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Comment:

* 3.1.0 Version cited in 21 st Centuries Cures Act <https://www.federalre>

FHIR R4:

<http://hl7.org/fhir/R4/downloads.html>

[Link to Change Log](#)

CDC NHSN dQM IG Profile - Daily	RPS
Respiratory Pathogen Surveillance Event L	MS
Respiratory Pathogen Surveillance Event R	R
Respiratory Pathogen Surveillance Event L	MS
Respiratory Pathogen Surveillance Event L	R
Respiratory Pathogen Surveillance Event M	MS
Respiratory Pathogen Surveillance Event M	MS
Respiratory Pathogen Surveillance Event R	MS
in progress	MS
Cross-Measure Patient Profile	R
Respiratory Pathogen Surveillance Event P	MS
Respiratory Pathogen Surveillance Event S	MS
Respiratory Pathogen Surveillance Event S	MS

gister.gov/documents/2020/05/01/2020-07419/21st-century-cures-act-interoperability-inform

nation-blocking-and-the-onc-health-it-certification

Details

FHIR Master Data Dictionary

Version of Document:

1.00

Date of Document

2/9/2024

Draft Purpose

This FHIR Master Data Dictionary docur

Authors

dQM Leads, Protocol Leads

Scope

All daily NHSN measures

Abbreviation

Name

MS

Must Support

R

Required

NR

Not Required

NRT

Not Required by Technical Team

AI

Action Item

CQL

Clinical Quality Language

Key for use of colors, fonts, and tabs

Red Font

Cardinality differs from FHIR R4 or US C

Bold Font

In the FHIR Resource tabs, it indicates t

Teal Tab

FHIR R4 v.4.0.1 Profiles

Maroon Tab

US Core v.3.1.1 Profiles

NHSN Technical Guidance

Mark all {Resource}.dataElement.identifiers as NRT.

Mark all {Resource}.contained as NRT.

Mark all {Resource}.meta as NRT.

Mark all {Resource}.text as NRT.

nents the NHSN specific measure requirements to inform the development of t

Details

If available, it will be queried by NHSNLink for measure calculation or risk adjustment.

Required to be queried by NHSNLink for the NHSN Application to determine initial population.

Queried by NHSNLink but not required to calculate the measures.

Queried by NHSNLink but determined by the technical team as not needed.

In the change log tab, the dQM leads will indicate if an update requires an action item.

CQL is machine-readable and structured on the FHIR data model.

The NHSN dQM CQL defines the following items:

- The initial population eligible for the measure
- Line-level data required to calculate measure metrics
- Additional line-level data for stratification, risk adjustment, social determinants of health, and patient matching

Core standards or conformance is more constrained against FHIR R4 or US Core the parent data elements.

he CDC NHSN dQM IG for daily measures.

Comments

Must be designated as MS or R if wanted in the Silver table.

Must be designated as MS or R if wanted in the Silver table.

Elements designated as NR will go into the Bronze table but will not progress to Silver.

NRT elements will not be copied to Bronze and will only exist in the bundle itself, which are archived by NHSN.

If an AI is identified, a Jira ticket is typically assigned to a responsible party.

FHIR bundle validation will occur against the CDC NHSN dQM IG, version 3.1.1 of US Core Profiles, and version 4.0.1 of FHIR R4.

profiles.

Date of Request	Measure Name	Data Element
4/18/2023	All Measures	{Resource}.language
4/18/2023	All Measures	{Resource}.implicitRules
4/18/2023	All Measures	{Resource}.Identifier.period
4/18/2023	All Measures	{Resource}.Identifier.assigner
4/18/2023	All Measures	Encounter.EpisodeOfCare
4/18/2023	All Measures	Encounter.BasedOn
4/18/2023	All Measures	Encounter.serviceProvider
4/18/2023	All Measures	Encounter.appointment
4/18/2023	All Measures	Condition.recorder
4/18/2023	All Measures	Condition.asserter
4/18/2023	All Measures	Coverage.type
4/18/2023	All Measures	Coverage.dependent
4/18/2023	All Measures	Coverage.costToBeneficiary
4/18/2023	All Measures	Observation.category.extension
4/18/2023	All Measures	Medication.ingredient.isActive
4/18/2023	All Measures	MedicationRequest.statusReason
4/18/2023	All Measures	MedicationRequest.supportingInformation
4/18/2023	All Measures	MedicationRequest.performer
4/18/2023	All Measures	MedicationRequest.performerType
4/18/2023	All Measures	MedicationRequest.instantiatesCanonical
4/18/2023	All Measures	MedicationRequest.instantiatesUri
4/18/2023	All Measures	MedicationRequest.basedOn
4/18/2023	All Measures	MedicationRequest.groupIdentifier
4/18/2023	All Measures	MedicationRequest.insurance
4/18/2023	All Measures	MedicationRequest.note
4/18/2023	All Measures	MedicationRequest.dosageInstruction.sequence
4/18/2023	All Measures	MedicationRequest.dosageInstruction.additionalInstruction
4/18/2023	All Measures	MedicationRequest.dosageInstruction.site
4/18/2023	All Measures	MedicationRequest.dosageInstruction.maxDosePerPeriod
4/18/2023	All Measures	MedicationRequest.dosageInstruction.maxDosePerAdministration
4/18/2023	All Measures	MedicationRequest.dosageInstruction.maxDosePerLifetime

4/18/2023	All Measures	MedicationRequest.substitution
4/18/2023	All Measures	MedicationRequest.dispenseRequest
4/18/2023	All Measures	MedicationRequest.priorPrescription
4/18/2023	All Measures	MedicationRequest.detectedIssue
4/18/2023	All Measures	MedicationRequest.eventHistory
5/2/2023	All measures	MedicationRequest.requester
5/8/2023	HT-CDI/HOB and RPS	MedicationRequest.reasonReference
5/8/2023	HT-CDI/HOB and RPS	MedicationRequest.instantiatesCanonical
5/8/2023	HT-CDI/HOB and RPS	MedicationRequest.instantiatesUri
5/15/2023	All measures	Medication.ingredient.itemCodeableConcept
		Medication.ingredient.itemReference
5/15/2023	All measures	NA
5/15/2023	All measures	Condition.onset.onsetDateTime
		Condition.onset.onsetAge
		Condition.onset.Period
		Condition.onset.Range
		Condition.onset.String

5/15/2023	All measures	Condition.abatement.onsetDateTime Condition.abatement.onsetAge Condition.abatement.Period Condition.abatement.Range Condition.abatement.String
5/16/2023	All measures	DiagnosticReport.effective.effectiveDate Time DiagnosticReport.effective.Period
5/22/2023	All measures	Observation.category
6/21/2023	All measures	Location resource designation in TOC
6/28/2023	All Measures	Medication.code
7/5/2023	All Measures	TOC, dQM Measure Lead/Back-up Clinical Analyst Row
7/10/2023	All measures	Specimen.subject
7/10/2023	All measures	Specimen.collection
7/10/2023	All measures	Specimen.collection.id
7/10/2023	All measures	Specimen.collection.extension
7/10/2023	All measures	Specimen.collection.modifierExtension
7/31/2023	All measures	MedicationAdministration.context
7/31/2023	All measures	MedicationAdministration.request
7/31/2023	All measures	Condition.clinicalStatus
7/31/2023	All measures	Condition.verificationStatus
8/1/2023	All measures	Patient.contact.modifierExtension
8/1/2023	All measures	Patient.communication.modifierExtension
8/1/2023	All measures	Patient.identifier.period
8/1/2023	All measures	Specimen.processing.modifierExtension
8/1/2023	All measures	Specimen.container.modifierExtension
8/1/2023	All measures	Specimen.container.identifier
8/1/2023	All measures	Specimen.text
8/1/2023	All measures	Specimen.contained
8/1/2023	All measures	Specimen.extension
8/1/2023	All measures	Specimen.processing.id
8/1/2023	All measures	Specimen.processing.extension
8/1/2023	All measures	Specimen.container.id

8/1/2023	All measures	Specimen.container.extension
8/1/2023	N/A	N/A
8/1/2023	All measures	Specimen.meta
8/1/2023	All measures	Specimen.modifierExtension
8/1/2023	All measures	Specimen.collection.id
8/1/2023	All measures	Specimen.collection.extension
8/1/2023	All measures	Specimen.collection.modifierExtension
8/1/2023	All measures	(Abbreviation Tab)
8/1/2023	All measures	Condition.meta
8/1/2023	All measures	Condition.text
8/1/2023	All measures	Condition.contained
8/1/2023	All measures	Condition.extension
8/1/2023	All measures	Condition.modifierExtension
8/1/2023	All measures	Condition.identifier
8/1/2023	All measures	Condition.stage.id
8/1/2023	All measures	Condition.stage.extension
8/1/2023	All measures	Condition.stage.modifierExtension
8/1/2023	All measures	Condition.evidence.id
8/1/2023	All measures	Condition.evidence.extension
8/1/2023	All measures	Condition.evidence.modifierExtension
8/1/2023	All measures	Coverage.meta
8/1/2023	All measures	Coverage.text
8/1/2023	All measures	Coverage.contained
8/1/2023	All measures	Coverage.extension
8/1/2023	All measures	Coverage.modifierExtension
8/1/2023	All measures	Coverage.identifier
8/1/2023	All measures	Coverage.class.id
8/1/2023	All measures	Coverage.class.extension
8/1/2023	All measures	Coverage.class.modifierExtension
8/1/2023	All measures	DiagnosticReport.meta
8/1/2023	All measures	DiagnosticReport.implicitRules
8/1/2023	All measures	DiagnosticReport.language
8/1/2023	All measures	DiagnosticReport.contained
8/1/2023	All measures	DiagnosticReport.extension
8/1/2023	All measures	DiagnosticReport.modifierExtension
8/1/2023	All measures	DiagnosticReport.identifier
8/1/2023	All measures	DiagnosticReport.category:LaboratorySi ice.id
8/1/2023	All measures	DiagnosticReport.category:LaboratorySi ice.id.extension

8/1/2023	All measures	DiagnosticReport.category:LaboratorySi lice.coding.id
8/1/2023	All measures	DiagnosticReport.media.id
8/1/2023	All measures	DiagnosticReport.media.extension
8/1/2023	All measures	DiagnosticReport.media.modifierExtens ion
8/1/2023	All measures	DocumentReference.meta
8/1/2023	All measures	DocumentReference.text
8/1/2023	All measures	DocumentReference.contained
8/1/2023	All measures	DocumentReference.extension
8/1/2023	All measures	DocumentReference.modifierExtension
8/1/2023	All measures	DocumentReference.masterIdentifier
8/1/2023	All measures	DocumentReference.identifier
8/1/2023	All measures	DocumentReference.relatesTo.id
8/1/2023	All measures	DocumentReference.relatesTo.extensio n
8/1/2023	All measures	DocumentReference.relatesTo.modifier Extension
8/1/2023	All measures	DocumentReference.content.id
8/1/2023	All measures	DocumentReference.content.extension
8/1/2023	All measures	DocumentReference.content.modifierEx tension
8/1/2023	All measures	DocumentReference.content.attachmen t.id
8/1/2023	All measures	DocumentReference.content.attachmen t.extension
8/1/2023	All measures	DocumentReference.content.attachmen t.language
8/1/2023	All measures	DocumentReference.context.id
8/1/2023	All measures	DocumentReference.context.extension
8/1/2023	All measures	DocumentReference.context.modifierEx tension
8/1/2023	All measures	Encounter.meta
8/1/2023	All measures	Encounter.text
8/1/2023	All measures	Encounter.contained
8/1/2023	All measures	Encounter.extension
8/1/2023	All measures	Encounter.modifierExtension
8/1/2023	All measures	Encounter.identifier.id
8/1/2023	All measures	Encounter.identifier.extension

8/1/2023	All measures	Encounter.statusHistory.id
8/1/2023	All measures	Encounter.statusHistory.extension
8/1/2023	All measures	Encounter.statusHistory.modifierExtension
8/1/2023	All measures	Encounter.classHistory.id
8/1/2023	All measures	Encounter.classHistory.extension
8/1/2023	All measures	Encounter.classHistory.modifierExtension
8/1/2023	All measures	Encounter.participant.id
8/1/2023	All measures	Encounter.participant.extension
8/1/2023	All measures	Encounter.participant.modifierExtension
8/1/2023	All measures	Encounter.diagnosis.id
8/1/2023	All measures	Encounter.diagnosis.extension
8/1/2023	All measures	Encounter.diagnosis.modifierExtension
8/1/2023	All measures	Encounter.diagnosis.condition
8/1/2023	All measures	Encounter.hospitalization.id
8/1/2023	All measures	Encounter.hospitalization.extension
8/1/2023	All measures	Encounter.hospitalization.modifierExtension
8/1/2023	All measures	Encounter.location.id
8/1/2023	All measures	Encounter.location.extension
8/1/2023	All measures	Encounter.location.modifierExtension
8/1/2023	All measures	Immunization.meta
8/1/2023	All measures	Immunization.implicitRules
8/1/2023	All measures	Immunization.language
8/1/2023	All measures	Immunization.text
8/1/2023	All measures	Immunization.contained
8/1/2023	All measures	Immunization.extension
8/1/2023	All measures	Immunization.modifierExtension
8/1/2023	All measures	Immunization.performer.id
8/1/2023	All measures	Immunization.performer.extension
8/1/2023	All measures	Immunization.performer.modifierExtension
8/1/2023	All measures	Immunization.education.id
8/1/2023	All measures	Immunization.education.extension
8/1/2023	All measures	Immunization.education.modifierExtension
8/1/2023	All measures	Immunization.reaction.id
8/1/2023	All measures	Immunization.reaction.extension

8/1/2023	All measures	Immunization.reaction.modifierExtension
8/1/2023	All measures	Immunization.protocolApplied.id
8/1/2023	All measures	Immunization.protocolApplied.extension
8/1/2023	All measures	Immunization.protocolApplied.modifierExtension
8/1/2023	All measures	Device.meta
8/1/2023	All measures	Device.implicitRules
8/1/2023	All measures	Device.language
8/1/2023	All measures	Device.text
8/1/2023	All measures	Device.contained
8/1/2023	All measures	Device.extension
8/1/2023	All measures	Device.modifierExtension
8/1/2023	All measures	Device.identifier
8/1/2023	All measures	Device.deviceName.id
8/1/2023	All measures	Device.deviceName.extension
8/1/2023	All measures	Device.deviceName.modifierExtension
8/1/2023	All measures	Device.specialization.id
8/1/2023	All measures	Device.specialization.extension
8/1/2023	All measures	Device.specialization.modifierExtension
8/1/2023	All measures	Device.version.id
8/1/2023	All measures	Device.version.extension
8/1/2023	All measures	Device.version.modifierExtension
8/1/2023	All measures	Device.property.id
8/1/2023	All measures	Device.property.extension
8/1/2023	All measures	Device.property.modifierExtension
8/1/2023	All measures	Observation.meta
8/1/2023	All measures	Observation.text
8/1/2023	All measures	Observation.contained
8/1/2023	All measures	Observation.extension
8/1/2023	All measures	Observation.modifierExtension
8/1/2023	All measures	Observation.identifier
8/1/2023	All measures	Observation.category.id
8/1/2023	All measures	Observation.referenceRange.id
8/1/2023	All measures	Observation.referenceRange.extension
8/1/2023	All measures	Observation.referenceRange.modifierExtension
8/1/2023	All measures	Observation.component.id

8/1/2023	All measures	Observation.component.extension
8/1/2023	All measures	Observation.component.modifierExtension
8/1/2023	All measures	Location.meta
8/1/2023	All measures	Location.text
8/1/2023	All measures	Location.contained
8/1/2023	All measures	Location.extension
8/1/2023	All measures	Location.modifierExtension
8/1/2023	All measures	Location.address.id
8/1/2023	All measures	Location.address.extension
8/1/2023	All measures	Location.position.id
8/1/2023	All measures	Location.position.extension
8/1/2023	All measures	Location.position.modifierExtension
8/1/2023	All measures	Location.hoursOfOperation.id
8/1/2023	All measures	Location.hoursOfOperation.extension
8/1/2023	All measures	Location.hoursOfOperation.modifierExtension
8/1/2023	All measures	Medication.meta
8/1/2023	All measures	Medication.text
8/1/2023	All measures	Medication.contained
8/1/2023	All measures	Medication.extension
8/1/2023	All measures	Medication.modifierExtension
8/1/2023	All measures	Medication.identifier
8/1/2023	All measures	Medication.ingredient.id
8/1/2023	All measures	Medication.ingredient.extension
8/1/2023	All measures	Medication.ingredient.modifierExtension
8/1/2023	All measures	Medication.batch.id
8/1/2023	All measures	Medication.batch.extension
8/1/2023	All measures	Medication.batch.modifierExtension
8/1/2023	All measures	MedicationAdministration.meta
8/1/2023	All measures	MedicationAdministration.text
8/1/2023	All measures	MedicationAdministration.contained
8/1/2023	All measures	MedicationAdministration.extension
8/1/2023	All measures	MedicationAdministration.modifierExtension
8/1/2023	All measures	MedicationAdministration.identifier
8/1/2023	All measures	MedicationAdministration.performer.id
8/1/2023	All measures	MedicationAdministration.performer.extension

8/1/2023	All measures	MedicationAdministration.performer.modifierExtension
8/1/2023	All measures	MedicationAdministration.dosage.modifierExtension
8/1/2023	All measures	MedicationRequest.meta
8/1/2023	All measures	MedicationRequest.text
8/1/2023	All measures	MedicationRequest.contained
8/1/2023	All measures	MedicationRequest.extension
8/1/2023	All measures	MedicationRequest.modifierExtension
8/1/2023	All measures	MedicationRequest.identifier
8/1/2023	All measures	MedicationRequest.substitution.id
8/1/2023	All measures	MedicationRequest.substitution.extension
8/1/2023	All measures	MedicationRequest.substitution.modifierExtension
8/1/2023	All measures	Observation.meta
8/1/2023	All measures	Observation.text
8/1/2023	All measures	Observation.contained
8/1/2023	All measures	Observation.extension
8/1/2023	All measures	Observation.modifierExtension
8/1/2023	All measures	Observation.identifier
8/1/2023	All measures	Observation.referenceRange.id
8/1/2023	All measures	Observation.referenceRange.extension
8/1/2023	All measures	Observation.referenceRange.modifierExtension
8/1/2023	All measures	Procedure.meta
8/1/2023	All measures	Procedure.text
8/1/2023	All measures	Procedure.contained
8/1/2023	All measures	Procedure.extension
8/1/2023	All measures	Procedure.modifierExtension
8/1/2023	All measures	Procedure.identifier
8/1/2023	All measures	Procedure.performer.id
8/1/2023	All measures	Procedure.performer.extension
8/1/2023	All measures	Procedure.performer.modifierExtension
8/1/2023	All measures	Procedure.focalDevice.id
8/1/2023	All measures	Procedure.focalDevice.extension
8/1/2023	All measures	Procedure.focalDevice.modifierExtension
8/1/2023	All measures	ServiceRequest.meta
8/1/2023	All measures	ServiceRequest.text

8/1/2023	All measures	ServiceRequest.contained
8/1/2023	All measures	ServiceRequest.extension
8/1/2023	All measures	ServiceRequest.modifierExtension
8/1/2023	All measures	ServiceRequest.identifier
8/2/2023	All measures	Patient.meta
8/2/2023	All measures	Patient.implicitRules
8/2/2023	All measures	Patient.language
8/2/2023	All measures	Patient.text
8/2/2023	All measures	Patient.contained
8/2/2023	All measures	Patient.modifierExtension
8/2/2023	All measures	Patient.telecom.id
8/2/2023	All measures	Patient.telecom.extension
8/7/2023	All measures	MedicationRequest.dosageInstruction.site
8/7/2023	RPS	Encounter.diagnosis
8/7/2023	RPS	Encounter.diagnosis.condition
8/7/2023	RPS	MedicationRequest.reasonReference
8/7/2023	RPS	Encounter.diagnosis.use
8/7/2023	RPS	Encounter.diagnosis.rank
8/7/2023	RPS	Encounter.status

8/7/2023	Cross Measure Technical Team Requirements Review column	Encounter.diagnosis.condition
8/14/2023	RPS	MedicationRequest.dosageInstruction.text
9/6/2023	All Resource Tabs, New Cross-Measure dQM Alignment, monthly column added	NA
10/2/2023	Cross-Measure dQM alignment, monthly	All data element alignment analysis
10/2/2023	Cross-Measure dQM alignment, monthly	All data element alignment analysis
10/3/2023	TOC Tab	NHSN IG - Cross Measure, Monthly Column
10/4/2023`	TOC and all Resource Tabs	Added an "ACH dQM" column with requirements
10/10/2023	TOC	Medication and Medication Request Resources in ACH dQM

10/25/2023	ACH, VTE, LOS/MEN, CDI/HOB, Hypo, RPS	Observation.component.code
11/6/2023	RPS	Medication.status
11/6/2023	RPS	Specimen.status
11/6/2023	RPS	Observation - Vital Signs Resource/Profile
11/6/2023	RPS	Encounter.status
11/7/2023	All	Patient.extension (gender identity)
11/21/2023	All applicable measures	Encounter.type
11/21/2023	All applicable measures	Encounter.diagnosis.use
11/21/2023	All applicable measures	Encounter.hospitalization.admitSource
11/21/2023	All applicable measures	Encounter.location.status
11/21/2023	All applicable measures	Device.status
11/21/2023	All applicable measures	Device.deviceName.type
11/21/2023	All applicable measures	Observation.category
11/21/2023	All applicable measures	Observation.interpretation
11/21/2023	All applicable measures	Observation.component.interpretation
12/13/2023	All	Implantable Device (US Core) Device.owner
12/13/2023	All	Implantable Device (UsCore) Device.contact
12/13/2023	All	Implantable Device (UsCore) Device.location
12/13/2023	All	Implantable Device (UsCore) Device.url
12/13/2023	All	Implantable Device (UsCore) Device.note
12/13/2023	All	Implantable Device (UsCore) Device.safety
12/13/2023	All	Implantable Device (UsCore) Device.parent

