Organization)	Entering Organization URL: http://intersystems.com/fhir/extn/sda3/lib/medication-entering-organization



... extension[medication-from-time]	0..1	dateTime	From Time URL: http://intersystems.com/fhir/extn/sda3/lib/medication-from-time
... extension[medication-ordered-by]	0..1	Reference(Practitioner)	Ordered By URL: http://intersystems.com/fhir/extn/sda3/lib/medication-ordered-by
... extension[medication-order-quantity]	0..1	String	Dose Quantity URL: http://intersystems.com/fhir/extn/sda3/lib/medication-order-quantity
... extension[medication-priority]	0..1	CodeableConcept	Priority URL: http://intersystems.com/fhir/extn/sda3/lib/medication-priority
... extension[medication-route]	0..1	CodeableConcept	Route URL: http://intersystems.com/fhir/extn/sda3/lib/medication-route
... extension[medication-to-time]	0..1	dateTime	To Time URL: http://intersystems.com/fhir/extn/sda3/lib/medication-to-time
... medicationReference	1..1	Reference(Medication)	What medication was taken
... status	1..1	Code	completed entered-in-error
... subject	1..1	Reference(Patient)	Who was taking medication

Table 9: MedicationStatement Resource

Medication

Name	Card.	Type	Description & Constraints
.. Medication		DomainResource	Definition of a Medication Elements defined in Ancestors: id, meta, implicitRules, language, text, contained, extension, modifierExtension
... identifier	0..*	Identifier	An identifier for the medication
... code	0..1	CodeableConcept	Codes that identify this medication
... form	0..1	CodeableConcept	Form of the medication

Table 10: Medication Resource

4.7.2 References

- Encounter
- Medication
- Organisation
- Patient
- Practitioner

4.7.3 Value Sets

Path	Definition	Reference
MedicationStatement.status	A set of codes indicating the current status of the medication.	MeicationStatusCodes

Table 10: MedicationStatement Terminology Bindings

4.7.4 Get MedicationStatement

If Riayati Patient EMPI ID is known then all the MedicationStatements can be retrieved using the below end point.

```
GET [base]/Patient/<EMPI ID>/MedicationStatement
```

If Riayati Patient EMPI ID is not known then the MedicationStatements can be retrieved using the below end point.

```
GET [base]/MedicationStatement?<query>
```

The <query> represents a series of encoded name-value pairs representing the filter for the query as well as control parameters to modify the response format, or pagination.

All query parameter listed below values shall be appropriately encoded per RFC3986 “percent” encoding rules. Note that percent encoding does restrict the character set to a subset of ASCII characters which is used for encoding all other characters used in the URL.

“patient.identifier”: urn:oid:2.16.840.1.113883.3.7326|<EID>.

“patient.birthdate”: <date of birth>

“patient.gender”: <gender>

Example: patient.identifier=urn:oid:2.16.840.1.113883.3.7326|784197710305080&patient.birthdate=1977-01-08&patient.gender=male

4.7.5 Get Medication

The Medication Reference from the MedicationStatement response can be used to query the Medication by identifier.

```
GET [base]/Medication/<identifier>
```