12/13/2023	All	Observation Vital Signs (R4) Observation.component.referenceRange.low
12/13/2023	All	Observation Vital Signs (R4) Observation.component.referenceRange.high
12/13/2023	All	Observation Vital Signs (R4) Observation.component.referenceRange.type
12/13/2023	All	Observation Vital Signs (R4) Observation.component.referenceRange.appliesTo
12/13/2023	All	Observation Vital Signs (R4) Observation.component.referenceRange.age
12/13/2023	All	Observation Vital Signs (R4) Observation.component.referenceRange.text
12/22/2023	RPS	Observation.code

12/22/2023

RPS

Observation.value[x]

Medication.code

HT-CDI/HOB, LOS/MEN, VTE, Observation.value[x]
RPS

Location.alias

Medication

Medication.form

Medication.amount

Medication.ingredient

1/4/2024	All measures	Observation.encounter (Lab Result Observation)
1/4/2024	ACH, HT-CDI/HOB, LOS/MEN, VTE, RPS	DiagnosticReport.specimen
1/4/2024	All measures	Location.partOf
1/4/2024	All measures	MedicationAdministration
1/4/2024	All measures	MedicationAdministration.statusReason
1/4/2024	All measures	MedicationAdministration.category
1/4/2024	All measures	MedicationAdministration.reasonCode
1/4/2024	All measures	MedicationAdministration.reasonReference
1/4/2024	All measures	MedicationRequest.dosageInstruction.method
1/4/2024	All measures	MedicationRequest.dosageInstruction.doseAndRate
1/4/2024	All measures	MedicationRequest.dosageInstruction.doseAndRate.type
1/4/2024	All measures	MedicationRequest.dosageInstruction.doseAndRate.dose[x]
1/4/2024	All measures	MedicationRequest.dosageInstruction.doseAndRate.rate[x]
1/4/2024	ACH, HT-CDI/HOB, LOS/MEN, VTE, RPS	Procedure
1/4/2024	ACH, HT-CDI/HOB, LOS/MEN, VTE, RPS	Procedure.encounter
1/4/2024	ACH, HT-CDI/HOB, LOS/MEN, VTE, RPS	Procedure.location
1/4/2024	All measures	ServiceRequest
1/4/2024	All measures	ServiceRequest.category
1/4/2024	All measures	ServiceRequest.priority
1/4/2024	All measures	ServiceRequest.doNotPerform
1/4/2024	All measures	ServiceRequest.code
1/4/2024	All measures	ServiceRequest.encounter
1/4/2024	All measures	ServiceRequest.occurrence[x]
1/4/2024	All measures	ServiceRequest.asNeeded[x]
1/4/2024	All measures	ServiceRequest.reasonReference
1/4/2024	All measures	ServiceRequest.specimen
1/4/2024	RPS	MedicationRequest.basedOn

1/19/2024	RPS	DiagnosticReport.performer
1/19/2024	RPS	DiagnosticReport.result
1/24/2024	ACH, CDI/HOB, LOS/MEN, VTE, RPS	Diagnostic Report- Lab DiagnosticReport.text
1/24/2024	ALL	Location.identifier
1/29/2024	ALL	location.managingOrg
1/29/2024	ALL	patient.managingOrganization
1/29/2024	RPS	DiagnosticReport.performer
1/30/2024	ALL	DiagnosticReport.media.link
1/30/2024	ALL	DiagnosticReport.media.comment
1/30/2024	ALL	MedicationRequest.substitution.allowed [x]
1/30/2024	ALL	MedicationRequest.substitution.reason
2/8/2024	RPS	Added Observation R4 Resource
2/9/2024	HT-CDI/HOB, LOS/MEN, RPS, VTE	DiagnosticReport.presentedForm
2/9/2024	RPS	NA
6/17/2024	RPS	MedicationRequest.requester

Changed From	Changed To
NR	NRT
NR	NRT
MS[0..1] in Encounte Resource	NRT only in Technical column
NR	NRT
MS [0..1]	NRT only in Technical column
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
MS [0..1]	NRT only in Technical column
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
MS[0..1] for Hypo and CDI/HOB	NRT only in Technical column
NR	NRT
NR	NRT
NR	NRT

NR	NRT
NR	NRT
NR	NRT
NR	NRT
NR	NRT
Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient http://hl7.org/fhir/us/core/StructureDefinition/us-core-organization http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole http://hl7.org/fhir/us/core/StructureDefinition/us-core-relatedperson Device)	Reference(US Core Practitioner Profile US Core Organization Profile US Core Patient Profile)
NR	MS [0..*]
NRT	MS [0..*]
NRT	MS [0..*]
MS [0..1]	Removed from table
NA	N/A
NR	Removed from table

[illegible]

[illegible]

[illegible]

NR	NRT
NR	NRT
NR	NRT

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[illegible]

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[illegible]

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NR	NRT
NR	NRT
NR	NRT
NR	NRT
NRT	blank
MS	NRT
NRT	NR
MS	NR
NRT	NR
NRT	NR
R [1..1]	R [1..1]
Constrain CQL to triaged in-progress finished NRT	Constrain CQL to triaged in-progress onleave finished (left blank)
MS [0..1]	NR
NA	NA
NA	NA
NA	NA
NA	NA

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

R [1..1]

R [1..1]

The following constraints are written into the CQL:

- "COVID_19 (Tests for SARS_CoV_2 Nucleic Acid)"
- "COVID_19 (Tests for SARS_CoV_2 Antigen)"
- "Influenza (Tests for influenza A or B virus Nucleic Acid)"
- "Influenza (Tests for influenza A or B virus Antigen)"
- " RSV (Tests for RSV Nucleic Acid)"
- "RSV (Tests for RSV Antigen)"

MS [0..1]

(could have a null if lab
result/status is not yet
finalized)

MS [0..1]

(could have a null if lab
result/status is not yet
finalized)

**The following value
set constraints are
written into the CQL:**

- "COVID_19 (Organism
or Substance in Lab
Results)"
- "Influenza (influenza
A or B virus in Lab
Results)"
- "RSV (Organism or
Substance in Lab
Results)"
- "LIVD SARS CoV2 Test
Result Codes"

R [1..1]

R [1..1]

**The following value
set constraints are
written into the CQL:**

- "Anakinra"
- "Baloxavir"
- "Bamlanivimab"
- "Baricitinib"
- "Bebtelovimab"
- "Casirivimab /
Imdevimab"
- "Casirivimab"
- "COVID19 RxNorm
Value Set for
Tocilizumab"
- "Etesevimab"
- "Imdevimab"
- "Molnupiravir"
- "Nirmatrelvir /
Ritonavir"
- "Oseltamivir"
- "Peramivir"
- "Remdesivir"
- "Sarilumab"
- "Sotrovimab"
- "Tofacitinib"
- "Zanamivir"

MS [0..1]

MS [0..1]

(could have a null if lab
result/status is not yet
finalized)

MS [0..*]

MS [0..*]

MS [0..*]

MS [0..*]

MS [0..1]

MS [0..1]

MS [0..1]

MS [0..1]

MS [0..*]

MS [0..*]

MS [0..1]	MS [0..1]
MS [0..*]	MS [0..*]
MS [0..1]	MS [0..1]
MS [0..*]	MS [0..*]
MS [0..*]	MS [0..*]
MS [0..*]	MS [0..*]
MS [0..*]	MS [0..*]
MS [0..1]	MS [0..1]
MS [0..*]	MS [0..*]
MS [0..1]	MS [0..1]
MS [0..1]	MS [0..1]
MS [0..1]	MS [0..1]
MS [0..*]	MS [0..*]
MS[0..1]	MS [0..1]
MS [0..1]	MS [0..1]
MS [0..*]	MS [0..*]
MS [0..*]	MS [0..*]
MS [0..1]	MS [0...1]
MS [0..1]	MS [0..1]
MS [0..1]	MS [0..1]
MS [0..1]	MS [0..1]
MS [0..1]	MS [0..1]
MS [0..1]	MS [0..1]
MS [0..*]	MS [0..*]
MS [0..*]	MS [0..*]
MS [0..*]	MS [0..*]
MS [0..*]	NRT

Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner http://hl7.org/fhir/us/core/StructureDefinition/us-core-organization http://hl7.org/fhir/us/core/StructureDefinition/us-core-careteam http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole)	Reference(US Core Practitioner Profile US Core Organization Profile)
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Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-observation-lab)	Reference(US Core Laboratory Result Observation Profile)
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NR	NRT
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NR	NRT
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MS	NR
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MS	NR
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MS [0..*]	NR
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NR	NRT
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NR	NRT
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NR	NRT
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NR	NRT
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NA	NA
----	----

NR	NRT
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NA	NA
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R[1..1]	NR
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FHIR Path	Min	Max	Must Support?	Data Type(s)
DiagnosticReport	0	*		
DiagnosticReport.id	0	1		string
DiagnosticReport.meta	0	1		Meta

DiagnosticReport.implicitRules	0	1		uri
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DiagnosticReport.language	0	1		code

DiagnosticReport.text	0	1		Narrative
DiagnosticReport.contained	0	*		Resource
DiagnosticReport.extension	0	*		Extension

DiagnosticReport.modifierExtension	0	*		Extension
DiagnosticReport.identifier	0	*		Identifier
DiagnosticReport.basedOn	0	*		Reference (CarePlan, ImmunizationRe commendation, MedicationRequ est, NutritionOrder, ServiceRequest)
DiagnosticReport.status	1	1	Y	code
DiagnosticReport.category	1	*	Y	CodeableConcep t

DiagnosticReport.category:LaboratorySlice	1	1	Y	CodeableConcept
DiagnosticReport.category:LaboratorySlice.id	0	1		string
DiagnosticReport.category:LaboratorySlice.id.extension	0	*		Extension
DiagnosticReport.category:LaboratorySlice.coding	1	*		Coding
DiagnosticReport.category:LaboratorySlice.coding.id	0	1		string
DiagnosticReport.category:LaboratorySlice.coding.system	1	1		url
DiagnosticReport.category:LaboratorySlice.coding.version	0	1		string
DiagnosticReport.category:LaboratorySlice.coding.code	0	2		code
DiagnosticReport.category:LaboratorySlice.coding.display	0	1		string
DiagnosticReport.category:LaboratorySlice.coding.userSelected	0	1		boolean
DiagnosticReport.code	1	1	Y	CodeableConcept

DiagnosticReport.subject	1	1	Y	Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient)
DiagnosticReport.encounter	0	1		Reference(Encounter)
DiagnosticReport.effective[x]	1	1	Y	dateTime Period
DiagnosticReport.issued	1	1	Y	instant

DiagnosticReport.performer	0	*	Y	Reference(US Core Practitioner Profile US Core Organization Profile)
DiagnosticReport.resultsInterpreter	0	*		Reference(Practitioner PractitionerRole Organization CareTeam)
DiagnosticReport.specimen	0	*		Reference(Specimen)
DiagnosticReport.result	0	*	Y	Reference(US Core Laboratory Result Observation Profile)
DiagnosticReport.imagingStudy	0	*		Reference(ImagingStudy)

DiagnosticReport.media	0	*		BackboneElement
DiagnosticReport.media.id	0	1		string
DiagnosticReport.media.extension	0	*		Extension

DiagnosticReport.media.modifierExtension	0	*		Extension
DiagnosticReport.media.comment	0	1		string
DiagnosticReport.media.link	1	1		Reference(Media)

DiagnosticReport.conclusion	0	1		string
DiagnosticReport.conclusionCode	0	*		CodeableConcept
DiagnosticReport.presentedForm	0	*		Attachment

FHIR Short Description	FHIR Definition
A Diagnostic report - a combination of request information, atomic results, images, interpretation, as well as formatted reports	The US Core Diagnostic Report Profile is based upon the core FHIR DiagnosticReport Resource and created to meet the 2015 Edition Common Clinical Data Set 'Laboratory test(s) and Laboratory value(s)/result(s)' requirements.
Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.
Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.

A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.
--	--

Language of the resource content	The base language in which the resource is written.
----------------------------------	---

Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.
Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored	May be used to represent additional information that is not part of the basic definition of
Business identifier for report	Identifiers assigned to this report by the performer or other
What was requested	Details concerning a service requested.
registered partial preliminary final +	The status of the diagnostic report.
Service category	A code that classifies the clinical discipline, department or diagnostic service that created the report (e.g. cardiology, biochemistry, hematology, MRI). This is used for searching, sorting and display purposes.

Service category	A code that classifies the clinical discipline, department or diagnostic service that created the report (e.g. cardiology, biochemistry, hematology, MRI). This is used for searching, sorting and display purposes.
Unique id for inter-element referencing	
Additional content defined by implementations	
Code defined by a terminology system	
Unique id for inter-element referencing	
identity of the terminology system	
Version of the system - if relevant	
Symbol in syntax defined by the system	
Representation defined by the system	
If this coding was chosen directly by the user	
US Core Laboratory Report Order Code	The test, panel or battery that was ordered.

The subject of the report - usually, but not always, the patient	The subject of the report. Usually, but not always, this is a patient. However, diagnostic services also perform analyses on specimens collected from a variety of other sources.
Health care event when test ordered	The healthcare event (e.g. a patient and healthcare provider interaction) which this DiagnosticReport is about.
Specimen Collection Datetime or Period	The time or time-period the observed values are related to. When the subject of the report is a patient, this is usually either the time of the procedure or of specimen collection(s), but very often the source of the date/time is not known, only the date/time itself.
DateTime this version was made	The date and time that this version of the report was made available to providers, typically after the report was reviewed and verified.

Responsible Diagnostic Service	The diagnostic service that is responsible for issuing the report.
Primary result interpreter	The practitioner or organization that is responsible for the report's conclusions and interpretations.
Specimens this report is based on	Details about the specimens on which this diagnostic report is based.
Observations	[Observations](http://hl7.org/fhir/R4/observation.html) that are part of this diagnostic report.
Reference to full details of imaging associated with the diagnostic report	One or more links to full details of any imaging performed during the diagnostic investigation. Typically, this is imaging performed by DICOM enabled modalities, but this is not required. A fully enabled PACS viewer can use this information to provide views of the source images.

Key images associated with this report	A list of key images associated with this report. The images are generally created during the diagnostic process, and may be directly of the patient, or of treated specimens (i.e. slides of interest).
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
Comment about the image (e.g. explanation)	A comment about the image. Typically, this is used to provide an explanation for why the image is included, or to draw the viewer's attention to important features.
Reference to the image source	Reference to the image source.

Clinical conclusion (interpretation) of test results	Concise and clinically contextualized summary conclusion (interpretation/impression) of the diagnostic report.
Codes for the clinical conclusion of test results	One or more codes that represent the summary conclusion (interpretation/impression) of the diagnostic report.
Entire report as issued	Rich text representation of the entire result as issued by the diagnostic service. Multiple formats are allowed but they SHALL be semantically equivalent.

Comments	Binding Strength	Binding Description	FHIR Binding Value Set
This is intended to capture a single report and is not suitable for use in displaying summary information that covers multiple reports. For example, this resource has not been designed for laboratory cumulative reporting formats nor detailed structured reports for sequencing.			
The only time that a resource does not have an id is when it is being submitted to the server using a create operation.			

Asserting this rule set restricts the content to be only understood by a limited set of trading partners. This inherently limits the usefulness of the data in the long term. However, the existing health eco-system is highly fractured, and not yet ready to define, collect, and exchange data in a generally computable sense. Wherever possible, implementers and/or specification writers should avoid using this element. Often, when used, the URL is a reference to an implementation guide that defines these special rules as part of it's narrative along with other profiles, value sets, etc.			
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Language is provided to support indexing and accessibility (typically, services such as text to speech use the language tag). The html language tag in the narrative applies to the narrative. The language tag on the resource may be used to specify the language of other presentations generated from the data in the resource. Not all the content has to be in the base language. The Resource.language should not be assumed to apply to the narrative automatically. If a language is specified, it should it also be specified on the div element in the html (see rules in HTML5 for information about the relationship between xml:lang and the html lang attribute).	preferred	CommonLanguages Max Binding: All Languages	http://hl7.org/fhir/ValueSet/language
---	------------------	---	--

Contained resources do not have narrative. Resources that are not contained SHOULD have a narrative. In some cases, a resource may only have text with little or no additional discrete data (as long as all minOccurs=1 elements are satisfied). This may be necessary for data from legacy systems where information is captured as a "text blob" or where text is additionally entered raw or narrated and encoded information is added later.			
This should never be done when the content can be identified properly, as once identification is lost, it is extremely difficult (and context dependent) to restore it again. Contained resources may have profiles and tags in their meta elements, but SHALL NOT have security labels.			
There can be no stigma associated with the use of extensions by any application, project, or standard - regardless of the institution or jurisdiction that uses or defines the extensions. The use of extensions is what allows the FHIR specification to retain a core level of simplicity for everyone.			

There can be no stigma associated with the use of extensions by any			
Usually assigned by the Information System of the			
Note: Usually there is one test request for each result, however in some circumstances multiple test requests may be represented using a single test result resource. Note that there are also cases where one request leads to multiple reports.			
	required		http://hl7.org/fhir/R4/
Multiple categories are allowed using various categorization schemes. The level of granularity is defined by the category concepts in the value set. More fine-grained filtering can be performed using the metadata and/or terminology hierarchy in DiagnosticReport.code.	example	Codes for diagnostic service sections.	http://hl7.org/fhir/R4/

Multiple categories are allowed using various categorization schemes. The level of granularity is defined by the category concepts in the value set. More fine-grained filtering can be performed using the metadata and/or terminology hierarchy in DiagnosticReport.code.	example	Required Pattern: At least the following	
	Complex	Fixed Value: (complex)	
	Fixed Value	diagnostiServiceSectionID	https://terminology.hl7.org/5.2.0/CodeSystem-v2-0074.html
	Fixed Value		
UsageNote= The typical patterns for codes are: 1) a LOINC code either as a translation from a "local" code or as a primary code, or 2) a local code only if no suitable LOINC exists, or 3) both the local and the LOINC translation. Systems SHALL be capable of sending the local code if one exists.	extensible	US Core Diagnostic Report Laboratory Codes (LOINC codes)	https://www.hl7.org/fh

This will typically be the encounter the event occurred within, but some events may be initiated prior to or after the official completion of an encounter but still be tied to the context of the encounter (e.g. pre-admission laboratory tests).			
If the diagnostic procedure was performed on the patient, this is the time it was performed. If there are specimens, the diagnostically relevant time can be derived from the specimen collection times, but the specimen information is not always available, and the exact relationship between the specimens and the diagnostically relevant time is not always automatic.			
May be different from the update time of the resource itself, because that is the status of the record (potentially a secondary copy), not the actual release time of the report.			

This is not necessarily the source of the atomic data items or the entity that interpreted the results. It is the entity that takes responsibility for the clinical report.			
Might not be the same entity that takes responsibility for the clinical report.			
If the specimen is sufficiently specified with a code in the test result name, then this additional data may be redundant. If there are multiple specimens, these may be represented per observation or group.			
Observations can contain observations.			
ImagingStudy and the image element are somewhat overlapping - typically, the list of image references in the image element will also be found in one of the imaging study resources. However, each caters to different types of displays for different types of purposes. Neither, either, or both may be provided.			

There can be no stigma associated with the use of extensions by any application, project, or standard - regardless of the institution or jurisdiction that uses or defines the extensions. The use of extensions is what allows the FHIR specification to retain a core level of simplicity for everyone.			

There can be no stigma associated with the use of extensions by any application, project, or standard - regardless of the institution or jurisdiction that uses or defines the extensions. The use of extensions is what allows the FHIR specification to retain a core level of simplicity for everyone.			
The comment should be displayed with the image. It would be common for the report to include additional discussion of the image contents in other sections such as the conclusion.			

	example	SNOMEDCTClinicalFindings	http://hl7.org/fhir/ValueSets
"application/pdf" is recommended as the most reliable and interoperable in this context.			

RPS
MS [0..*]
R[1..1]
NRT

NRT

NRT

NRT

NRT

NRT

NRT
NRT
NR
R [1..1] The following constraints are written into the CQL: 'final','registered','preliminary','partial'
R [1..*]

R [1..1]
MS [0..1]
R [1..1]
R [1..1]

NR
NR
MS [0..*]
MS [0..*]
NR

NRT
NRT
NRT

NRT

NRT

NRT

MS [0..1]
MS [0..*]
NRT

[Back to TOC](#)

FHIR Path	Min	Max	Must Support?	Data Type(s)
Encounter	0	*		Encounter
Encounter.id	0	1		string
Encounter.meta	0	1		Meta
Encounter.implicitRules	0	1		uri
Encounter.language	0	1		code
Encounter.text	0	1		Narrative

Encounter.contained	0	*		Resource
Encounter.extension	0	*		Extension
Encounter.modifierExtension	0	*		Extension
Encounter.identifier	0	*	Y	Identifier

Encounter.identifier.id	0	1		string
Encounter.identifier.extension	0	*		Extension
Encounter.identifier.use	0	1		code
Encounter.identifier.type	0	1		CodeableCo ncept
Encounter.identifier.system	1	1	Y	uri
Encounter.identifier.value	1	1	Y	string

Encounter.identifier.period	0	1		Period
Encounter.identifier.assigner	0	1		Reference(O rganization)
Encounter.status	1	1	Y	code
Encounter.statusHistory	0	*		BackboneEl ement
Encounter.statusHistory.id	0	1		string

Encounter.statusHistory.extension	0	*		Extension
Encounter.statusHistory.modifierExtension	0	*		Extension
Encounter.statusHistory.status	1	1		code
Encounter.statusHistory.period	1	1		Period

Encounter.class	1	1	Y	Coding
Encounter.classHistory	0	*		BackboneElement
Encounter.classHistory.id	0	1		string
Encounter.classHistory.extension	0	*		Extension

Encounter.classHistory.modifierExtension	0	*		Extension
Encounter.classHistory.class	1	1		Coding
Encounter.classHistory.period	1	1		Period

Encounter.type	1	*	Y	CodeableConcept
Encounter.serviceType	0	1		CodeableConcept
Encounter.priority	0	1		CodeableConcept
Encounter.subject	1	1	Y	Reference(US Core Patient Profile)
Encounter.episodeOfCare	0	*		Reference(EpisodeOfCare)

Encounter.basedOn	0	*		Reference(ServiceRequest)
Encounter.participant	0	*	Y	BackboneElement
Encounter.participant.id	0	1		string
Encounter.participant.extension	0	*		Extension

Encounter.participant.modifierExtension	0	*		Extension
Encounter.participant.type	0	*	Y	CodeableConcept
Encounter.participant.period	0	1	Y	Period

Encounter.participant.individual	0	1	Y	Reference(U S Core Practitioner Profile)
Encounter.appointment	0	*		Reference(A ppointment)
Encounter.period	0	1	Y	Period
Encounter.length	0	1		Duration
Encounter.reasonCode	0	*	Y	CodeableCo ncept

Encounter.reasonReference	0	*	Y	Reference(C ondition Procedure Observation Immunizati onRecomm endation)
Encounter.diagnosis	0	*		BackboneEl ement
Encounter.diagnosis.id	0	1		string
Encounter.diagnosis.extension	0	*		Extension

Encounter.diagnosis.modifierExtension	0	*		Extension
Encounter.diagnosis.condition	1	1		Reference(Condition Procedure)
Encounter.diagnosis.use	0	1		CodeableConcept
Encounter.diagnosis.rank	0	1		positiveInt

Encounter.account	0	*		Reference(A ccount)
Encounter.hospitalization	0	1	Y	BackboneEl ement
Encounter.hospitalization.id	0	1		string
Encounter.hospitalization.extension	0	*		Extension

Encounter.hospitalization.modifierExtension	0	*		Extension
Encounter.hospitalization.preAdmissionIdentifier	0	1		Identifier
Encounter.hospitalization.origin	0	1		Reference(Location Organization)
Encounter.hospitalization.admitSource	0	1		CodeableConcept

Encounter.hospitalization.reAdmission	0	1		CodeableConcept
Encounter.hospitalization.dietPreference	0	*		CodeableConcept
Encounter.hospitalization.specialCourtesy	0	*		CodeableConcept
Encounter.hospitalization.specialArrangement	0	*		CodeableConcept
Encounter.hospitalization.destination	0	1		Reference(Location Organization)
Encounter.hospitalization.dischargeDisposition	0	1	Y	CodeableConcept

Encounter.location	0	*	Y	BackboneElement
Encounter.location.id	0	1		string
Encounter.location.extension	0	*		Extension

Encounter.location.modifierExtension	0	*		Extension
Encounter.location.location	1	1	Y	Reference(Location)
Encounter.location.status	0	1		code
Encounter.location.physicalType	0	1		CodeableConcept

Encounter.location.period	0	1		Period
Encounter.serviceProvider	0	1	Y	Reference(O rganization)
Encounter.partOf	0	1		Reference(E ncounter)

FHIR Short Description	FHIR Definition	Binding Strength
An interaction during which services are provided to the patient	This is basic constraint on Encounter for use in US Core resources.	
Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.	
Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.	
A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.	
Language of the resource content	The base language in which the resource is written.	Preferred Max Binding
Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.	

Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.	
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	
Extensions that cannot be ignored	May be used to represent additional information that is not part of the basic definition of the resource and that modifies the understanding of the element that contains it and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer is allowed to define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).	
Identifier(s) by which this	Identifier(s) by which this encounter is known.	

Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	
usual official temp secondary old (If known)	The purpose of this identifier.	required
Description of identifier	A coded type for the identifier that can be used to determine which identifier to use for a specific purpose.	extensible
The namespace for the identifier value	Establishes the namespace for the value - that is, a URL that describes a set values that are unique.	
The value that is unique	The portion of the identifier typically relevant to the user and which is unique within the context of the system.	

Time period when id is/was valid for use	Time period during which identifier is/was valid for use.	
Organization that issued id (may be just text)	Organization that issued/manages the identifier.	
planned arrived triaged in-progress onleave finished cancelled +	planned arrived triaged in-progress onleave finished cancelled +.	required
List of past encounter statuses	The status history permits the encounter resource to contain the status history without needing to read through the historical versions of the resource, or even have the server store them.	
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	

Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	
Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	
planned arrived triaged in-progress onleave finished cancelled +	planned arrived triaged in-progress onleave finished cancelled +.	required
The time that the episode was in the specified status	The time that the episode was in the specified status.	

Classification of patient encounter	Concepts representing classification of patient encounter such as ambulatory (outpatient), inpatient, emergency, home health or others due to local variations.	extensible
List of past encounter classes	The class history permits the tracking of the encounters transitions without needing to go through the resource history. This would be used for a case where an admission starts of as an emergency encounter, then transitions into an inpatient scenario. Doing this and not restarting a new encounter ensures that any lab/diagnostic results can more easily follow the patient and not require re-processing and not get lost or cancelled during a kind of discharge from emergency to inpatient.	
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	

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inpatient outpatient ambulatory emergency +	inpatient outpatient ambulatory emergency +.	extensible
The time that the episode was in the specified class	The time that the episode was in the specified class.	

Specific type of encounter	Specific type of encounter (e.g. e-mail consultation, surgical day-care, skilled nursing, rehabilitation).	extensible
Specific type of service	Broad categorization of the service that is to be provided (e.g. cardiology).	example
Indicates the urgency of the encounter	Indicates the urgency of the encounter.	example
The patient or group present at the encounter	The patient or group present at the encounter.	
Episode(s) of care that this encounter should be recorded against	Where a specific encounter should be classified as a part of a specific episode(s) of care this field should be used. This association can facilitate grouping of related encounters together for a specific purpose, such as government reporting, issue tracking, association via a common problem. The association is recorded on the encounter as these are typically created after the episode of care and grouped on entry rather than editing the episode of care to append another encounter to it (the episode of care could span years).	

The ServiceRequest that initiated this encounter	The request this encounter satisfies (e.g. incoming referral or procedure request).	
List of participants involved in the encounter	The list of people responsible for providing the service.	
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	

Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).	
Role of participant in encounter	Role of participant in encounter.	extensible
Period of time during the encounter that the participant participated	The period of time that the specified participant participated in the encounter. These can overlap or be subsets of the overall encounter's period.	

Persons involved in the encounter other than the patient	Persons involved in the encounter other than the patient.	
The appointment that scheduled this encounter	The appointment that scheduled this encounter.	
The start and end time of the encounter	The start and end time of the encounter.	
Quantity of time the encounter lasted (less time absent)	Quantity of time the encounter lasted. This excludes the time during leaves of absence.	
Coded reason the encounter takes place	Reason the encounter takes place, expressed as a code. For admissions, this can be used for a coded admission diagnosis.	preferred

Reason the encounter takes place (reference)	Reason the encounter takes place, expressed as a code. For admissions, this can be used for a coded admission diagnosis.	
The list of diagnosis relevant to this encounter	The list of diagnosis relevant to this encounter.	
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	

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The diagnosis or procedure relevant to the encounter	Reason the encounter takes place, as specified using information from another resource. For admissions, this is the admission diagnosis. The indication will typically be a Condition (with other resources referenced in the evidence.detail), or a Procedure.	
Role that this diagnosis has within the encounter (e.g. admission, billing, discharge ...)	Role that this diagnosis has within the encounter (e.g. admission, billing, discharge ...).	preferred
Ranking of the diagnosis (for each role type)	Ranking of the diagnosis (for each role type).	

The set of accounts that may be used for billing for this Encounter	The set of accounts that may be used for billing for this Encounter.	
Details about the admission to a healthcare service	Details about the admission to a healthcare service.	
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	

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Pre-admission identifier	Pre-admission identifier.	
The location/organization from which the patient came before admission	The location/organization from which the patient came before admission.	
From where patient was admitted (physician referral, transfer)	From where patient was admitted (physician referral, transfer).	preferred

The type of hospital re-admission that has occurred (if any). If the value is absent, then this is not identified as a readmission	Whether this hospitalization is a readmission and why if known.	example
Diet preferences reported by the patient	Diet preferences reported by the patient.	example
Special courtesies (VIP, board member)	Special courtesies (VIP, board member).	preferred
Wheelchair, translator, stretcher, etc.	Any special requests that have been made for this hospitalization encounter, such as the provision of specific equipment or other things.	preferred
Location/organization to which the patient is discharged	Location/organization to which the patient is discharged.	
Category or kind of location after discharge	Category or kind of location after discharge.	example

List of locations where the patient has been	List of locations where the patient has been during this encounter.	
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	

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Location the encounter takes place	The location where the encounter takes place.	
planned active reserved completed	The status of the participants' presence at the specified location during the period specified. If the participant is no longer at the location, then the period will have an end date/time.	required
The physical type of the location (usually the level in the location hierachy - bed room ward etc.)	This will be used to specify the required levels (bed/ward/room/etc.) desired to be recorded to simplify either messaging or query.	example

Time period during which the patient was present at the location	Time period during which the patient was present at the location.	
The organization (facility) responsible for this encounter	The organization that is primarily responsible for this Encounter's services. This MAY be the same as the organization on the Patient record,	
Another Encounter this encounter is part of	Another Encounter of which this encounter is a part of (administratively or in time).	

Binding Description	FHIR Binding Value Set	RPS
		R [1..*]
		R [1..1]
		NRT
		NRT
CommonLanguages AllLanguages	http://hl7.org/fhir/ValueSet	NRT
		NRT

		NRT
		NRT
		NRT
		R [1..*]

		NRT
		NRT
IdentifierUse	http://hl7.org/fhir/ValueSet	MS [0..1]
IdentifierType	http://hl7.org/fhir/ValueSet	MS [0..1]
		R[1..1]
		R [1..1]

		MS [0..1]
		NRT
EncounterStatus	https://hl7.org/fhir/R4/	R [1..1] The following constraints are written into the CQL: 'in-progress', 'finished', 'triaged', 'onleave', 'entered-in-error'
		NR
		NRT

		NRT
		NRT
EncounterStatus	http://hl7.org/fhir/ValueSet	R [1..1]
		R [1..1]

ActEncounterCode	http://hl7.org/fhir/R4/	R [1..1] The following constraints are written into the CQL: 'inpatient acute', 'inpatient encounter', 'observation encounter', 'inpatient non-acute', 'short stay'
		MS [0..*]
		NRT
		NRT

		NRT
ActEncounterCode	http://terminology.hl7.org	R [1..1]
		R [1..1]

USCoreEncounterType	https://hl7.org/fhir/us/	R [1..*] The following constraints are written into the CQL: "Observation Services": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1111.143' "Encounter Inpatient": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.666.5.307'
ServiceType	http://hl7.org/fhir/ValueSet/	NR
ActPriority	http://terminology.hl7.org/ValueSet/	NR
		R [1..1]
		NRT

		NRT
		NR
		NRT
		NRT

		NRT
ParticipantType	http://hl7.org/fhir/ValueSet	NR
		NR

		NR
		NRT
		R[1..1]
		NR
EncounterReasonCodes	http://hl7.org/fhir/ValueSet	MS [0..*]

		NR
		NR
		NRT
		NRT

		NRT
		NR
DiagnosisRole	https://hl7.org/fhir/R4/	NR
		NR

		NR
		MS [0..1]
		NRT
		NRT

		NRT
		NR
		NR
AdmitSource	https://hl7.org/fhir/R4/	MS [0..1]

HL7VSReAdmissionIndicator	http://terminology.hl7.org/ValueSet/vs-ReAdmissionIndicator	MS [0..1]
Diet	http://hl7.org/fhir/ValueSet/diet	NR
SpecialCourtesy	http://hl7.org/fhir/ValueSet/special-courtesy	NR
SpecialArrangements	http://hl7.org/fhir/ValueSet/special-arrangements	NR
		NR
DischargeDisposition	http://hl7.org/fhir/R4/ValueSet/discharge-disposition	MS [0..1] CQL is constrained to codes within the HL7 "Discharge Disposition" value set.

		R [1..*] The following constraints are written into the CQL: Inpatient, Emergency, and Observation Locations 2.16.840.1.113762.1.4.1046.265
		NRT
		NRT

		NRT
		R [1..1]
EncounterLocationStatus	http://hl7.org/fhir/ValueSet	MS [0..1]
LocationType	http://hl7.org/fhir/R4/	NR

		R [1..1]
		NRT
		NR

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FHIR Path	Min	Max	Must Support?
Observation	0	*	
Observation.id	0	1	
Observation.meta	0	1	
Observation.implicitRules	0	1	
Observation.language	0	1	
Observation.text	0	1	

Observation.contained	0	*	
Observation.extension	0	*	

Observation.modifierExtension	0	*	
Observation.identifier	0	*	
Observation.basedOn	0	*	
Observation.partOf	0	*	

Observation.status	1	1	Y
Observation.category	1	*	Y
Observation.category:Laboratory	1	1	Y
Observation.category:Laboratory.id	0	1	
Observation.category:Laboratory.extension	0	*	
Observation.category:Laboratory.coding	1	*	Y
Observation.category:Laboratory.coding.id	0	1	
Observation.category:Laboratory.coding.extension	0	*	

Observation.category:Laboratory.coding.system	1	1	Y
Observation.category:Laboratory.coding.version	0	1	
Observation.category:Laboratory.coding.code	1	1	Y
Observation.category:Laboratory.coding.display	0	1	
Observation.category:Laboratory.coding.userSelected	0	1	
Observation.category:Laboratory.text	0	1	
Observation.code	1	1	Y

Observation.subject	1	1	Y
Observation.focus	0	*	
Observation.encounter	0	1	
Observation.effective[x]	0	1	Y
Observation.issued	0	1	

Observation.performer	0	*	
Observation.value[x]	0	1	Y
Observation.dataAbsentReason	0	1	Y
Observation.interpretation	0	*	
Observation.note	0	*	
Observation.bodySite	0	1	
Observation.method	0	1	
Observation.specimen	0	1	
Observation.device	0	1	

Observation.referenceRange	0	*	
Observation.referenceRange.id	0	1	
Observation.referenceRange.extension	0	*	

Observation.referenceRange.modifierExtension	0	*	
Observation.referenceRange.low	0	1	
Observation.referenceRange.high	0	1	

Observation.referenceRange.type	0	1	
Observation.referenceRange.appliesTo	0	*	
Observation.referenceRange.age	0	1	
Observation.referenceRange.text	0	1	
Observation.hasMember	0	*	
Observation.derivedFrom	0	*	

Observation.component	0	*	
Observation.component.id	0	1	
Observation.component.extension	0	*	

Observation.component.modifierExtension	0	*	
Observation.component.code	1	1	
Observation.component.value[x]	0	1	
Observation.component.dataAbsentReason	0	1	

Observation.component.interpretation	0	*	
Observation.component.referenceRange	0	*	

Data Type(s)	FHIR Short Description	FHIR Definition
Observation	Measurements and simple assertions	This profile is created to meet the 2015 Edition Common Clinical Data Set 'Laboratory test(s) and Laboratory value(s)/result(s)' requirements.
string	Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.
Meta	Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.
uri	A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.
code	Language of the resource content	The base language in which the resource is written.
Narrative	Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.

Resource	Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.
Extension	Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extension	Extensions that cannot be ignored	May be used to represent additional information that is not part of the basic definition of the resource and that modifies the understanding of the element that contains it and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer is allowed to define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
Identifier	Business Identifier for observation	A unique identifier assigned to this observation.
Reference(CarePlan DeviceRequest ImmunizationRecommendation MedicationRequest NutritionOrder ServiceRequest)	Fulfills plan, proposal or order	A plan, proposal or order that is fulfilled in whole or in part by this event. For example, a MedicationRequest may require a patient to have laboratory test performed before it is dispensed.
Reference(MedicationAdministration MedicationDispense MedicationStatement Procedure Immunization ImagingStudy)	Part of referenced event	A larger event of which this particular Observation is a component or step. For example, an observation as part of a procedure.

code	registered preliminary final amended +	The status of the result value.
Slice Definition	Classification of type of observation Slice: Unordered, Open by pattern:\$this	A code that classifies the general type of observation being made.
CodeableConcept	Classification of type of observation	A code that classifies the general type of observation being made.
string	Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Extension	Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
Coding	Code defined by a terminology system	A reference to a code defined by a terminology system.
string	Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Extension	Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

uri	Identity of the terminology system Fixed Value: http://terminology.hl7.org/CodeSystem/observation-category	The identification of the code system that defines the meaning of the symbol in the code.
string	Version of the system - if relevant	The version of the code system which was used when choosing this code. Note that a well-maintained code system does not need the version reported, because the meaning of codes is consistent across versions. However this cannot consistently be assured, and when the meaning is not guaranteed to be consistent, the version SHOULD be exchanged.
code	Symbol in syntax defined by the system Fixed Value: laboratory	A symbol in syntax defined by the system. The symbol may be a predefined code or an expression in a syntax defined by the coding system (e.g. post-coordination).
string	Representation defined by the system	A representation of the meaning of the code in the system, following the rules of the system.
boolean	If this coding was chosen directly by the user	Indicates that this coding was chosen by a user directly - e.g. off a pick list of available items (codes or displays).
string	Plain text representation of the concept	A human language representation of the concept as seen/selected/uttered by the user who entered the data and/or which represents the intended meaning of the user.
CodeableConcept	Laboratory Test Name	The test that was performed. A LOINC **SHALL** be used if the concept is present in LOINC.

Reference(US Core Patient Profile)	Who and/or what the observation is about	The patient, or group of patients, location, or device this observation is about and into whose record the observation is placed. If the actual focus of the observation is different from the subject (or a sample of, part, or region of the subject), the `focus` element or the `code` itself specifies the actual focus of the observation.
Reference(Resource)	What the observation is about, when it is not about the subject of record	The actual focus of an observation when it is not the patient of record representing something or someone associated with the patient such as a spouse, parent, fetus, or donor. For example, fetus observations in a mother's record. The focus of an observation could also be an existing condition, an intervention, the subject's diet, another observation of the subject, or a body structure such as tumor or implanted device. An example use case would be using the Observation resource to capture whether the mother is trained to change her child's tracheostomy tube. In this example, the child is the patient of record and the mother is the focus.
Reference(Encounter)	Healthcare event during which this observation is made	The healthcare event (e.g. a patient and healthcare provider interaction) during which this observation is made.
dateTime Period	Clinically relevant time/time-period for observation us-core-1: Datetime must be at least to day.	For lab tests this is the specimen collection date. For Ask at Order Entry Questions (AOE)'s this is the date the question was asked.
instant	Date/Time this version was made available	The date and time this version of the observation was made available to providers, typically after the results have been reviewed and verified.

Reference(Practitioner PractitionerRole Organization CareTeam Patient RelatedPerson)	Who is responsible for the observation	Who was responsible for asserting the observed value as "true".
Quantity CodeableConcept string boolean integer Range Ratio SampledData time dateTime Period	Result Value	The Laboratory result value. If a coded value, the valueCodeableConcept.code **SHOULD** be selected from [SNOMED CT](http://hl7.org/fhir/ValueSet/uslab-obs-codedresults) if the concept exists. If a numeric value, valueQuantity.code **SHALL** be selected from [UCUM](http://unitsofmeasure.org). A FHIR [UCUM Codes value set](http://hl7.org/fhir/STU3/valueset-ucum-units.html) that defines all UCUM codes is in the FHIR specification.
CodeableConcept	Why the result is missing	Provides a reason why the expected value in the element Observation.value[x] is missing.
CodeableConcept	High, low, normal, etc.	A categorical assessment of an observation value. For example, high, low, normal.
Annotation	Comments about the observation	Comments about the observation or the results.
CodeableConcept	Observed body part	Indicates the site on the subject's body where the observation was made (i.e. the target site).
CodeableConcept	How it was done	Indicates the mechanism used to perform the observation.
Reference(Specimen)	Specimen used for this observation	The specimen that was used when this observation was made.
Reference(Device DeviceMetric)	(Measurement) Device	The device used to generate the observation data.

BackboneElement	Provides guide for interpretation	Guidance on how to interpret the value by comparison to a normal or recommended range. Multiple reference ranges are interpreted as an "OR". In other words, to represent two distinct target populations, two `referenceRange` elements would be used.
string	Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Extension	Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extension	Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
SimpleQuantity	Low Range, if relevant	The value of the low bound of the reference range. The low bound of the reference range endpoint is inclusive of the value (e.g. reference range is ≥ 5 - ≤ 9). If the low bound is omitted, it is assumed to be meaningless (e.g. reference range is ≤ 2.3).
SimpleQuantity	High Range, if relevant	The value of the high bound of the reference range. The high bound of the reference range endpoint is inclusive of the value (e.g. reference range is ≥ 5 - ≤ 9). If the high bound is omitted, it is assumed to be meaningless (e.g. reference range is ≥ 2.3).

CodeableConcept	Reference range qualifier	Codes to indicate the what part of the targeted reference population it applies to. For example, the normal or therapeutic range.
CodeableConcept	Reference range population	Codes to indicate the target population this reference range applies to. For example, a reference range may be based on the normal population or a particular sex or race. Multiple `appliesTo` are interpreted as an "AND" of the target populations. For example, to represent a target population of African American females, both a code of female and a code for African American would be used.
Range	Applicable age range, if relevant	The age at which this reference range is applicable. This is a neonatal age (e.g. number of weeks at term) if the meaning says so.
string	Text based reference range in an observation	Text based reference range in an observation which may be used when a quantitative range is not appropriate for an observation. An example would be a reference value of "Negative" or a list or table of "normals".
Reference(Observation QuestionnaireResponse MolecularSequence)	Related resource that belongs to the Observation group	This observation is a group observation (e.g. a battery, a panel of tests, a set of vital sign measurements) that includes the target as a member of the group.
Reference(DocumentReference ImagingStudy Media QuestionnaireResponse Observation MolecularSequence)	Related measurements the observation is made from	The target resource that represents a measurement from which this observation value is derived. For example, a calculated anion gap or a fetal measurement based on an ultrasound image.

BackboneElement	Component results	Some observations have multiple component observations. These component observations are expressed as separate code value pairs that share the same attributes. Examples include systolic and diastolic component observations for blood pressure measurement and multiple component observations for genetics observations.
string	Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Extension	Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

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CodeableConcept	Type of component observation (code / type)	Describes what was observed. Sometimes this is called the observation "code".
Quantity CodeableConcept string boolean integer Range Ratio SampledData time dateTime Period	Actual component result	The information determined as a result of making the observation, if the information has a simple value.
CodeableConcept	Why the component result is missing	Provides a reason why the expected value in the element Observation.component.value[x] is missing.

CodeableConcept	High, low, normal, etc.	A categorical assessment of an observation value. For example, high, low, normal.
	Provides guide for interpretation of component result	Guidance on how to interpret the value by comparison to a normal or recommended range.

Binding Strength	Binding Description (Value Set Name)	Binding Value Set	RPS
			MS [0..*]
			R [1..1]
			NRT
			NRT
preferred	CommonLanguages	http://hl7.org/fhir/ValueSet/language	NRT
			NRT

			NRT
			NRT

			NRT
			NRT
			NR
			NR

required	ObservationStatus	http://hl7.org/fhir/R4/ValueSet/obs	R[1..1]
preferred	ObservationCategoryCode s	https://hl7.org/fhir/R4/valueset-obs	R [1..*]
preferred	ObservationCategoryCode s	http://hl7.org/fhir/ValueSet/observation-category	R [1..1]
			NRT
			NRT
			NR
			NR
			NR

			NR
			NR
			NR
			NR
			NR
			NR
extensible	LOINCCodes	http://hl7.org/fhir/ValueSet/observation	R [1..1]

			R [1..1]
			NR
			MS [0..1]
			R [1..1]
			MS [0..1]

			NR
			MS [0..1]
extensible	DataAbsentReason	http://hl7.org/fhir/R4/ValueSet/data-absent-reason	NR
extensible	ObservationInterpretationCodes	https://hl7.org/fhir/R4/valueset-observation-interpretation-codes	MS [0..*]
			NR
example	SNOMEDCTBodyStructures	http://hl7.org/fhir/ValueSet/body-structures	MS [0..1]
example	ObservationMethods	http://hl7.org/fhir/ValueSet/observation-methods	MS [0..1]
			MS [0..1]
			NR

			NR
			NRT
			NRT

			NRT
			NR
			NR

preferred	ObservationReferenceRangeMeaningCodes	http://hl7.org/fhir/ValueSet/referenceRangeMeaningCodes	NR
example	ObservationReferenceRangeAppliesToCodes	http://hl7.org/fhir/ValueSet/referenceRangeAppliesToCodes	NR
			NR
			NR
			MS [0..*]
			MS [0..*]

			MS [0..*]
			NRT
			NRT

			NRT
example	LOINCCodes	http://hl7.org/fhir/R4/valueset-ob	R [1..1]
			MS [0..1]
extensible	DataAbsentReason	http://hl7.org/fhir/R4/ValueSet/da	NR

extensible	ObservationInterpretation Codes	https://hl7.org/fhir/R4/valueset-observation-interpretation-codes	MS [0..*]
			NR

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FHIR Path	Min	Max	Must Support	Data Type(s)
Location	0	*		
Location.id	0	1	Y	string
Location.meta	0	1		Meta
Location.implicitRules	0	1		uri
Location.language	0	1		code
Location.text	0	1		Narrative
Location.contained	0	*		Resource
Location.extension	0	*		Extension

Location.modifierExtension	0	*		Extension
Location.identifier	0	*		Identifier
Location.status	0	1	Y	code
Location.operationalStatus	0	1		Coding
Location.name	1	1	Y	string
Location.alias	0	*		string

Location.description	0	1		string
Location.mode	0	1		code
Location.type	0	*		CodeableConcept
Location.telecom	0	*	Y	ContactPoint
Location.address	0	1	Y	Address

Location.address.id	0	1		string
Location.address.extension	0	*		Extension
Location.address.use	0	1		code
Location.address.type	0	1		code
Location.address.text	0	1		string
Location.address.line	0	*	Y	string
Location.address.city	0	1	Y	string
Location.address.district	0	1		string
Location.address.state	0	1	Y	string
Location.address.postalCode	0	1	Y	string
Location.address.country	0	1		string
Location.address.period	0	1		Period

Location.physicalType	0	1		CodeableConcept
Location.position	0	1		BackboneElement
Location.position.id	0	1		string
Location.position.extension	0	*		Extension
Location.position.modifierExtension	0	*		Extension
Location.position.longitude	1	1		decimal

Location.position.latitude	1	1		decimal
Location.position.altitude	0	1		decimal
Location.managingOrganization	0	1	Y	Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-organization)
Location.partOf	0	1		Reference(Location)
Location.hoursOfOperation	0	*		BackboneElement
Location.hoursOfOperation.id	0	1		string
Location.hoursOfOperation.extension	0	*		Extension

Location.hoursOfOperation.modifierExtension	0	*		Extension
Location.hoursOfOperation.daysOfWeek	0	*		code
Location.hoursOfOperation.allDay	0	1		boolean
Location.hoursOfOperation.openingTime	0	1		time
Location.hoursOfOperation.closingTime	0	1		time
Location.availabilityExceptions	0	1		string
Location.endpoint	0	*		Reference(Endpoint)

FHIR Short Description	FHIR Definition
Details and position information for a physical place	Details and position information for a physical place where services are provided and resources and participants may be stored, found, contained, or accommodated.
Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.
Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.
A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.
Language of the resource content	The base language in which the resource is written.
Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.
Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored	May be used to represent additional information that is not part of the basic definition of the resource and that modifies the understanding of the element that contains it and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer is allowed to define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
Unique code or number identifying the location to its users	Unique code or number identifying the location to its users.
active suspended inactive	The status property covers the general availability of the resource, not the current value which may be covered by the operationStatus, or by a schedule/slots if they are configured for the location.
The operational status of the location (typically only for a bed/room)	The operational status covers operation values most relevant to beds (but can also apply to rooms/units/chairs/etc. such as an isolation unit/dialysis chair). This typically covers concepts such as contamination, housekeeping, and other activities like maintenance.
Name of the location as used by humans	Name of the location as used by humans. Does not need to be unique.
A list of alternate names that the location is known as, or was known as, in the past	A list of alternate names that the location is known as, or was known as, in the past.

Additional details about the location that could be displayed as further information to identify the location beyond its name	Description of the Location, which helps in finding or referencing the place.
instance kind	Indicates whether a resource instance represents a specific location or a class of locations.
Type of function performed	Indicates the type of function performed at the location.
Contact details of the location	The contact details of communication devices available at the location. This can include phone numbers, fax numbers, mobile numbers, email addresses and web sites.
Physical location	Physical location.

Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
home work temp old billing - purpose of this address	The purpose of this address.
postal physical both	Distinguishes between physical addresses (those you can visit) and mailing addresses (e.g. PO Boxes and care-of addresses). Most addresses are both.
Text representation of the address	Specifies the entire address as it should be displayed e.g. on a postal label. This may be provided instead of or as well as the specific parts.
Street name, number, direction & P.O. Box etc.	This component contains the house number, apartment number, street name, street direction, P.O. Box number, delivery hints, and similar address information.
Name of city, town etc.	The name of the city, town, suburb, village or other community or delivery center.
District name (aka county)	The name of the administrative area (county).
Sub-unit of country (abbreviations ok)	Sub-unit of a country with limited sovereignty in a federally organized country. A code may be used if codes are in common use (e.g. US 2 letter state codes).
US Zip Codes	A postal code designating a region defined by the postal service.
Country (e.g. can be ISO 3166 2 or 3 letter code)	Country - a nation as commonly understood or generally accepted.
Time period when address was/is in use	Time period when address was/is in use.

Physical form of the location	Physical form of the location, e.g. building, room, vehicle, road.
The absolute geographic location	The absolute geographic location of the Location, expressed using the WGS84 datum (This is the same co-ordinate system used in KML).
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
Longitude with WGS84 datum	Longitude. The value domain and the interpretation are the same as for the text of the longitude element in KML (see notes below).

Latitude with WGS84 datum	Latitude. The value domain and the interpretation are the same as for the text of the latitude element in KML (see notes below).
Altitude with WGS84 datum	Altitude. The value domain and the interpretation are the same as for the text of the altitude element in KML (see notes below).
Organization responsible for provisioning and upkeep	The organization responsible for the provisioning and upkeep of the location.
Another Location this one is physically a part of	Another Location of which this Location is physically a part of.
What days/times during a week is this location usually open	What days/times during a week is this location usually open.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
mon tue wed thu fri sat sun	Indicates which days of the week are available between the start and end Times.
The Location is open all day	The Location is open all day.
Time that the Location opens	Time that the Location opens.
Time that the Location closes	Time that the Location closes.
Description of availability exceptions	A description of when the locations opening ours are different to normal, e.g. public holiday availability. Succinctly describing all possible exceptions to normal site availability as detailed in the opening hours Times.
Technical endpoints providing access to services operated for the location	Technical endpoints providing access to services operated for the location.

Binding Strength	Binding Description	Binding Value Set	RPS
			R [1..*]
			R [1..1]
			NRT
			NRT
preferred	CommonLanguages	http://hl7.org/fhir/ValueSet	NRT
			NRT
			NRT
			NRT

			NRT
			NRT
required	LocationStatus	http://hl7.org/fhir/ValueSet	MS [0..1]
preferred	hl7VS-bedStatus	http://terminology.hl7.org	NR
			R [1..1]
			MS [0..*]

			NR
required	LocationMode	http://hl7.org/fhir/ValueSet	NR
extensible	ServiceDeliveryLocationRoleType	http://terminology.hl7.org	R [1..*] The following constraint is written into the CQL: valueset "Inpatient, Emergency, and Observation Locations": 'http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1046.265'
			MS [0..*]
			MS [0..1]

			NRT
			NRT
required	AddressUse	http://hl7.org/fhir/ValueSet	MS [0..1]
required	AddressType	http://hl7.org/fhir/ValueSet	NR
			NR
			NR
			NR
			NR
extensible	USPS Two Letter Alphabetic Codes	http://hl7.org/fhir/us/core	NR
			NR
			NR
			NR

example	Physical form of the location.	http://hl7.org/fhir/ValueSet	NR
			NR
			NRT
			NRT
			NRT
			NR

			NR
			NR
			NR
			MS [0..1]
			NR
			NRT
			NRT

			NRT
required	The days of the week.	http://hl7.org/fhir/ValueS	NR
			NR
			NR
			NR
			NR
			NR

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FHIR Path	Min	Max	Must Support?
Medication	0	*	
Medication.id	0	1	
Medication.meta	0	1	
Medication.implicitRules	0	1	
Medication.language	0	1	

Medication.text	0	1	
Medication.contained	0	*	
Medication.extension	0	*	

Medication.modifierExtension	0	*	
Medication.identifier	0	*	

Medication.code	1	1	Y
Medication.status	0	1	
Medication.manufacturer	0	1	
Medication.form	0	1	
Medication.amount	0	1	
Medication.ingredient	0	*	
Medication.ingredient.id	0	1	

Medication.ingredient.extension	0	*	
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Medication.ingredient.modifierExtension	0	*	
Medication.ingredient.item[x]	1	1	
Medication.ingredient.isActive	0	1	

Medication.ingredient.strength	0	1	
Medication.batch	0	1	
Medication.batch.id	0	1	
Medication.batch.extension	0	*	
Medication.batch.modifierExtension	0	*	
Medication.batch.lotNumber	0	1	
Medication.batch.expirationDate	0	1	

Data Type(s)	FHIR Short Description	FHIR Definition	Binding Strength
Medication	Definition of a Medication	The US Core Medication Profile is based upon the core FHIR Medication Resource and created to meet the 2015 Edition Common Clinical Data Set 'Medications' requirements.	
string	Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.	
Meta	Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.	
uri	A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.	
code	Language of the resource content	The base language in which the resource is written. (ex English)	preferred

Narrative	Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.	
Resource	Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.	
Extension	Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	

Extension	Extensions that cannot be ignored	May be used to represent additional information that is not part of the basic definition of the resource and that modifies the understanding of the element that contains it and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer is allowed to define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).	
Identifier	Business identifier for this medication	Business identifier for this medication.	

CodeableConcept	Codes that identify this medication	A code (or set of codes) that specify this medication, or a textual description if no code is available. Usage note: This could be a standard medication code such as a code from RxNorm, SNOMED CT, IDMP etc. It could also be a national or local formulary code, optionally with translations to other code systems.	extensible
code	active inactive entered-in-error	A code to indicate if the medication is in active use.	required
Reference(Organization)	Manufacturer of the item	Describes the details of the manufacturer of the medication product. This is not intended to represent the distributor of a medication product.	
CodeableConcept	powder tablets capsule +	Describes the form of the item. Powder; tablets; capsule.	example
Ratio	Amount of drug in package	Specific amount of the drug in the packaged product. For example, when specifying a product that has the same strength (For example, Insulin glargine 100 unit per mL solution for injection), this attribute provides additional clarification of the package amount (For example, 3 mL, 10mL, etc.).	
BackboneElement	Active or inactive ingredient	Identifies a particular constituent of interest in the product.	
string	Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	

Extension	Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	
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Extension	Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).	
CodeableConcept Reference(Substance Medication)	The actual ingredient or content	The actual ingredient - either a substance (simple ingredient) or another medication of a medication.	
boolean	Active ingredient indicator	Indication of whether this ingredient affects the therapeutic action of the drug.	

Ratio	Quantity of ingredient present	Specifies how many (or how much) of the items there are in this Medication. For example, 250 mg per tablet. This is expressed as a ratio where the numerator is 250mg and the denominator is 1 tablet.	
BackboneElement	Details about packaged medications	Information that only applies to packages (not products).	
string	Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	
Extension	Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	
Extension	Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that <u>modifies the understanding of</u>	
string	Identifier assigned to batch	The assigned lot number of a batch of the specified product.	
dateTime	When batch will expire	When this specific batch of product will expire.	

Binding Description	Binding Value Set	RPS
		MS [0..*]
		R [1..1]
		NRT
		NRT
CommonLanguages	http://hl7.org/fhir/ValueSet/languages	NRT

		NRT
		NRT
		NRT

		NRT
		NRT

USCoreMedicationCodes	http://hl7.org/fhir/us/core/STU	R [1..1]
Medication Status Codes	http://hl7.org/fhir/ValueSet/m	MS [0..*]
		NR
4.0.1 SNOMEDCTForm Codes	http://hl7.org/fhir/ValueSet/m	MS [0..1]
		MS [0..1]
		MS [0..*]
		NRT

		NRT
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		NRT
		R [1..1]
		NRT

		NR
		NR
		NRT
		NRT
		NRT
		NR
		NR

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FHIRPath	Min	Max	Data Type(s)
MedicationAdministration	0	*	
MedicationAdministration.id	0	1	id
MedicationAdministration.meta	0	1	Meta
MedicationAdministration.implicitRules	0	1	uri
MedicationAdministration.language	0	1	code
MedicationAdministration.text	0	1	Narrative
MedicationAdministration.contained	0	*	Resource
MedicationAdministration.extension	0	*	Extension

MedicationAdministration.modifierExtension	0	*	Extension
MedicationAdministration.identifier	0	*	Identifier
MedicationAdministration.instantiates	0	*	uri
MedicationAdministration.partOf	0	*	Reference(MedicationAdministration Procedure)
MedicationAdministration.status	1	1	code
MedicationAdministration.statusReason	0	*	CodeableConcept
MedicationAdministration.category	0	1	CodeableConcept
MedicationAdministration.medication[x]	1	1	CodeableConcept Reference(Medication)

MedicationAdministration.subject	1	1	Reference(Patient Group)
MedicationAdministration.context	0	1	Reference(Encounter EpisodeOfCare)
MedicationAdministration.supportingInformation	0	*	Reference(Any)
MedicationAdministration.effective[x]	1	1	dateTime Period
MedicationAdministration.performer	0	*	BackboneElement
MedicationAdministration.performer.id	0	1	string
MedicationAdministration.performer.extension	0	*	Extension
MedicationAdministration.performer.modifierExtension	0	*	Extension

MedicationAdministration.performer.function	0	1	CodeableConcept
MedicationAdministration.performer.actor	1	1	Reference(Practitioner PractitionerRole Patient RelatedPerson Device)
MedicationAdministration.reasonCode	0	*	CodeableConcept
MedicationAdministration.reasonReference	0	*	Reference(Condition Observation DiagnosticReport)
MedicationAdministration.request	0	1	Reference(MedicationRequest)
MedicationAdministration.device	0	*	Reference(Device)
MedicationAdministration.note	0	*	Annotation
MedicationAdministration.dosage	0	1	BackboneElement
MedicationAdministration.dosage.id	0	1	string
MedicationAdministration.dosage.extension	0	*	Extension

MedicationAdministration.dosage.modifierExtension	0	*	Extension
MedicationAdministration.dosage.text	0	1	string
MedicationAdministration.dosage.site	0	1	CodeableConcept
MedicationAdministration.dosage.route	0	1	CodeableConcept
MedicationAdministration.dosage.method	0	1	CodeableConcept
MedicationAdministration.dosage.dose	0	1	SimpleQuantity
MedicationAdministration.dosage.rate[x]	0	1	Ratio SimpleQuantity

MedicationAdministration.eventHistory	0	*	Reference(Provenance)
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FHIR Short Description	FHIR Definition
Administration of medication to a patient	Describes the event of a patient consuming or otherwise being administered a medication. This may be as simple as swallowing a tablet or it may be a long running infusion. Related resources tie this event to the authorizing prescription, and the specific encounter between patient and health care practitioner.
Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.
Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.
A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.
Language of the resource content	The base language in which the resource is written.
Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.
Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored	May be used to represent additional information that is not part of the basic definition of the resource and that modifies the understanding of the element that contains it and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer is allowed to define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
External identifier	Identifiers associated with this Medication Administration that are defined by business processes and/or used to refer to it when a direct URL reference to the resource itself is not appropriate. They are business identifiers assigned to this resource by the performer or other systems and remain constant as the resource is updated and propagates from server to server.
Instantiates protocol or definition	A protocol, guideline, orderset, or other definition that was adhered to in whole or in part by this event.
Part of referenced event	A larger event of which this particular event is a component or step.
in-progress not-done on-hold completed entered-in-error stopped unknown	Will generally be set to show that the administration has been completed. For some long running administrations such as infusions, it is possible for an administration to be started but not completed or it may be paused while some other process is under way.
Reason administration not performed	A code indicating why the administration was not performed.
Type of medication usage	Indicates where the medication is expected to be consumed or administered.
What was administered	Identifies the medication that was administered. This is either a link to a resource representing the details of the medication or a simple attribute carrying a code that identifies the medication from a known list of medications.

Who received medication	The person or animal or group receiving the medication.
Encounter or Episode of Care administered as part of	The visit, admission, or other contact between patient and health care provider during which the medication administration was performed.
Additional information to support administration	Additional information (for example, patient height and weight) that supports the administration of the medication.
Start and end time of administration	A specific date/time or interval of time during which the administration took place (or did not take place, when the 'notGiven' attribute is true). For many administrations, such as swallowing a tablet the use of dateTime is more appropriate.
Who performed the medication administration and what they did	Indicates who or what performed the medication administration and how they were involved.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).

Type of performance	Distinguishes the type of involvement of the performer in the medication administration.
Who performed the medication administration	Indicates who or what performed the medication administration.
Reason administration performed	A code indicating why the medication was given.
Condition or observation that supports why the medication was administered	Condition or observation that supports why the medication was administered.
Request administration performed against	The original request, instruction or authority to perform the administration.
Device used to administer	The device used in administering the medication to the patient. For example, a particular infusion pump.
Information about the administration	Extra information about the medication administration that is not conveyed by the other attributes.
Details of how medication was taken + Rule: SHALL have at least one of dosage.dose or dosage.rate[x]	Describes the medication dosage information details e.g. dose, rate, site, route, etc.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
Free text dosage instructions e.g. SIG	Free text dosage can be used for cases where the dosage administered is too complex to code. When coded dosage is present, the free text dosage may still be present for display to humans. The dosage instructions should reflect the dosage of the medication that was administered.
Body site administered to	A coded specification of the anatomic site where the medication first entered the body. For example, "left arm".
Path of substance into body	A code specifying the route or physiological path of administration of a therapeutic agent into or onto the patient. For example, topical, intravenous, etc.
How drug was administered	A coded value indicating the method by which the medication is intended to be or was introduced into or on the body. This attribute will most often NOT be populated. It is most commonly used for injections. For example, Slow Push, Deep IV.
Amount of medication per dose	The amount of the medication given at one administration event. Use this value when the administration is essentially an instantaneous event such as a swallowing a tablet or giving an injection.
Dose quantity per unit of time	Identifies the speed with which the medication was or will be introduced into the patient. Typically, the rate for an infusion e.g. 100 ml per 1 hour or 100 ml/hr. May also be expressed as a rate per unit of time, e.g. 500 ml per 2 hours. Other examples: 200 mcg/min or 200 mcg/1 minute; 1 liter/8 hours.

A list of events of interest in the lifecycle

A summary of the events of interest that have occurred, such as when the administration was verified.

Binding Strength	Binding Description (Value Set Name)	Binding Value Set	RPS
			MS [0..*]
			R [1..1]
			NRT
			NRT
preferred but limited to AllLanguages	CommonLanguages	http://hl7.org/fhir/ValueSet/	NRT
			NRT
			NRT
			NRT

			NRT
			NRT
			NR
			NR
required	MedicationAdministration Status Codes	http://hl7.org/fhir/ValueSet/	R [1..1]
example	SNOMEDCTReasonMedicationNotGiven Codes	http://hl7.org/fhir/ValueSet/	MS [0..*]
preferred	MedicationAdministration Category Codes	http://hl7.org/fhir/R4/valueset/	MS [0..*]
example	SNOMEDCTMedicationCodes	http://hl7.org/fhir/ValueSet/	R [1..1]

			R [1..1]
			MS [0..1]
			NR
			R [1..1]
			NR
			NRT
			NRT
			NRT

example	MedicationAdministration Performer Function Codes	http://hl7.org/fhir/ValueSet/	NR
			NR
example	ReasonMedicationGiven Codes	http://hl7.org/fhir/ValueSet/	MS [0..*]
			MS [0..*]
			MS [0..1]
			NR
			NR
			NR
			NRT
			NRT

			NRT
			NR
example	SNOMEDCTAnatomicalStructureForAdministrationSiteCodes	http://hl7.org/fhir/ValueSet/	NR
example	SNOMEDCTRouteCodes	http://hl7.org/fhir/ValueSet/	NR
example	SNOMEDCTAdministrationMethodCodes	http://hl7.org/fhir/ValueSet/	NR
			NR
			NR

			NR
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FHIR Path	Min	Max	Must Support?	Data Type(s)
MedicationRequest	0	*		
MedicationRequest.id	0	1		string
MedicationRequest.meta	0	1		Meta
MedicationRequest.implicitRules	0	1		uri

MedicationRequest.language	0	1		code
MedicationRequest.text	0	1		Narrative
MedicationRequest.contained	0	*		Resource

MedicationRequest.extension	0	*		Extension
MedicationRequest.modifierExtension	0	*		Extension

MedicationRequest.identifier	0	*		Identifier
MedicationRequest.status	1	1	Y	code
MedicationRequest.statusReason	0	1		CodeableConcept
MedicationRequest.intent	1	1	Y	code

MedicationRequest.category	0	*		CodeableConcept
MedicationRequest.priority	0	1		code
MedicationRequest.doNotPerform	0	1		boolean
MedicationRequest.reported[x]	0	1	Y	boolean Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitioner http://hl7.org/fhir/us/core/StructureDefinition/us-core-organization http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient http://hl7.org/fhir/us/core/StructureDefinition/us-core-practitionerrole http://hl7.org/fhir/us/core/StructureDefinition/us-core-relatedperson)

MedicationRequest.medication[x]	1	1	Y	CodeableConcept Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-medication)
MedicationRequest.subject	1	1	Y	Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient)
MedicationRequest.encounter	0	1	Y	Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter)
MedicationRequest.supportingInformation	0	*		Reference(Resource)
MedicationRequest.authoredOn	1	1	Y	dateTime
MedicationRequest.requester	1	1	Y	Reference(US Core Practitioner Profile US Core Organization Profile US Core Patient Profile)
MedicationRequest.performer	0	1		Reference(Practitioner PractitionerRole Organization Patient Device RelatedPerson CareTeam)

MedicationRequest.performerType	0	1		CodeableConcept
MedicationRequest.recorder	0	1		Reference(Practitioner PractitionerRole)
MedicationRequest.reasonCode	0	*		CodeableConcept
MedicationRequest.reasonReference	0	*		Reference(Condition Observation)
MedicationRequest.instantiatesCanonical	0	*		canonical
MedicationRequest.instantiatesUri	0	*		uri
MedicationRequest.basedOn	0	*		Reference(CarePlan MedicationRequest ServiceRequest ImmunizationRecommendation)
MedicationRequest.groupIdentifier	0	1		Identifier

MedicationRequest.courseOfTherapyType	0	1		CodeableConcept
MedicationRequest.insurance	0	*		Reference(Coverage ClaimResponse)
MedicationRequest.note	0	*		Annotation
MedicationRequest.dosageInstruction	0	*	Y	Dosage
MedicationRequest.dosageInstruction.id	0	1		string

MedicationRequest.dosageInstruction.extension	0	*		Extension
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MedicationRequest.dosageInstruction.modifierExtension	0	*		Extension
MedicationRequest.dosageInstruction.sequence	0	1		integer
MedicationRequest.dosageInstruction.text	0	1	Y	string

MedicationRequest.dosageInstruction.additionalInstruction	0	*		CodeableConcept
MedicationRequest.dosageInstruction.patientInstruction	0	1		string
MedicationRequest.dosageInstruction.timing	0	1		Timing
MedicationRequest.dosageInstruction.asNeeded[x]	0	1		boolean CodeableConcept
MedicationRequest.dosageInstruction.site	0	1		CodeableConcept

MedicationRequest.dosageInstruction.route	0	1		CodeableConcept
MedicationRequest.dosageInstruction.method	0	1		CodeableConcept
MedicationRequest.dosageInstruction.doseAndRate	0	*		Element
MedicationRequest.dosageInstruction.doseAndRate.id	0	1		string
MedicationRequest.dosageInstruction.doseAndRate.extension	0	*		Extension
MedicationRequest.dosageInstruction.doseAndRate.type	0	1		CodeableConcept

MedicationRequest.dosageInstruction.doseAndRate.dose[x]	0	1		Range Quantity {SimpleQuantity}
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MedicationRequest.dosageInstruction.doseAndRate.rate[x]	0	1		Ratio RangeQuantity {SimpleQuantity}
MedicationRequest.dosageInstruction.maxDosePerPeriod	0	1		Ratio
MedicationRequest.dosageInstruction.maxDosePerAdministration	0	1		Quantity {SimpleQuantity}
MedicationRequest.dosageInstruction.maxDosePerLifetime	0	1		Quantity {SimpleQuantity}

MedicationRequest.dispenseRequest	0	1		BackboneElement
MedicationRequest.dispenseRequest.id	0	1		string
MedicationRequest.dispenseRequest.extension	0	*		Extension

MedicationRequest.dispenseRequest.modifierExtension	0	*		Extension
MedicationRequest.dispenseRequest.initialFill	0	1		BackboneElement
MedicationRequest.dispenseRequest.initialFill.id	0	1		string

MedicationRequest.dispenseRequest.initialFill.extension	0	*		Extension
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MedicationRequest.dispenseRequest.initialFill.modifierExtension	0	*		Extension
MedicationRequest.dispenseRequest.initialFill.quantity	0	1		Quantity {SimpleQuantity}
MedicationRequest.dispenseRequest.initialFill.duration	0	1		Duration
MedicationRequest.dispenseRequest.dispenseInterval	0	1		Duration

MedicationRequest.dispenseRequest.validityPeriod	0	1		Period
MedicationRequest.dispenseRequest.numberOfRepeatsAllowed	0	1		unsignedInt
MedicationRequest.dispenseRequest.quantity	0	1		Quantity {SimpleQuantity}
MedicationRequest.dispenseRequest.expectedSupplyDuration	0	1		Duration

MedicationRequest.dispenseRequest.performer	0	1		Reference(Organization)
MedicationRequest.substitution	0	1		BackboneElement
MedicationRequest.substitution.id	0	1		string
MedicationRequest.substitution.extension	0	*		Extension

MedicationRequest.substitution.modifierExtension	0	*		Extension
MedicationRequest.substitution.allowed[x]	1	1		boolean CodeableConcept
MedicationRequest.substitution.reason	0	1		CodeableConcept
MedicationRequest.priorPrescription	0	1		Reference(Medication Request)

MedicationRequest.detectedIssue	0	*		Reference(DetectedIssue)
MedicationRequest.eventHistory	0	*		Reference(Provenance)

FHIR Short Description	FHIR Definition
Ordering of medication for patient or group	The US Core Medication Request (Order) Profile is based upon the core FHIR MedicationRequest Resource and created to meet the 2015 Edition Common Clinical Data Set 'Medications' requirements.
Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.
Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.
A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.

Language of the resource content	The base language in which the resource is written.
Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.
Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.

Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
Extensions that cannot be ignored	May be used to represent additional information that is not part of the basic definition of the resource and that modifies the understanding of the element that contains it and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer is allowed to define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).

External ids for this request	Identifiers associated with this medication request that are defined by business processes and/or used to refer to it when a direct URL reference to the resource itself is not appropriate. They are business identifiers assigned to this resource by the performer or other systems and remain constant as the resource is updated and propagates from server to server.
active on-hold cancelled completed entered-in-error stopped draft unknown	A code specifying the current state of the order. Generally, this will be active or completed state.
Reason for current status+F14	Captures the reason for the current state of the MedicationRequest.
proposal plan order original-order reflex-order filler-order instance-order option	Whether the request is a proposal, plan, or an original order.

Type of medication usage	Indicates the type of medication request (for example, where the medication is expected to be consumed or administered (i.e. inpatient or outpatient)).
routine urgent asap stat	Indicates how quickly the Medication Request should be addressed with respect to other requests.
True if request is prohibiting action	If true indicates that the provider is asking for the medication request not to occur.
Reported rather than primary record	Indicates if this record was captured as a secondary 'reported' record rather than as an original primary source-of-truth record. It may also indicate the source of the report.

Medication to be taken	Identifies the medication being requested. This is a link to a resource that represents the medication which may be the details of the medication or simply an attribute carrying a code that identifies the medication from a known list of medications.
Who or group medication request is for	A link to a resource representing the person or set of individuals to whom the medication will be given.
Encounter created as part of encounter/admission/stay	The Encounter during which this [x] was created or to which the creation of this record is tightly associated.
Information to support ordering of the medication	Include additional information (for example, patient height and weight) that supports the ordering of the medication.
When request was initially authored	The date (and perhaps time) when the prescription was initially written or authored on.
Who/What requested the Request	The individual, organization, or device that initiated the request and has responsibility for its activation.
Intended performer of administration	The specified desired performer of the medication treatment (e.g. the performer of the medication administration).

Desired kind of performer of the medication administration	Indicates the type of performer of the administration of the medication.
Person who entered the request	The person who entered the order on behalf of another individual for example in the case of a verbal or a telephone order.
Reason or indication for ordering or not ordering the medication	The reason or the indication for ordering or not ordering the medication.
Condition or observation that supports why the prescription is being written	Condition or observation that supports why the medication was ordered.
Instantiates FHIR protocol or definition	The URL pointing to a protocol, guideline, orderset, or other definition that is adhered to in whole or in part by this MedicationRequest.
Instantiates external protocol or definition	The URL pointing to an externally maintained protocol, guideline, orderset or other definition that is adhered to in whole or in part by this MedicationRequest.
What request fulfills	A plan or request that is fulfilled in whole or in part by this medication request.
Composite request this is part of	A shared identifier common to all requests that were authorized more or less simultaneously by a single author, representing the identifier of the requisition or prescription.

Overall pattern of medication administration	The description of the overall pattern of the administration of the medication to the patient.
Associated insurance coverage	Insurance plans, coverage extensions, pre-authorizations and/or pre-determinations that may be required for delivering the requested service.
Information about the prescription	Extra information about the prescription that could not be conveyed by the other attributes.
How the medication should be taken	Indicates how the medication is to be used by the patient.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.

Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
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Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
The order of the dosage instructions	Indicates the order in which the dosage instructions should be applied or interpreted.
Free text dosage instructions e.g. SIG	Free text dosage instructions e.g. SIG.

Supplemental instruction or warnings to the patient - e.g. "with meals", "may cause drowsiness"	Supplemental instructions to the patient on how to take the medication (e.g. "with meals" or "take half to one hour before food") or warnings for the patient about the medication (e.g. "may cause drowsiness" or "avoid exposure of skin to direct sunlight or sunlamps").
Patient or consumer oriented instructions	Instructions in terms that are understood by the patient or consumer.
When medication should be administered	When medication should be administered.
Take "as needed" (for x)	Indicates whether the Medication is only taken when needed within a specific dosing schedule (Boolean option), or it indicates the precondition for taking the Medication (CodeableConcept).
Body site to administer to	Body site to administer to.

How drug should enter body	How drug should enter body.
Technique for administering medication	Technique for administering medication.
Amount of medication administered	The amount of medication administered.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
The kind of dose or rate specified	The kind of dose or rate specified, for example, ordered or calculated.

Amount of medication per dose

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Amount of medication per dose.

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Amount of medication per unit of time	Amount of medication per unit of time.
Upper limit on medication per unit of time	Upper limit on medication per unit of time.
Upper limit on medication per administration	Upper limit on medication per administration.
Upper limit on medication per lifetime of the patient	Upper limit on medication per lifetime of the patient.

Medication supply authorization	Indicates the specific details for the dispense or medication supply part of a medication request (also known as a Medication Prescription or Medication Order). Note that this information is not always sent with the order. There may be in some settings (e.g. hospitals) institutional or system support for completing the dispense details in the pharmacy department.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
First fill details	Indicates the quantity or duration for the first dispense of the medication.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.

Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
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First fill quantity	The amount or quantity to provide as part of the first dispense.
First fill duration	The length of time that the first dispense is expected to last.
Minimum period of time between dispenses	The minimum period of time that must occur between dispenses of the medication.

Time period supply is authorized for	This indicates the validity period of a prescription (stale dating the Prescription).
Number of refills authorized	An integer indicating the number of times, in addition to the original dispense, (aka refills or repeats) that the patient can receive the prescribed medication. Usage Notes: This integer does not include the original order dispense. This means that if an order indicates dispense 30 tablets plus "3 repeats", then the order can be dispensed a total of 4 times and the patient can receive a total of 120 tablets. A prescriber may explicitly say that zero refills are permitted after the initial dispense.
Amount of medication to supply per dispense	The amount that is to be dispensed for one fill.
Number of days supply per dispense	Identifies the period time over which the supplied product is expected to be used, or the length of time the dispense is expected to last.

Intended dispenser	Indicates the intended dispensing Organization specified by the prescriber.
Any restrictions on medication substitution	Indicates whether or not substitution can or should be part of the dispense. In some cases, substitution must happen, in other cases substitution must not happen. This block explains the prescriber's intent. If nothing is specified substitution may be done.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

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Whether substitution is allowed or not	True if the prescriber allows a different drug to be dispensed from what was prescribed.
Why should (not) substitution be made	Indicates the reason for the substitution, or why substitution must or must not be performed.
An order/prescription that is being replaced	A link to a resource representing an earlier order related order or prescription.

Clinical Issue with action	Indicates an actual or potential clinical issue with or between one or more active or proposed clinical actions for a patient; e.g. Drug-drug interaction, duplicate therapy, dosage alert etc.
A list of events of interest in the lifecycle	Links to Provenance records for past versions of this resource or fulfilling request or event resources that identify key state transitions or updates that are likely to be relevant to a user looking at the current version of the resource.

Comments	Binding Strength	Binding Description	Binding Value Set
The only time that a resource does not have an id is when it is being submitted to the server using a create operation.			
Asserting this rule set restricts the content to be only understood by a limited set of trading partners. This inherently limits the usefulness of the data in the long term. However, the existing health eco-system is highly fractured, and not yet ready to define, collect, and exchange data in a generally computable sense. Wherever possible, implementers and/or specification writers should avoid using this element. Often, when used, the URL is a reference to an implementation guide that defines these special rules as part of it's narrative along with other profiles, value sets, etc.			

Language is provided to support indexing and accessibility (typically, services such as text to speech use the language tag). The html language tag in the narrative applies to the narrative. The language tag on the resource may be used to specify the language of other presentations generated from the data in the resource. Not all the content has to be in the base language. The Resource.language should not be assumed to apply to the narrative automatically. If a language is specified, it should it also be specified on the div element in the html (see rules in HTML5 for information about the relationship between xml:lang and the html lang attribute).	preferred	CommonLanguages	http://hl7.org/fhir/
Contained resources do not have narrative. Resources that are not contained SHOULD have a narrative. In some cases, a resource may only have text with little or no additional discrete data (as long as all minOccurs=1 elements are satisfied). This may be necessary for data from legacy systems where information is captured as a "text blob" or where text is additionally entered raw or narrated and encoded information is added later.			
This should never be done when the content can be identified properly, as once identification is lost, it is extremely difficult (and context dependent) to restore it again. Contained resources may have profiles and tags In their meta elements, but SHALL NOT have security labels.			

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This is a business identifier, not a resource identifier.			
This element is labeled as a modifier because the status contains codes that mark the resource as not currently valid.	required	medicationrequest Status	http://hl7.org/fhir/
This is generally only used for "exception" statuses such as "suspended" or "cancelled". The reason why the MedicationRequest was created at all is captured in reasonCode, not here.	example	medicationRequest Status Reason Codes	http://hl7.org/fhir/
It is expected that the type of requester will be restricted for different stages of a MedicationRequest. For example, Proposals can be created by a patient, relatedPerson, Practitioner or Device. Plans can be created by Practitioners, Patients, RelatedPersons and Devices. Original orders can be created by a Practitioner only. An instance-order is an instantiation of a request or order and may be used to populate Medication Administration Record. This element is labeled as a modifier because the intent alters when and how the resource is actually applicable.	required	medicationRequest Intent	http://hl7.org/fhir/

The category can be used to include where the medication is expected to be consumed or other types of requests.	example	medicationRequest Category Codes	http://hl7.org/fhir/
	required	RequestPriority	http://hl7.org/fhir/
If do not perform is not specified, the request is a positive request e.g. "do perform".			

If only a code is specified, then it needs to be a code for a specific product. If more information is required, then the use of the Medication resource is recommended. For example, if you require form or lot number or if the medication is compounded or extemporaneously prepared, then you must reference the Medication resource.	extensible	US Core Medication Codes (RxNorm)	http://cts.nlm.nih.gov
The subject on a medication request is mandatory. For the secondary use case where the actual subject is not provided, there still must be an anonymized subject specified.			
This will typically be the encounter the event occurred within, but some activities may be initiated prior to or after the official completion of an encounter but still be tied to the context of the encounter." If there is a need to link to episodes of care they will be handled with an extension.			

If specified without indicating a performer, this indicates that the performer must be of the specified type. If specified with a performer then it indicates the requirements of the performer if the designated performer is not available.	example	Procedure Performer Role Codes	http://hl7.org/fhir/
This could be a diagnosis code. If a full condition record exists or additional detail is needed, use reasonReference.	example	Condition/ Problem/Diagnosis Codes	http://hl7.org/fhir/
This is a reference to a condition or observation that is the reason for the medication order. If only a code exists, use reasonCode.			
can include a version number (FHIR based)			

This attribute should not be confused with the protocol of the medication.	example	Medication request course of therapy codes	http://hl7.org/fhir/
There are examples where a medication request may include the option of an oral dose or an Intravenous or Intramuscular dose. For example, "Ondansetron 8mg orally or IV twice a day as needed for nausea" or "Compazine® (prochlorperazine) 5-10mg PO or 25mg PR bid prn nausea or vomiting". In these cases, two medication requests would be created that could be grouped together. The decision on which dose and route of administration to use is based on the patient's condition at the time the dose is needed.			

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Information about administration or preparation of the medication (e.g. "infuse as rapidly as possibly via intraperitoneal port" or "immediately following drug x") should be populated in dosage.text.	example	A coded concept identifying additional instructions such as "take with water" or "avoid operating heavy machinery".	http://hl7.org/fhir/
This attribute might not always be populated while the Dosage.text is expected to be populated. If both are populated, then the Dosage.text should reflect the content of the Dosage.timing.			
Can express "as needed" without a reason by setting the Boolean = True. In this case the CodeableConcept is not populated. Or you can express "as needed" with a reason by including the CodeableConcept. In this case the Boolean is assumed to be True. If you set the Boolean to False, then the dose is given according to the schedule and is not "prn" or "as needed".	example	A coded concept identifying the precondition that should be met or evaluated prior to consuming or administering a medication dose. For example "pain", "30 minutes prior to sexual intercourse", "on flare-up" etc.	http://hl7.org/fhir/
If the use case requires attributes from the BodySite resource (e.g. to identify and track separately) then use the standard extension [bodySite](http://hl7.org/fhir/R4/extension-bodySite.html). May be a summary code, or a reference to a very precise definition of the location, or both.	example	A coded concept describing the site location the medicine enters into or onto the body.	http://hl7.org/fhir/

	example	A coded concept describing the route or physiological path of administration of a therapeutic agent into or onto the body of a subject.	http://hl7.org/fhir/
Terminologies used often pre-coordinate this term with the route and or form of administration.	example	A coded concept describing the technique by which the medicine is administered.	http://hl7.org/fhir/
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	example	The kind of dose or rate specified.	http://hl7.org/fhir/

Note that this specifies the quantity of the specified medication, not the quantity for each active ingredient(s). Each ingredient amount can be communicated in the Medication resource. For example, if one wants to communicate that a tablet was 375 mg, where the dose was one tablet, you can use the Medication resource to document that the tablet was comprised of 375 mg of drug XYZ. Alternatively if the dose was 375 mg, then you may only need to use the Medication resource to indicate this was a tablet. If the example were an IV such as dopamine and you wanted to communicate that 400mg of dopamine was mixed in 500 ml of some IV solution, then this would all be communicated in the Medication resource. If the administration is not intended to be instantaneous (rate is present or timing has a duration), this can be specified to convey the total amount to be administered over the period of time as indicated by the schedule e.g. 500 ml in dose, with timing used to convey that this should be done over 4 hours.			
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It is possible to supply both a rate and a doseQuantity to provide full details about how the medication is to be administered and supplied. If the rate is intended to change over time, depending on local rules/regulations, each change should be captured as a new version of the MedicationRequest with an updated rate, or captured with a new MedicationRequest with the new rate. It is possible to specify a rate over time (for example, 100 ml/hour) using either the rateRatio and rateQuantity. The rateQuantity approach requires systems to have the capability to parse UCUM grammar where ml/hour is included rather than a specific ratio where the time is specified as the denominator. Where a rate such as 500ml over 2 hours is specified, the use of rateRatio may be more semantically correct than specifying using a rateQuantity of 250 mg/hour.			
This is intended for use as an adjunct to the dosage when there is an upper cap. For example "2 tablets every 4 hours to a maximum of 8/day".			
This is intended for use as an adjunct to the dosage when there is an upper cap. For example, a body surface area related dose with a maximum amount, such as 1.5 mg/m² (maximum 2 mg) IV over 5 – 10 minutes would have doseQuantity of 1.5 mg/m² and maxDosePerAdministration of 2 mg.			

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If populating this element, either the quantity or the duration must be included.			

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It reflects the prescribers' perspective for the validity of the prescription. Dispenses must not be made against the prescription outside of this period. The lower-bound of the Dispensing Window signifies the earliest date that the prescription can be filled for the first time. If an upper-bound is not specified then the Prescription is open-ended or will default to a stale-date based on regulations.			
If displaying "number of authorized fills", add 1 to this number.			
In some situations, this attribute may be used instead of quantity to identify the amount supplied by how long it is expected to last, rather than the physical quantity issued, e.g. 90 days supply of medication (based on an ordered dosage). When possible, it is always better to specify quantity, as this tends to be more precise. expectedSupplyDuration will always be an estimate that can be influenced by external factors.			

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This element is labeled as a modifier because whether substitution is allow or not, it cannot be ignored.	example	ActSubstanceAdmin SubstitutionCode	http://terminology
	example	SubstanceAdminSub stitutionReason	http://terminology
	Y		

This element can include a detected issue that has been identified either by a decision support system or by a clinician and may include information on the steps that were taken to address the issue.	Y		
This might not include provenances for all versions of the request – only those deemed “relevant” or important. This SHALL NOT include the provenance associated with this current version of the resource. (If that provenance is deemed to be a “relevant” change, it will need to be added as part of a later update. Until then, it can be queried directly as the provenance that points to this version using _revinclude All Provenances should have some historical version of this Request as their subject.).	Y		

RPS
MS [0..*]
R [1..1]
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R [1..1] CQL is constrained to 'completed'
NRT
R [1..1]

MS [0..*]
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MS [0..1]
MS [0..1]

R [1..1]
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FHIR Path	Min	Max	Data Type(s)
Observation	0	*	DomainResource
Observation.id	0	1	id
Observation.meta	0	1	Meta
Observation.implicitRules	0	1	uri
Observation.language	0	1	code
Observation.text	0	1	Narrative

Observation.contained	0	*	Resource
Observation.extension	0	*	Extension

Observation.modifierExtension	0	*	Extension
Observation.identifier	0	*	Identifier
Observation.basedOn	0	*	Reference(CarePlan DeviceRequest ImmunizationRecommendation MedicationRequest NutritionOrder ServiceRequest)

Observation.partOf	0	*	Reference(MedicationAdministration MedicationDispense MedicationStatement Procedure Immunization ImagingStudy)
Observation.status	1	1	code
Observation.category	0	*	CodeableConcept
Observation.code	1	1	CodeableConcept
Observation.subject	0	1	Reference(Patient Group Device Location)

Observation.focus	0	*	Reference(Any)
Observation.encounter	0	1	Reference(Encounter)
Observation.effective[x]	0	1	dateTime Period Timing Instant

Observation.issued	0	1	instant
Observation.performer	0	*	Reference(Practitioner PractitionerRole Organization CareTeam Patient RelatedPerson)
Observation.value[x]	0	1	Quantity CodeableConcept string boolean integer Range Ratio SampledData time dateTime Period
Observation.dataAbsentReason	0	1	CodeableConcept
Observation.interpretation	0	*	CodeableConcept
Observation.note	0	*	Annotation
Observation.bodySite	0	1	CodeableConcept
Observation.method	0	1	CodeableConcept
Observation.specimen	0	1	Reference(Specimen)

Observation.device	0	1	Reference(Device DeviceMetric)
Observation.referenceRange	0	*	BackboneElement
Observation.referenceRange.id	0	1	string
Observation.referenceRange.extension	0	*	Extension

Observation.referenceRange. modifierExtension	0	*	Extension
Observation.referenceRange. low	0	1	SimpleQuantity

Observation.referenceRange. high	0	1	SimpleQuantity
Observation.referenceRange. type	0	1	CodeableConcept
Observation.referenceRange. appliesTo	0	*	CodeableConcept
Observation.referenceRange. age	0	1	Range
Observation.referenceRange. text	0	1	string

Observation.hasMember	0	*	Reference(Observation QuestionnaireResponse MolecularSequence)
Observation.derivedFrom	0	*	Reference(DocumentReference ImagingStudy Media QuestionnaireResponse Observation MolecularSequence)
Observation.component	0	*	BackboneElement
Observation.component.id	0	1	string
Observation.component.extension	0	*	Extension

Observation.component.modifierExtension	0	*	Extension
Observation.component.code	1	1	CodeableConcept
Observation.component.value[x]	0	1	Quantity CodeableConcept string boolean integer Range Ratio SampledData dateTime Period
Observation.component.dataAbsentReason	0	1	CodeableConcept

Observation.component.interpretation	0	*	CodeableConcept
Observation.component.referenceRange	0	*	

FHIR Short Description	FHIR Definition	Binding Strength
Measurements and simple assertions	Measurements and simple assertions made about a patient, device or other subject.	
Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.	
Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.	
A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.	
Language of the resource content	The base language in which the resource is written.	preferred but limited to AllLanguages
Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.	

Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.	
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	

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Business Identifier for observation	A unique identifier assigned to this observation.	
Fulfills plan, proposal or order	A plan, proposal or order that is fulfilled in whole or in part by this event. For example, a MedicationRequest may require a patient to have laboratory test performed before it is dispensed.	

Part of referenced event	A larger event of which this particular Observation is a component or step. For example, an observation as part of a procedure.	
registered preliminary final amended +	The status of the result value.	required
Classification of type of observation	A code that classifies the general type of observation being made.	preferred
Type of observation (code / type)	Describes what was observed. Sometimes this is called the observation "name".	example
Who and/or what the observation is about	The patient, or group of patients, location, or device this observation is about and into whose record the observation is placed. If the actual focus of the observation is different from the subject (or a sample of, part, or region of the subject), the `focus` element or the `code` itself specifies the actual focus of the observation.	

What the observation is about, when it is not about the subject of record	The actual focus of an observation when it is not the patient of record representing something or someone associated with the patient such as a spouse, parent, fetus, or donor. For example, fetus observations in a mother's record. The focus of an observation could also be an existing condition, an intervention, the subject's diet, another observation of the subject, or a body structure such as tumor or implanted device. An example use case would be using the Observation resource to capture whether the mother is trained to change her child's tracheostomy tube. In this example, the child is the patient of record and the mother is the focus.	
Healthcare event during which this observation is made	The healthcare event (e.g. a patient and healthcare provider interaction) during which this observation is made.	
Clinically relevant time/time-period for observation	The time or time-period the observed value is asserted as being true. For biological subjects - e.g. human patients - this is usually called the "physiologically relevant time". This is usually either the time of the procedure or of specimen collection, but very often the source of the date/time is not known, only the date/time itself.	

Date/Time this version was made available	The date and time this version of the observation was made available to providers, typically after the results have been reviewed and verified.	
Who is responsible for the observation	Who was responsible for asserting the observed value as "true".	
Actual result	The information determined as a result of making the observation, if the information has a simple value.	
Why the result is missing	Provides a reason why the expected value in the element Observation.value[x] is missing.	extensible
High, low, normal, etc.	A categorical assessment of an observation value. For example, high, low, normal.	extensible
Comments about the observation	Comments about the observation or the results.	
Observed body part	Indicates the site on the subject's body where the observation was made (i.e. the target site).	example
How it was done	Indicates the mechanism used to perform the observation.	example
Specimen used for this observation	The specimen that was used when this observation was made.	

(Measurement) Device	The device used to generate the observation data.	
Provides guide for interpretation + <i>Rule: Must have at least a low or a high or text</i>	Guidance on how to interpret the value by comparison to a normal or recommended range. Multiple reference ranges are interpreted as an "OR". In other words, to represent two distinct target populations, two `referenceRange` elements would be used.	
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	
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Low Range, if relevant	The value of the low bound of the reference range. The low bound of the reference range endpoint is inclusive of the value (e.g. reference range is ≥ 5 - ≤ 9). If the low bound is omitted, it is assumed to be meaningless (e.g. reference range is ≤ 2.3).	

High Range, if relevant	The value of the high bound of the reference range. The high bound of the reference range endpoint is inclusive of the value (e.g. reference range is ≥ 5 - ≤ 9). If the high bound is omitted, it is assumed to be meaningless (e.g. reference range is ≥ 2.3).	
Reference range qualifier	Codes to indicate the what part of the targeted reference population it applies to. For example, the normal or therapeutic range.	preferred
Reference range population	Codes to indicate the target population this reference range applies to. For example, a reference range may be based on the normal population or a particular sex or race. Multiple `appliesTo` are interpreted as an "AND" of the target populations. For example, to represent a target population of African American females, both a code of female and a code for African American would be used.	example
Applicable age range, if relevant	The age at which this reference range is applicable. This is a neonatal age (e.g. number of weeks at term) if the meaning says so.	
Text based reference range in an observation	Text based reference range in an observation which may be used when a quantitative range is not appropriate for an observation. An example would be a reference value of "Negative" or a list or table of "normals".	

Related resource that belongs to the Observation group	This observation is a group observation (e.g. a battery, a panel of tests, a set of vital sign measurements) that includes the target as a member of the group.	
Related measurements the observation is made from	The target resource that represents a measurement from which this observation value is derived. For example, a calculated anion gap or a fetal measurement based on an ultrasound image.	
Component results	Some observations have multiple component observations. These component observations are expressed as separate code value pairs that share the same attributes. Examples include systolic and diastolic component observations for blood pressure measurement and multiple component observations for genetics observations.	
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.	
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	

Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).	
Type of component observation (code / type)	Describes what was observed. Sometimes this is called the observation "code".	example
Actual component result	The information determined as a result of making the observation, if the information has a simple value.	
Why the component result is missing	Provides a reason why the expected value in the element Observation.component.value[x] is missing.	extensible

High, low, normal, etc.	A categorical assessment of an observation value. For example, high, low, normal.	extensible
Provides guide for interpretation of component result	Guidance on how to interpret the value by comparison to a normal or recommended range.	

Binding Description (Value Set Name)	Binding Value Set	RPS
		MS [0..*]
		R[1..1]
		NRT
		NRT
CommonLanguages	http://hl7.org/fhir/ValueSet/lang	NRT
		NRT

		NRT
		NRT

		NRT
		NRT
		NRT

		MS[0..*]
ObservationStatus	http://hl7.org/fhir/ValueSet/observation-status	R [1..1]
ObservationCategoryCodes	http://hl7.org/fhir/ValueSet/observation-category-codes	MS [0..*]
LOINCCodes	http://hl7.org/fhir/ValueSet/observation-loinc-codes	R [1..1]
		R [1..1]

		NR
		MS [0..1]
		R [1..1]

		MS [0..1]
		NR
		MS [0..1]
DataAbsentReason	http://hl7.org/fhir/ValueSet/data-absent-reasons	NR
ObservationInterpretationCodes	http://hl7.org/fhir/ValueSet/observation-interpretation	MS [0..*]
		NR
SNOMEDCTBodyStructures	http://hl7.org/fhir/ValueSet/body-structures	NR
ObservationMethods	http://hl7.org/fhir/ValueSet/observation-methods	MS [0..1]
		NR

		NR
		NR
		NRT
		NRT

		NRT
		NR

		NR
ObservationReferenceRangeMeaningCodes	http://hl7.org/fhir/ValueSet/reference-range-meaning-codes	NR
ObservationReferenceRangeAppliesToCodes	http://hl7.org/fhir/ValueSet/reference-range-applies-to-codes	NR
		NR
		NR

		MS [0..*]
		NR
		MS [0..*]
		NRT
		NRT

		NRT
LOINCCodes	http://hl7.org/fhir/ValueSet/observed	R [1..1]
		MS [0..1]
DataAbsentReason	http://hl7.org/fhir/ValueSet/data-absent-reason	NR

ObservationInterpretationCode S	http://hl7.org/fhir/ValueSet/observation-interprets	MS [0..*]
		NR

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FHIR Path	Min	Max	Must Support?	Data Type(s)
Patient	0	*		
Patient.id	0	1		string
Patient.meta	0	1		Meta
Patient.implicitRules	0	1		uri
Patient.language	0	1		code
Patient.text	0	1		Narrative

Patient.contained	0	*		Resource
Patient.extension	0	*		Extension

Patient.extension (race)	0	1	Y	(Complex) optional 'ombCategory', optional 'detailed' and a required 'text'. - 'ombCategory' component is optional, but allows for up to 5 races from ombCategory- race ValueSet (note this is denoted by the 0..5 cardinality on the 3.1.1 definition of us- core-race - o When present, the structure will always following a 'coding' datatype, as denoted by 'valueCoding' - 'detailed' component is also optional, but may be present an infinite number of times, each 'detailed' containing one of the 917 race codes - o When present, the structure will always following a 'coding' datatype, as denoted by 'valueCoding' - 'text' as required is required to be present, but there are no rules around this data beyond it'll be a string (ie it likely will be some combination of ombCategory and/or 'detailed', if
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Patient.extension (ethnicity)	0	1	Y	(Complex)
Patient.extension (sex at birth)	0	1	Y	code
Patient.extension (gender identity)	0	1		Extension { http://hl7.org/fhir/us/core/StructureDefinition/us-core-genderIdentity }

Patient.modifierExtension	0	*		Extension
Patient.identifier	1	*	Y	Identifier
Patient.identifier.id	0	1		string
Patient.identifier.extension	0	*		Extension
Patient.identifier.use	0	1		code
Patient.identifier.type	0	1		CodeableConcept

Patient.identifier.system	1	1	Y	uri
Patient.identifier.value	1	1	Y	string
Patient.identifier.period	0	1		Period
Patient.identifier.assigner	0	1		Reference(Organization)
Patient.active	0	1		boolean
Patient.name	1	*	Y	HumanName
Patient.name.id	0	1		string

Patient.name.extension	0	*		Extension
Patient.name.use	0	1		code
Patient.name.text	0	1		string
Patient.name.family	0	1	Y	string
Patient.name.given	0	*	Y	string
Patient.name.prefix	0	*		string
Patient.name.suffix	0	*		string
Patient.name.period	0	1		Period
Patient.telecom	0	*	Y	ContactPoint

Patient.telecom.id	0	1		string
Patient.telecom.extension	0	*		Extension
Patient.telecom.system	1	1	Y	code
Patient.telecom.value	1	1	Y	string
Patient.telecom.use	0	1	Y	code
Patient.telecom.rank	0	1		positiveInt
Patient.telecom.period	0	1		Period
Patient.gender	1	1	Y	code
Patient.birthDate	0	1	Y	date
Patient.deceased[x]	0	1		boolean dateTime
Patient.address	0	*	Y	Address
Patient.address.id	0	1		string

Patient.address.extension	0	*		Extension
Patient.address.use	0	1		code
Patient.address.type	0	1		code
Patient.address.text	0	1		string
Patient.address.line	0	*	Y	string
Patient.address.city	0	1	Y	string
Patient.address.district	0	1		string
Patient.address.state	0	1	Y	string
Patient.address.postalCode	0	1	Y	string
Patient.address.country	0	1		string
Patient.address.period	0	1	Y	Period
Patient.maritalStatus	0	1		CodeableConcept

Patient.multipleBirth[x]	0	1		boolean integer
Patient.photo	0	*		Attachment
Patient.contact	0	*		BackboneElement
Patient.contact.id	0	1		string
Patient.contact.extension	0	*		Extension

Patient.contact.modifierExtension	0	*		Extension
Patient.contact.relationship	0	*		CodeableConcept
Patient.contact.name	0	1		HumanName
Patient.contact.telecom	0	*		ContactPoint
Patient.contact.address	0	1		Address
Patient.contact.gender	0	1		code
Patient.contact.organization	0	1		Reference(Organization)

Patient.contact.period	0	1		Period
Patient.communication	0	*	Y	BackboneElement
Patient.communication.id	0	1		string
Patient.communication.extension	0	*		Extension

Patient.communication.modifierExtension	0	*		Extension
Patient.communication.language	1	1	Y	CodeableConcept
Patient.communication.preferred	0	1		boolean
Patient.generalPractitioner	0	*		Reference(Organization Practitioner PractitionerRole)
Patient.managingOrganization	0	1		Reference(Organization)
Patient.link	0	*		BackboneElement

Patient.link.id	0	1		string
Patient.link.extension	0	*		Extension
Patient.link.modifierExtension	0	*		Extension
Patient.link.other	1	1		Reference(Patient RelatedPerson)
Patient.link.type	1	1		code

FHIR Short Description	FHIR Definition
Information about an individual or animal receiving health care services	The US Core Patient Profile is based upon the core FHIR Patient Resource and designed to meet the applicable patient demographic data elements from the 2015 Edition Common Clinical Data Set.
Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.
Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.
A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.
Language of the resource content	The base language in which the resource is written.
Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.

Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.
Extension	An Extension

US Core Race Extension	Concepts classifying the person into a named category of humans sharing common history, traits, geographical origin or nationality. The race codes used to represent these concepts are based upon the [CDC Race and Ethnicity Code Set Version 1.0](http://www.cdc.gov/phn/resources/vocabulary/index.html) which includes over 900 concepts for representing race and ethnicity of which 921 reference race. The race concepts are grouped by and pre-mapped to the 5 OMB race categories: - American Indian or Alaska Native - Asian - Black or African American - Native Hawaiian or Other Pacific Islander - White.
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US Core ethnicity Extension	Concepts classifying the person into a named category of humans sharing common history, traits, geographical origin or nationality. The ethnicity codes used to represent these concepts are based upon the [CDC ethnicity and Ethnicity Code Set Version 1.0](http://www.cdc.gov/phn/resources/vocabulary/index.html) which includes over 900 concepts for representing race and ethnicity of which 43 reference ethnicity. The ethnicity concepts are grouped by and pre-mapped to the 2 OMB ethnicity categories: - Hispanic or Latino - Not Hispanic or Latino.
Extension	A code classifying the person's sex assigned at birth as specified by the [Office of the National Coordinator for Health IT (ONC)](https://www.healthit.gov/newsroom/about-onc).
Extension	An Extension

Extensions that cannot be ignored	May be used to <i>represent additional information that is not part of the basic definition of the resource</i> and that modifies the understanding of the element that contains it and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer is allowed to define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
An identifier for this patient	An identifier for this patient.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
usual official temp secondary old (If known)	The purpose of this identifier.
Description of identifier	A coded type for the identifier that can be used to determine which identifier to use for a specific purpose.

The namespace for the identifier valueExample General: http://www.acme.com/identifiers/patient	Establishes the namespace for the value - that is, a URL that describes a set values that are unique.
The value that is unique within the system.	The portion of the identifier typically relevant to the user and which is unique within the context of the system.
Time period when id is/was valid for use	Time period during which identifier is/was valid for use.
Organization that issued id (may be just text)	Organization that issued/manages the identifier.
Whether this patient's record is in active use	Whether this patient record is in active use. Many systems use this property to mark as non-current patients, such as those that have not been seen for a period of time based on an organization's business rules. It is often used to filter patient lists to exclude inactive patients Deceased patients may also be marked as inactive for the same reasons, but may be active for some time after death.
A name associated with the patient us-core-8: Either Patient.name.given and/or Patient.name.family SHALL be present or a Data Absent Reason Extension SHALL be present.	A name associated with the individual.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.

Additional content defined by implementations	May be <i>used to represent additional information that is not part of the basic definition of the element</i> . To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
usual official temp nickname anonymous old maiden	Identifies the purpose for this name.
Text representation of the full name	Specifies the entire name as it should be displayed e.g. on an application UI. This may be provided instead of or as well as the specific parts.
Family name (often called 'Surname')	The part of a name that links to the genealogy. In some cultures (e.g. Eritrea) the family name of a son is the first name of his father.
Given names (not always 'first'). Includes middle names This repeating element order: Given Names appear in the correct order for presenting the name	Given name.
Parts that come before the name This repeating element order: Prefixes appear in the correct order for presenting the name	Part of the name that is acquired as a title due to academic, legal, employment or nobility status, etc. and that appears at the start of the name.
Parts that come after the name This repeating element order: Suffixes appear in the correct order for presenting the name	Part of the name that is acquired as a title due to academic, legal, employment or nobility status, etc. and that appears at the end of the name.
Time period when name was/is in use	Indicates the period of time when this name was valid for the named person.
A contact detail for the individual	A contact detail (e.g. a telephone number or an email address) by which the individual may be contacted.

Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
phone fax email pager url sms other	Telecommunications form for contact point - what communications system is required to make use of the contact.
The actual contact point details	The actual contact point details, in a form that is meaningful to the designated communication system (i.e. phone number or email address).
home work temp old mobile - purpose of this contact point	Identifies the purpose for the contact point.
Specify preferred order of use (1 = highest)	Specifies a preferred order in which to use a set of contacts. ContactPoints with lower rank values are more preferred than those with higher rank values.
Time period when the contact point was/is in use	Time period when the contact point was/is in use.
male female other unknown	Administrative Gender - the gender that the patient is considered to have for administration and record keeping purposes.
The date of birth for the individual	The date of birth for the individual.
Indicates if the individual is deceased or not	Indicates if the individual is deceased or not.
An address for the individual	An address for the individual.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.

Additional content defined by implementations	May be <i>used to represent additional information that is not part of the basic definition of the element.</i> To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
home work temp old billing - purpose of this address	The purpose of this address.
home postal physical both	Distinguishes between physical addresses (those you can visit) and mailing addresses (e.g. PO Boxes and care-of addresses). Most addresses are both.
Text representation of the address	Specifies the entire address as it should be displayed e.g. on a postal label. This may be provided instead of or as well as the specific parts.
Street name, number, direction & P.O. Box etc. This repeating element order: The order in which lines should appear in an address label	This component contains the house number, apartment number, street name, street direction, P.O. Box number, delivery hints, and similar address information.
Name of city, town etc.	The name of the city, town, suburb, village or other community or delivery center.
District name (aka county)	The name of the administrative area (county).
Sub-unit of country (abbreviations ok)	Sub-unit of a country with limited sovereignty in a federally organized country. A code may be used if codes are in common use (e.g. US 2 letter state codes).
US Zip Codes	A postal code designating a region defined by the postal service.
Country (e.g. can be ISO 3166 2 or 3 letter code)	Country - a nation as commonly understood or generally accepted.
Time period when address was/is in use	Time period when address was/is in use.
Marital (civil) status of a patient	This field contains a patient's most recent marital (civil) status.

Whether patient is part of a multiple birth	Indicates whether the patient is part of a multiple (boolean) or indicates the actual birth order (integer).
Image of the patient	Image of the patient.
A contact party (e.g. guardian, partner, friend) for the patient	A contact party (e.g. guardian, partner, friend) for the patient.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be <i>used to represent additional information that is not part of the basic definition of the element</i> . To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
The kind of relationship	The nature of the relationship between the patient and the contact person.
A name associated with the contact person	A name associated with the contact person.
A contact detail for the person	A contact detail for the person, e.g. a telephone number or an email address.
Address for the contact person	Address for the contact person.
male female other unknown	Administrative Gender - the gender that the contact person is considered to have for administration and record keeping purposes.
Organization that is associated with the contact	Organization on behalf of which the contact is acting or for which the contact is working.

The period during which this contact person or organization is valid to be contacted relating to this patient	The period during which this contact person or organization is valid to be contacted relating to this patient.
A language which may be used to communicate with the patient about his or her health	A language which may be used to communicate with the patient about his or her health.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
The language which can be used to communicate with the patient about his or her health	The ISO-639-1 alpha 2 code in lower case for the language, optionally followed by a hyphen and the ISO-3166-1 alpha 2 code for the region in upper case; e.g. "en" for English, or "en-US" for American English versus "en-EN" for England English.
Language preference indicator	Indicates whether or not the patient prefers this language (over other languages he masters up a certain level).
Patient's nominated primary care provider	Patient's nominated care provider.
Organization that is the custodian of the patient record	Organization that is the custodian of the patient record.
Link to another patient resource that concerns the same actual person	Link to another patient resource that concerns the same actual patient.

Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to <i>represent additional information that is not part of the basic definition of the element.</i> To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
Extensions that cannot be ignored even if unrecognized	May be used to <i>represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element</i> in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
The other patient or related person resource that the link refers to	The other patient resource that the link refers to.
replaced-by replaces refer seealso	The type of link between this patient resource and another patient resource.

Binding Strength	Binding Description	Binding Value Set	cross-setting for all measures
			R [1..1]
			R [1..1]
			NRT
			NRT
preferred	A human language.	http://hl7.org/fhir/ValueSet/languages	NRT
			NRT

			NRT
			NR

	US Core Race Extension	http://hl7.org/fhir/us/core/StructureDefinition/us-core-race	MS[0...*]
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	US Core ethnicity Extension	http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity	MS[0..*]
required	Birth Sex	http://hl7.org/fhir/us/core/StructureDefinition/us-core-birthsex	MS [0..1]
			MS [0.. *]

			NRT
			R [1..*]
			NR
			NR
required	Identifier Use	http://hl7.org/fhir/ValueSet/identifier-use	MS[0..1]
extensible	Identifier Type Codes	http://hl7.org/fhir/ValueSet/identifier-type-codes	MS[0..1]

			NR
			R [1..1]
			MS [0..1]
			NR
			NR
			R [1..*]
			NR

			NR
required	NameUse	http://hl7.org/fhir/ValueSet/nar	MS[0..1]
			MS[0..1]
			MS[0..1]
			MS[0..*]
			MS[0..*]
			MS[0..*]
			MS[0..1]
			MS[0..*]

			NRT
			NRT
required	ContactPointSystem	http://hl7.org/fhir/ValueSet/contact-point-system	R [1..1]
			R [1..1]
required	ContactPointUse	http://hl7.org/fhir/ValueSet/contact-point-use	MS[0..1]
			MS[0..1]
			MS[0..1]
required	AdministrativeGender	http://hl7.org/fhir/ValueSet/administrative-gender	R [1..1]
			R [1..1]
			MS[0..1]
			MS[0..*]
			NR

			NR
required	AddressUse	http://hl7.org/fhir/ValueSet/addr-use	MS[0..1]
required	AddressType	http://hl7.org/fhir/ValueSet/addr-type	MS[0..1]
			MS[0..1]
			MS[0..*]
			MS[0..1]
			MS[0..1]
extensible	USPS Two Letter Alphabetic Codes	http://hl7.org/fhir/us/core/ValueSet/us-core-usps-state	MS[0..1]
			MS[0..1]
			MS[0..1]
			MS[0..1]
extensible	Marital Status Codes	http://hl7.org/fhir/ValueSet/marital-status	NR

			NR
			NR
			MS[0..*]
			NR
			NR

			NRT
extensible	The nature of the relationship between a patient and a contact person for that patient.	http://hl7.org/fhir/ValueSet/patient-contact	MS[0..*]
			MS[0..1]
			MS[0..*]
			MS[0..1]
required	The gender of a person used for administrative purposes.	http://hl7.org/fhir/ValueSet/administrative-gender 4.0.1	NR
			NR

			MS[0..1)
			MS[0..*]
			NR
			NR

			NRT
extensible		http://hl7.org/fhir/us/core/ValueSet	R [1..1]
			MS[0..1]
			NR
			NR
			MS[0..*]

			MS [0..*]
			MS [0..*]
			MS [0..*]
			R [1..1]
required	LinkType	http://hl7.org/fhir/ValueSet/link	R [1..1]

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FHIR Path	Min	Max	Must Support?	Data Type(s)
Procedure	0	*		
Procedure.id	0	1		string
Procedure.meta	0	1		Meta
Procedure.implicitRules	0	1		uri

Procedure.language	0	1		code
Procedure.text	0	1		Narrative

Procedure.contained	0	*		Resource
Procedure.extension	0	*		Extension
Procedure.modifierExtension	0	*		Extension

Procedure.identifier	0	*		Identifier
Procedure.instantiatesCanonical	0	*		canonical(PlanDefinition ActivityDefinition Measure OperationDefinition Questionnaire)
Procedure.instantiatesUri	0	*		uri
Procedure.basedOn	0	*		Reference(CarePlan ServiceRequest)
Procedure.partOf	0	*		Reference(Procedure Observation MedicationAdministration)

Procedure.status	1	1	Y	code
Procedure.statusReason	0	1		CodeableConcept
Procedure.category	0	1		CodeableConcept
Procedure.code	1	1	Y	CodeableConcept
Procedure.subject	1	1	Y	Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-patient)
Procedure.encounter	0	1		Reference(Encounter)

Procedure.performed[x]	1	1	Y	dateTime Period string Age Range
Procedure.recorder	0	1		Reference(Patient RelatedPerson Practitioner PractitionerRole)
Procedure.asserter	0	1		Reference(Patient RelatedPerson Practitioner PractitionerRole)
Procedure.performer	0	*		BackboneElement
Procedure.performer.id	0	1		string
Procedure.performer.extension	0	*		Extension

Procedure.performer.modifierExtension	0	*		Extension
Procedure.performer.function	0	1		CodeableConcept
Procedure.performer.actor	1	1		Reference(Practitioner PractitionerRole Organization Patient RelatedPerson Device)
Procedure.performer.onBehalfOf	0	1		Reference(Organization)
Procedure.location	0	1		Reference(Location)

Procedure.reasonCode	0	*		CodeableConcept
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Procedure.reasonReference	0	*		Reference(Condition Observation Procedure DiagnosticReport DocumentReference)
Procedure.bodySite	0	*		CodeableConcept
Procedure.outcome	0	1		CodeableConcept

Procedure.report	0	*		Reference(DiagnosticReport DocumentReference Composition)
Procedure.complication	0	*		CodeableConcept
Procedure.complicationDetail	0	*		Reference(Condition)
Procedure.followUp	0	*		CodeableConcept
Procedure.note	0	*		Annotation
Procedure.focalDevice	0	*		BackboneElement
Procedure.focalDevice.id	0	1		string
Procedure.focalDevice.extension	0	*		Extension

Procedure.focalDevice.modifierExtension	0	*		Extension
Procedure.focalDevice.action	0	1		CodeableConcept
Procedure.focalDevice.manipulated	1	1		Reference(Device)
Procedure.usedReference	0	*		Reference(Device Medication Substance)
Procedure.usedCode	0	*		CodeableConcept

FHIR Short Description	FHIR Definition
An action that is being or was performed on a patient	The US Core Condition Profile is based upon the core FHIR Procedure Resource and created to meet the 2015 Edition Common Clinical Data Set 'Procedures' requirements.
Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.
Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.
A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.

Language of the resource content	The base language in which the resource is written.
Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.

Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
Extensions that cannot be ignored	May be used to represent additional information that is not part of the basic definition of the resource and that modifies the understanding of the element that contains it and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer is allowed to define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).

External Identifiers for this procedure	Business identifiers assigned to this procedure by the performer or other systems which remain constant as the resource is updated and is propagated from server to server.
Instantiates FHIR protocol or definition	The URL pointing to a FHIR-defined protocol, guideline, order set or other definition that is adhered to in whole or in part by this Procedure.
Instantiates external protocol or definition	The URL pointing to an externally maintained protocol, guideline, order set or other definition that is adhered to in whole or in part by this Procedure.
A request for this procedure	A reference to a resource that contains details of the request for this procedure.
Part of referenced event	A larger event of which this particular procedure is a component or step.

preparation in-progress not-done on-hold stopped completed entered-in-error unknown	A code specifying the state of the procedure. Generally, this will be the in-progress or completed state.
Reason for current status	Captures the reason for the current state of the procedure.
Classification of the procedure	A code that classifies the procedure for searching, sorting and display purposes (e.g. "Surgical Procedure").
Identification of the procedure	The specific procedure that is performed. Use text if the exact nature of the procedure cannot be coded (e.g. "Laparoscopic Appendectomy").
Who the procedure was performed on	The person, animal or group on which the procedure was performed.
Encounter created as part of	The Encounter during which this Procedure was created or performed or to which the creation of this record is tightly associated.

When the procedure was performed	Estimated or actual date, date-time, period, or age when the procedure was performed. Allows a period to support complex procedures that span more than one date, and also allows for the length of the procedure to be captured.
Who recorded the procedure	Individual who recorded the record and takes responsibility for its content.
Person who asserts this procedure	Individual who is making the procedure statement.
The people who performed the procedure	Limited to "real" people rather than equipment.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
Type of performance	Distinguishes the type of involvement of the performer in the procedure. For example, surgeon, anaesthetist, endoscopist.
The reference to the practitioner	The practitioner who was involved in the procedure.
Organization the device or practitioner was acting for	The organization the device or practitioner was acting on behalf of.
Where the procedure happened	The location where the procedure actually happened. E.g. a newborn at home, a tracheostomy at a restaurant.

Coded reason procedure performed	The coded reason why the procedure was performed. This may be a coded entity of some type, or may simply be present as text.
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The justification that the procedure was performed	The justification of why the procedure was performed.
Target body sites	Detailed and structured anatomical location information. Multiple locations are allowed - e.g. multiple punch biopsies of a lesion.
The result of procedure	The outcome of the procedure - did it resolve the reasons for the procedure being performed?

Any report resulting from the procedure	This could be a histology result, pathology report, surgical report, etc.
Complication following the procedure	Any complications that occurred during the procedure, or in the immediate post-performance period. These are generally tracked separately from the notes, which will typically describe the procedure itself rather than any 'post procedure' issues.
A condition that is a result of the procedure	Any complications that occurred during the procedure, or in the immediate post-performance period.
Instructions for follow up	If the procedure required specific follow up - e.g. removal of sutures. The follow up may be represented as a simple note or could potentially be more complex, in which case the CarePlan resource can be used.
Additional information about the procedure	Any other notes and comments about the procedure.
Manipulated, implanted, or removed device	A device that is implanted, removed or otherwise manipulated (calibration, battery replacement, fitting a prosthesis, attaching a wound-vac, etc.) as a focal portion of the Procedure.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
Kind of change to device	The kind of change that happened to the device during the procedure.
Device that was changed	The device that was manipulated (changed) during the procedure.
Items used during procedure	Identifies medications, devices and any other substance used as part of the procedure.
Coded items used during the procedure	Identifies coded items that were used as part of the procedure.

Comments	Binding Strength	Binding Description	Binding Value Set
The only time that a resource does not have an id is when it is being submitted to the server using a create operation.			
Asserting this rule set restricts the content to be only understood by a limited set of trading partners. This inherently limits the usefulness of the data in the long term. However, the existing health ecosystem is highly fractured, and not yet ready to define, collect, and exchange data in a generally computable sense. Wherever possible, implementers and/or specification writers should avoid using this element. Often, when used, the URL is a reference to an implementation guide that defines these special rules as part of it's narrative along with other profiles, value sets, etc.			

Language is provided to support indexing and accessibility (typically, services such as text to speech use the language tag). The html language tag in the narrative applies to the narrative. The language tag on the resource may be used to specify the language of other presentations generated from the data in the resource. Not all the content has to be in the base language. The Resource.language should not be assumed to apply to the narrative automatically. If a language is specified, it should it also be specified on the div element in the html (see rules in HTML5 for information about the relationship between xml:lang and the html lang attribute).	preferred	A human language.	http://hl7.org/fhir/
Contained resources do not have narrative. Resources that are not contained SHOULD have a narrative. In some cases, a resource may only have text with little or no additional discrete data (as long as all minOccurs=1 elements are satisfied). This may be necessary for data from legacy systems where information is captured as a "text blob" or where text is additionally entered raw or narrated and encoded information is added later.			

This should never be done when the content can be identified properly, as once identification is lost, it is extremely difficult (and context dependent) to restore it again. Contained resources may have profiles and tags in their meta elements, but SHALL NOT have security labels.			
There can be no stigma associated with the use of extensions by any application, project, or standard - regardless of the institution or jurisdiction that uses or defines the extensions. The use of extensions is what allows the FHIR specification to retain a core level of simplicity for everyone.			
There can be no stigma associated with the use of extensions by any application, project, or standard - regardless of the institution or jurisdiction that uses or defines the extensions. The use of extensions is what allows the FHIR specification to retain a core level of simplicity for everyone.			

This is a business identifier, not a resource identifier (see [discussion](http://hl7.org/fhir/R4/resource.html#identifiers)). It is best practice for the identifier to only appear on a single resource instance, however business practices may occasionally dictate that multiple resource instances with the same identifier can exist - possibly even with different resource types. For example, multiple Patient and Person resource instances might share the same social insurance number.			
This might be an HTML page, PDF, etc. or could just be a non-resolvable URI identifier.			
The MedicationAdministration resource has a partOf reference to Procedure, but this is not a circular reference. For example, the anesthesia MedicationAdministration is part of the surgical Procedure (MedicationAdministration.partOf = Procedure). For example, the procedure to insert the IV port for an IV medication administration is part of the medication administration (Procedure.partOf = MedicationAdministration).			

The "unknown" code is not to be used to convey other statuses. The "unknown" code should be used when one of the statuses applies, but the authoring system doesn't know the current state of the procedure. This element is labeled as a modifier because the status contains codes that mark the resource as not currently valid.	required		http://hl7.org/fhir/
This is generally only used for "exception" statuses such as "not-done", "suspended" or "aborted". The reason for performing the event at all is captured in reasonCode, not here.	example	A code that identifies the reason a procedure was not performed.	http://hl7.org/fhir/
	example	A code that classifies a procedure for searching, sorting and display purposes.	http://hl7.org/fhir/
	extensible	Codes describing the type of Procedure	https://hl7.org/fhir/
This will typically be the encounter the event occurred within, but some activities may be initiated prior to or after the official completion of an encounter but still be tied to the context of the encounter.			

Age is generally used when the patient reports an age at which the procedure was performed. Range is generally used when the patient reports an age range when the procedure was performed, such as sometime between 20-25 years old. dateTime supports a range of precision due to some procedures being reported as past procedures that might not have millisecond precision while other procedures performed and documented during the encounter might have more precise UTC timestamps with timezone.			
There can be no stigma associated with the use of extensions by any application, project, or standard - regardless of the institution or jurisdiction that uses or defines the extensions. The use of extensions is what allows the FHIR specification to retain a core level of simplicity for everyone.			

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	example	A code that identifies the role of a performer of the procedure.	http://hl7.org/fhir/ValueSet/performer-role

Use Procedure.reasonCode when a code sufficiently describes the reason. Use Procedure.reasonReference when referencing a resource, which allows more information to be conveyed, such as onset date. Procedure.reasonCode and Procedure.reasonReference are not meant to be duplicative. For a single reason, either Procedure.reasonCode or Procedure.reasonReference can be used. Procedure.reasonCode may be a summary code, or Procedure.reasonReference may be used to reference a very precise definition of the reason using Condition Observation Procedure DiagnosticReport DocumentReference. Both Procedure.reasonCode and Procedure.reasonReference can be used if they are describing different reasons for the procedure.	example	A code that identifies the reason a procedure is required.	http://hl7.org/fhir/
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It is possible for a procedure to be a reason (such as C-Section) for another procedure (such as an epidural). Other examples include endoscopy for dilatation and biopsy (a combination of diagnostic and therapeutic use). Use Procedure.reasonCode when a code sufficiently describes the reason. Use Procedure.reasonReference when referencing a resource, which allows more information to be conveyed, such as onset date. Procedure.reasonCode and Procedure.reasonReference are not meant to be duplicative. For a single reason, either Procedure.reasonCode or Procedure.reasonReference can be used. Procedure.reasonCode may be a summary code, or Procedure.reasonReference may be used to reference a very precise definition of the reason using Condition Observation Procedure DiagnosticReport DocumentReference. Both Procedure.reasonCode and Procedure.reasonReference can be used if they are describing different reasons for the procedure.			
If the use case requires attributes from the BodySite resource (e.g. to identify and track separately) then use the standard extension [procedure-targetbodystructure] (http://hl7.org/fhir/R4/extension-procedure-targetbodystructure.html).	example	Codes describing anatomical locations. May include laterality.	http://hl7.org/fhir/
If outcome contains narrative text only, it can be captured using the CodeableConcept.text.	example	An outcome of a procedure - whether it was resolved or otherwise.	http://hl7.org/fhir/ValueSet/procedure-outcome

There could potentially be multiple reports - e.g. if this was a procedure which took multiple biopsies resulting in a number of anatomical pathology reports.			
If complications are only expressed by the narrative text, they can be captured using the CodeableConcept.text.	example	Codes describing complications that resulted from a procedure.	http://hl7.org/fhir/ValueSet/condition-code
	example	Specific follow up required for a procedure e.g. removal of sutures.	http://hl7.org/fhir/ValueSet/procedure-followup
There can be no stigma associated with the use of extensions by any application, project, or standard - regardless of the institution or jurisdiction that uses or defines the extensions. The use of extensions is what allows the FHIR specification to retain a core level of simplicity for everyone.			

There can be no stigma associated with the use of extensions by any application, project, or standard - regardless of the institution or jurisdiction that uses or defines the extensions. The use of extensions is what allows the FHIR specification to retain a core level of simplicity for everyone.			
	preferred	A kind of change that happened to the device during the procedure.	http://hl7.org/fhir/
For devices actually implanted or removed, use Procedure.device.			
For devices actually implanted or removed, use Procedure.device.	example	Codes describing items used during a procedure.	http://hl7.org/fhir/

RPS
MS [0..*]
R [1..1]
NRT
NRT

NRT

NRT

NRT

NRT

NRT

NRT

NR

NR

NR

NR

R [1..1]
NR
NR
R [1..1]
R [1..1]
MS [0..1]

R [1..1]
NR
NR
NR
NRT
NRT

NRT

NR

NR

NR

MS [0..1]

NR

NR

NR

NR

NR

NR

NR

NR	
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NR

NR

NRT	
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NRT

NRT

NR

NR

NR

NR

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FHIR Path	Min	Max	Data Type(s)
ServiceRequest	0	*	
ServiceRequest.id	0	1	id
ServiceRequest.meta	0	1	Meta
ServiceRequest.implicitRules	0	1	uri
ServiceRequest.language	0	1	code
ServiceRequest.text	0	1	Narrative
ServiceRequest.contained	0	*	Resource

ServiceRequest.extension	0	*	Extension
ServiceRequest.modifierExtension	0	*	Extension
ServiceRequest.identifier	0	*	Identifier
ServiceRequest.instantiatesCanonical	0	*	canonical(ActivityDefinition PlanDefinition)
ServiceRequest.instantiatesUri	0	*	uri

ServiceRequest.basedOn	0	*	Reference(CarePlan ServiceRequest MedicationRequest)
ServiceRequest.replaces	0	*	Reference(ServiceRequest)
ServiceRequest.requisition	0	1	Identifier
ServiceRequest.status	1	1	code
ServiceRequest.intent	1	1	code
ServiceRequest.category	0	*	CodeableConcept
ServiceRequest.priority	0	1	code
ServiceRequest.doNotPerform	0	1	boolean
ServiceRequest.code	0	1	CodeableConcept
ServiceRequest.orderDetail	0	*	CodeableConcept

ServiceRequest.quantity[x]	0	1	Quantity RatioRange
ServiceRequest.subject	1	1	Reference(Patient Group Location Device)
ServiceRequest.encounter	0	1	Reference(Encounter)
ServiceRequest.occurrence[x]	0	1	dateTime Period Timing
ServiceRequest.asNeeded[x]	0	1	boolean CodeableConcept
ServiceRequest.authoredOn	0	1	dateTime
ServiceRequest.requester	0	1	Reference(Practitioner PractitionerRole Organization Patient RelatedPerson Device)
ServiceRequest.performerType	0	1	CodeableConcept
ServiceRequest.performer	0	*	Reference(Practitioner PractitionerRole Organization CareTeam HealthcareService Patient Device RelatedPerson)
ServiceRequest.locationCode	0	*	CodeableConcept

ServiceRequest.locationReference	0	*	Reference(Location)
ServiceRequest.reasonCode	0	*	CodeableConcept
ServiceRequest.reasonReference	0	*	Reference(Condition Observation DiagnosticReport DocumentReference)
ServiceRequest.insurance	0	*	Reference(Coverage ClaimResponse)
ServiceRequest.supportingInfo	0	*	Reference(Resource)
ServiceRequest.specimen	0	*	Reference(Specimen)
ServiceRequest.bodySite	0	*	CodeableConcept
ServiceRequest.note	0	*	Annotation
ServiceRequest.patientInstruction	0	1	string
ServiceRequest.relevantHistory	0	*	Reference(Provenance)

FHIR Short Description	FHIR Definition	Binding Strength
A request for a service to be performed	A record of a request for service such as diagnostic investigations, treatments, or operations to be performed.	
Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.	
Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.	
A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.	
Language of the resource content	The base language in which the resource is written.	preferred
Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.	
Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.	

Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.	
Extensions that cannot be ignored	May be used to represent additional information that is not part of the basic definition of the resource and that modifies the understanding of the element that contains it and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer is allowed to define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).	
Identifiers assigned to this order	Identifiers assigned to this order instance by the orderer and/or the receiver and/or order fulfiller.	
Instantiates FHIR protocol or definition	The URL pointing to a FHIR-defined protocol, guideline, orderset or other definition that is adhered to in whole or in part by this ServiceRequest.	
Instantiates external protocol or definition	The URL pointing to an externally maintained protocol, guideline, orderset or other definition that is adhered to in whole or in part by this ServiceRequest.	

What request fulfills	Plan/proposal/order fulfilled by this request.	
What request replaces	The request takes the place of the referenced completed or terminated request(s).	
Composite Request ID	A shared identifier common to all service requests that were authorized more or less simultaneously by a single author, representing the composite or group identifier.	
draft active on-hold revoked completed entered-in-error unknown	The status of the order.	required
proposal plan directive order original-order reflex-order filler-order instance-order option	Whether the request is a proposal, plan, an original order or a reflex order.	required
Classification of service	A code that classifies the service for searching, sorting and display purposes (e.g. "Surgical Procedure").	example
routine urgent asap stat	Indicates how quickly the ServiceRequest should be addressed with respect to other requests.	required
True if service/procedure should not be performed	Set this to true if the record is saying that the service/procedure should NOT be performed.	
What is being requested/ordered	A code that identifies a particular service (i.e., procedure, diagnostic investigation, or panel of investigations) that have been requested.	example
Additional order information	Additional details and instructions about the how the services are to be delivered. For example, and order for a urinary catheter may have an order detail for an external or indwelling catheter, or an order for a bandage may require additional instructions specifying how the bandage should be applied.	example

Service amount	An amount of service being requested which can be a quantity (for example \$1,500 home modification), a ratio (for example, 20 half day visits per month), or a range (2.0 to 1.8 Gy per fraction).	
Individual or Entity the service is ordered for	On whom or what the service is to be performed. This is usually a human patient, but can also be requested on animals, groups of humans or animals, devices such as dialysis machines, or even locations (typically for environmental scans).	
Encounter in which the request was created	An encounter that provides additional information about the healthcare context in which this request is made.	
When service should occur	The date/time at which the requested service should occur.	
Preconditions for service	If a CodeableConcept is present, it indicates the pre-condition for performing the service. For example "pain", "on flare-up", etc.	example
Date request signed	When the request transitioned to being actionable.	
Who/what is requesting service	The individual who initiated the request and has responsibility for its activation.	
Performer role	Desired type of performer for doing the requested service.	example
Requested performer	The desired performer for doing the requested service. For example, the surgeon, dermatopathologist, endoscopist, etc.	
Requested location	The preferred location(s) where the procedure should actually happen in coded or free text form. E.g. at home or nursing day care center.	example

Requested location	A reference to the the preferred location(s) where the procedure should actually happen. E.g. at home or nursing day care center.	
Explanation/Justification for procedure or service	An explanation or justification for why this service is being requested in coded or textual form. This is often for billing purposes. May relate to the resources referred to in `supportingInfo`.	example
Explanation/Justification for service or service	Indicates another resource that provides a justification for why this service is being requested. May relate to the resources referred to in `supportingInfo`.	
Associated insurance coverage	Insurance plans, coverage extensions, pre-authorizations and/or pre-determinations that may be needed for delivering the requested service.	
Additional clinical information	Additional clinical information about the patient or specimen that may influence the services or their interpretations. This information includes diagnosis, clinical findings and other observations. In laboratory ordering these are typically referred to as "ask at order entry questions (AOEs)". This includes observations explicitly requested by the producer (filler) to provide context or supporting information needed to complete the order. For example, reporting the amount of inspired oxygen for blood gas measurements.	
Procedure Samples	One or more specimens that the laboratory procedure will use.	
Location on Body	Anatomic location where the procedure should be performed. This is the target site.	example
Comments	Any other notes and comments made about the service request. For example, internal billing notes.	
Patient or consumer-oriented instructions	Instructions in terms that are understood by the patient or consumer.	
Request provenance	Key events in the history of the request.	

Binding Description	Binding Value Set	RPS
		MS [0..*]
		R [1..1]
		NRT
		NRT
Common Languages	http://hl7.org/fhir/ValueSet/language	NRT
		NRT
		NRT

		NRT
		NRT
		NRT
		NR
		NR

		NR
		NR
		NR
RequestStatus	http://hl7.org/fhir/ValueSet/request-status	R [1..1]
RequestIntent	http://hl7.org/fhir/ValueSet/request-intent	R [1..1]
Service Request Category Codes	http://hl7.org/fhir/ValueSet/service-request-category-codes	MS [0..*]
Request priority	http://hl7.org/fhir/ValueSet/request-priority	MS [0..1]
		MS [0..1]
Procedure Codes (SNOMED CT)	http://hl7.org/fhir/ValueSet/procedure-codes	MS [0..1]
Service Request Order Details Codes	https://hl7.org/fhir/R4/valueset-service-request-order-details-codes	NR

		NR
		R [1..1]
		MS [0..1]
		MS [0..1]
SNOMED CT Medication As Needed Reason Codes	http://hl7.org/fhir/ValueSet/ medication-as-needed-reason	MS [0..1]
		R [1..1]
		NR
Participant Roles	http://terminology.hl7.org/ ValueSet/action-participant-role	NR
		NR
V3 Value SetServiceDelivery LocationRoleType	http://terminology.hl7.org/ValueSet/action-participant-role	NR

		NR
Procedure Reason Codes	http://hl7.org/fhir/ValueSet/procedure-reason-codes	NR
		MS [0..*]
		NR
		NR
		MS [0..*]
SNOMED CT Body Structures	http://hl7.org/fhir/ValueSet/body-site	NR
		NR
		NR
		NR

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FHIR Path	Min	Max	Data Type(s)
Specimen	0	*	
Specimen.id	0	1	id
Specimen.meta	0	1	Meta
Specimen.implicitRules	0	1	uri
Specimen.language	0	1	code
Specimen.text	0	1	Narrative
Specimen.contained	0	*	Resource
Specimen.extension	0	*	Extension

Specimen.modifierExtension	0	*	Extension
Specimen.identifier	0	*	Identifier
Specimen.accessionIdentifier	0	1	Identifier
Specimen.status	0	1	code
Specimen.type	0	1	CodeableConcept
Specimen.subject	0	1	Reference(Patient Group Device Substance Location)
Specimen.receivedTime	0	1	dateTime
Specimen.parent	0	*	Reference(Specimen)
Specimen.request	0	*	Reference(ServiceReq uest)
Specimen.collection	0	1	BackboneElement

Specimen.collection.id	0	1	string
Specimen.collection.extension	0	*	Extension
Specimen.collection.modifierExtension	0	*	Extension
Specimen.collection.collector	0	1	Reference(Practitioner PractitionerRole)
Specimen.collection.collected[x]	0	1	dateTime Period
Specimen.collection.duration	0	1	Duration
Specimen.collection.quantity	0	1	Quantity {SimpleQuantity}
Specimen.collection.method	0	1	CodeableConcept

Specimen.collection.bodySite	0	1	CodeableConcept
Specimen.collection.fastingStatus[x]	0	1	CodeableConcept Duration
Specimen.processing	0	*	BackboneElement
Specimen.processing.id	0	1	string
Specimen.processing.extension	0	*	Extension
Specimen.processing.modifierExtension	0	*	Extension
Specimen.processing.description	0	1	string
Specimen.processing.procedure	0	1	CodeableConcept

Specimen.processing.additive	0	*	Reference(Substance)
Specimen.processing.time[x]	0	1	dateTime Period
Specimen.container	0	*	BackboneElement
Specimen.container.id	0	1	string
Specimen.container.extension	0	*	Extension
Specimen.container.modifierExtension	0	*	Extension
Specimen.container.identifier	0	*	Identifier
Specimen.container.description	0	1	string

Specimen.container.type	0	1	CodeableConcept
Specimen.container.capacity	0	1	Quantity {SimpleQuantity}
Specimen.container.specimenQuantity	0	1	Quantity {SimpleQuantity}
Specimen.container.additive[x]	0	1	CodeableConcept Reference(Substance)
Specimen.condition	0	*	CodeableConcept
Specimen.note	0	*	Annotation

FHIR Short Description	FHIR Definition
Sample for analysis	A sample to be used for analysis.
Logical id of this artifact	The logical id of the resource, as used in the URL for the resource. Once assigned, this value never changes.
Metadata about the resource	The metadata about the resource. This is content that is maintained by the infrastructure. Changes to the content might not always be associated with version changes to the resource.
A set of rules under which this content was created	A reference to a set of rules that were followed when the resource was constructed, and which must be understood when processing the content. Often, this is a reference to an implementation guide that defines the special rules along with other profiles etc.
Language of the resource content	The base language in which the resource is written.
Text summary of the resource, for human interpretation	A human-readable narrative that contains a summary of the resource and can be used to represent the content of the resource to a human. The narrative need not encode all the structured data, but is required to contain sufficient detail to make it "clinically safe" for a human to just read the narrative. Resource definitions may define what content should be represented in the narrative to ensure clinical safety.
Contained, inline Resources	These resources do not have an independent existence apart from the resource that contains them - they cannot be identified independently, and nor can they have their own independent transaction scope.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the resource. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.

Extensions that cannot be ignored	May be used to represent additional information that is not part of the basic definition of the resource and that modifies the understanding of the element that contains it and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer is allowed to define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
External Identifier	Id for specimen.
Identifier assigned by the lab	The identifier assigned by the lab when accessioning specimen(s). This is not necessarily the same as the specimen identifier, depending on local lab procedures.
available unavailable unsatisfactory entered-in-error	The availability of the specimen.
Kind of material that forms the specimen	The kind of material that forms the specimen.
Where the specimen came from. This may be from patient(s), from a location (e.g., the source of an environmental sample), or a sampling of a substance or a device	Where the specimen came from. This may be from patient(s), from a location (e.g., the source of an environmental sample), or a sampling of a substance or a device.
The time when specimen was received for processing	Time when specimen was received for processing or testing.
Specimen from which this specimen originated	Reference to the parent (source) specimen which is used when the specimen was either derived from or a component of another specimen.
Why the specimen was collected	Details concerning a service request that required a specimen to be collected.
Collection details	Details concerning the specimen collection.

Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
Who collected the specimen	Person who collected the specimen.
Collection time	Time when specimen was collected from subject - the physiologically relevant time.
How long it took to collect specimen	The span of time over which the collection of a specimen occurred.
The quantity of specimen collected	The quantity of specimen collected; for instance the volume of a blood sample, or the physical measurement of an anatomic pathology sample.
Technique used to perform collection	A coded value specifying the technique that is used to perform the procedure.

Anatomical collection site	Anatomical location from which the specimen was collected (if subject is a patient). This is the target site. This element is not used for environmental specimens.
Whether or how long patient abstained from food and/or drink	Abstinence or reduction from some or all food, drink, or both, for a period of time prior to sample collection.
Processing and processing step details	Details concerning processing and processing steps for the specimen.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
Textual description of procedure	Textual description of procedure.
Indicates the treatment step applied to the specimen	A coded value specifying the procedure used to process the specimen.

Material used in the processing step	Material used in the processing step.
Date and time of specimen processing	A record of the time or period when the specimen processing occurred. For example the time of sample fixation or the period of time the sample was in formalin.
Direct container of specimen (tube/slide, etc.)	The container holding the specimen. The recursive nature of containers; i.e. blood in tube in tray in rack is not addressed here.
Unique id for inter-element referencing	Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.
Additional content defined by implementations	May be used to represent additional information that is not part of the basic definition of the element. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension.
Extensions that cannot be ignored even if unrecognized	May be used to represent additional information that is not part of the basic definition of the element and that modifies the understanding of the element in which it is contained and/or the understanding of the containing element's descendants. Usually modifier elements provide negation or qualification. To make the use of extensions safe and manageable, there is a strict set of governance applied to the definition and use of extensions. Though any implementer can define an extension, there is a set of requirements that SHALL be met as part of the definition of the extension. Applications processing a resource are required to check for modifier extensions. Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).
Id for the container	Id for container. There may be multiple; a manufacturer's bar code, lab assigned identifier, etc. The container ID may differ from the specimen id in some circumstances.
Textual description of the container	Textual description of the container.

Kind of container directly associated with specimen	The type of container associated with the specimen (e.g. slide, aliquot, etc.).
Container volume or size	The capacity (volume or other measure) the container may contain.
Quantity of specimen within container	The quantity of specimen in the container; may be volume, dimensions, or other appropriate measurements, depending on the specimen type.
Additive associated with container	Introduced substance to preserve, maintain or enhance the specimen. Examples: Formalin, Citrate, EDTA.
State of the specimen	A mode or state of being that describes the nature of the specimen.
Comments	To communicate any details or issues about the specimen or during the specimen collection. (for example: broken vial, sent with patient, frozen).

Binding Strength	Binding Description	Binding Value Set	RPS
			MS [0..*]
			R [1..1]
			NRT
			NRT
preferred	Common Languages	http://hl7.org/fhir/ValueSet	NRT
			NRT
			NRT
			NRT

			NRT
			MS [0..*]
			MS [0..1]
required	SpecimenStatus	http://hl7.org/fhir/ValueSet	MS[0..1]
example	V2 Specimen Type	http://terminology.hl7.org	R [1..1]
			MS [0..1]
			NR
			NR
			NR
			R [1..1]

			NRT
			NRT
			NRT
			NR
			R [1..1]
			NR
			NR
example	FHIR Specimen Collection Method	http://hl7.org/fhir/ValueSet	NR

example	SNOMED CT Body Structures	http://hl7.org/fhir/R4/valueset-specimen-processing-procedure.html	R [1..1]
extensible	v2 Relevant Clinical Information	http://terminology.hl7.org/ValueSetSpecimenProcessingProcedure	NR
			NR
			NRT
			NRT
			NRT
			NR
example	Specimen processing procedure	https://hl7.org/fhir/R4/valueset-specimen-processing-procedure.html	NR

[illegible]

example	Specimen container	http://hl7.org/fhir/ValueSet	NR
			NR
			NR
example	v2 Additive	http://terminology.hl7.org	NR
extensible	v2 Specimen Condition	http://terminology.hl7.org	NR
			NR

[Back to TOC](#)

Valueset Name	Canonical URL	Description
Discharge disposition	http://terminology.hl7.org/ValueSet/encounter-discharge-disposition	This value set defines a set of codes that can be used to where the patient left the hospital.
Inpatient, Emergency, and Observation Locations	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1046.265	Set of codes that describe locations within a hospital
Encounter Inpatient	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.666.5.307	The purpose of this value set is to represent concepts of inpatient hospitalization encounters.
Observation Services	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1146.1142	The purpose of this value set is to represent concepts for encounters for observation in the inpatient setting.
COVID_19 (Tests for SARS_CoV_2 Nucleic Acid)	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1146.1142	
COVID_19 (Tests for SARS_CoV_2 Antigen)	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1146.1158	
Influenza (Tests for influenza A or B virus Nucleic Acid)	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1146.336	
Influenza (Tests for influenza A or B virus Antigen)	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1146.337	

RSV (Tests for RSV Antigen)	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1146.1311
RSV (Tests for RSV Nucleic Acid)	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1146.1312
Baricitinib	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.200.110.102.2046
Anakinra	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.200.110.102.2054
Sarilumab	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.200.110.102.2084
COVID19 RxNorm Value Set for Tocilizumab	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.200.110.102.2087
Casirivimab	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.200.110.102.2097
Imdevimab	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.200.110.102.2098
Bamlanivimab	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.200.110.102.2099
Etesevimab	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.200.110.102.2100
Sotrovimab	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.200.110.102.2101

Tofacitinib	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.2.00.110.102.2102
Casirivimab / Imdevimab	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.2.00.110.102.2103
Molnupiravir	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.2.00.110.102.2119
Remdesivir	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.2.00.110.102.2081
Nirmatrelvir / Ritonavir	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.2.00.110.102.2104
Bebtelovimab	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.2.00.110.102.2105
Baloxavir	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1190.85
Peramivir	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1190.86
Zanamivir	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113762.1.4.1190.87
Oseltamivir	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.3.3616.2.00.110.102.2078
Transmission Based Precaution Types	http://cts.nlm.nih.gov/fhir/ValueSet/2.16.840.1.113883.10.20.22.5.300

Multiple Code Systems?	CodeSystem Used	Measures Used In
No	http://terminology.hl7.org/CodeSystem/discharge-disposition	Hypo, RPS
No	https://www.cdc.gov/nhsn/cdaportal/terminology/codesystem/hsloc.html	Hypo, CDI/HOB, RPS
No	http://snomed.info/sct	Hypo, CDI/HOB, RPS
No	http://snomed.info/sct	Hypo, CDI/HOB, RPS
No	http://loinc.org	RPS
No	http://loinc.org	RPS
No	http://loinc.org	RPS
No	http://loinc.org	RPS

[illegible]

No	http:// www.nlm.nih.gov/ research/umls/ rxnorm	RPS
No	http:// www.nlm.nih.gov/ research/umls/ rxnorm	RPS
No	http:// www.nlm.nih.gov/ research/umls/ rxnorm	RPS
No	http:// www.nlm.nih.gov/ research/umls/ rxnorm	RPS
No	http:// www.nlm.nih.gov/ research/umls/ rxnorm	RPS
No	http:// www.nlm.nih.gov/ research/umls/ rxnorm	RPS
No	http:// www.nlm.nih.gov/ research/umls/ rxnorm	RPS
No	http:// www.nlm.nih.gov/ research/umls/ rxnorm	RPS
No	http:// www.nlm.nih.gov/ research/umls/ rxnorm	RPS
No	http://snomed.info/ sct	RPS

Used in Data Returned from Site	Resource/Element Used in
---------------------------------	--------------------------

None	Encounter.hospitalization.dischargeDisposition
------	--

None	Location.type
------	---------------

None	Encounter.type
------	----------------

None	Encounter.type
------	----------------

Observation.code,
DiagnosticReport.code,
ServiceRequest.code

Observation.code,
DiagnosticReport.code,
ServiceRequest.code

Observation.code,
DiagnosticReport.code,
ServiceRequest.code

Observation.code,
DiagnosticReport.code,
ServiceRequest.code

Observation.code,
DiagnosticReport.code,
ServiceRequest.code

Observation.code,
DiagnosticReport.code,
ServiceRequest.code

[illegible]

[illegible]

Reference Name

Clinical Impression
RelatedPerson
RelatedPerson
Related Person
Contract
US Core Practitioner
ImmunizationRecommendation
Account
CarePlan
DeviceRequest
ImmunizationRecommendation
NutritionOrder
MedicationDispense
MedicationStatement
Immunization
ImagingStudy
Practitioner
PractitionerRole
CareTeam
RelatedPerson
DeviceMetric
QuestionnaireResponse
MolecularSequence
DocumentReference
ImagingStudy
Media
QuestionnaireResponse
MolecularSequence
Endpoint
Group
Practitioner
PractitionerRole
RelatedPerson
Provenance
CarePlan
ImmunizationRecommendation
NutritionOrder
MedicationDispense
MedicationStatement
Immunization
ImagingStudy
QuestionnaireResponse
MolecularSequence
CarePlan
Group
Practitioner
PractitionerRole
RelatedPerson
Practitioner

PractitionerRole
CareTeam
HealthcareService
RelatedPerson
ClaimResponse
Provenance
Substance

FHIR Data Element

Condition.stage.assessment
Coverage.policyHolder
Coverage.subscriber
Coverage.payor
Coverage.contract
Encounter.participant.individual
Encounter.reasonReference
Encounter.account
Observation.basedOn (Lab Result Observation)
Observation.basedOn (Lab Result Observation)
Observation.basedOn (Lab Result Observation)
Observation.basedOn (Lab Result Observation)
Observation.partOf (Lab Result Observation)
Observation.partOf (Lab Result Observation)
Observation.partOf (Lab Result Observation)
Observation.partOf (Lab Result Observation)
Observation.performer (Lab Result Observation)
Observation.performer (Lab Result Observation)
Observation.performer (Lab Result Observation)
Observation.performer (Lab Result Observation)
Observation.device (Lab Result Observation)
Observation.hasMember (Lab Result Observation)
Observation.hasMember (Lab Result Observation)
Observation.derivedFrom (Lab Result Observation)
Observation.derivedFrom (Lab Result Observation)
Observation.derivedFrom (Lab Result Observation)
Observation.derivedFrom (Lab Result Observation)
Observation.derivedFrom (Lab Result Observation)
Location.endpoint
MedicationAdministration.subject
MedicationAdministration.performer.actor
MedicationAdministration.performer.actor
MedicationAdministration.performer.actor
MedicationAdministration.eventHistory
Observation.basedOn (Observation-Vital Signs R4)
Observation.basedOn (Observation-Vital Signs R4)
Observation.basedOn (Observation-Vital Signs R4)
Observation.partOf (Observation-Vital Signs R4)
Observation.partOf (Observation-Vital Signs R4)
Observation.partOf (Observation-Vital Signs R4)
Observation.partOf (Observation-Vital Signs R4)
Observation.hasMember (Observation-Vital Signs R4)
Observation.hasMember (Observation-Vital Signs R4)
ServiceRequest.basedOn
ServiceRequest.subject
ServiceRequest.requester
ServiceRequest.requester
ServiceRequest.requester
ServiceRequest.performer

ServiceRequest.performer
ServiceRequest.performer
ServiceRequest.performer
ServiceRequest.performer
ServiceRequest.insurance
ServiceRequest.relevantHistory
Specimen.container.additive[x]

Property
URL
Version
Name
Title
Status
Experimental
Date
Publisher
Contact
Jurisdiction
Description
Purpose
Copyright
FHIR Version
Kind
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Base Definition
Abstract
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Publisher
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Contact
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Purpose
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FHIR Version
Kind
Type
Base Definition
Abstract
Derivation

Value
http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition
4.1.0
USCoreCondition
US Core Condition Profile
active
false
2020-06-27
HL7 International - Cross-Group Projects
No display for ContactDetail
United States of America
Defines constraints and extensions on the Condition resource for the minimal set of data to query and return concerns information.
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4.0.1
resource
Condition
http://hl7.org/fhir/StructureDefinition/Condition
false
constraint

Value
http://hl7.org/fhir/us/core/StructureDefinition/us-core-condition
4.1.0
USCoreCondition
US Core Condition Profile
active
false
2020-06-27
HL7 International - Cross-Group Projects
No display for ContactDetail
United States of America
Defines constraints and extensions on the Condition resource for the minimal set of data to query and return concerns information.
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4.0.1
resource
Condition
http://hl7.org/fhir/StructureDefinition/Condition
false
constraint

Value

<http://hl7.org/fhir/us/core/StructureDefinition/us-core-documentreference>

4.1.0

USCoreDocumentReferenceProfile

US Core DocumentReference Profile

active

false

2020-07-02

HL7 International - Cross-Group Projects

No display for ContactDetail

United States of America

The document reference profile used in US Core.

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4.0.1

resource

DocumentReference

<http://hl7.org/fhir/StructureDefinition/DocumentReference>

false

constraint

Value

<http://hl7.org/fhir/us/core/StructureDefinition/us-core-encounter>

4.1.0

USCoreEncounterProfile

US Core Encounter Profile

active

false

2019-05-21

HL7 International - Cross-Group Projects

No display for ContactDetail

United States of America

The Encounter referenced in the US Core profiles.

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4.0.1

resource

Encounter

<http://hl7.org/fhir/StructureDefinition/Encounter>

false

constraint

Value

<http://hl7.org/fhir/us/core/StructureDefinition/us-core-immunization>

4.1.0

USCoreImmunizationProfile

US Core Immunization Profile
active
false
2019-08-26
HL7 International - Cross-Group Projects
No display for ContactDetail
United States of America
Defines constraints and extensions on the Immunization resource for the minimal set of data to query and immunization information.
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4.0.1
resource
Immunization
http://hl7.org/fhir/StructureDefinition/Immunization
false
constraint

Value

http://hl7.org/fhir/us/core/StructureDefinition/us-core-location
4.1.0
USCoreLocation
US Core Location Profile
active
false
2019-05-21
HL7 International - Cross-Group Projects
No display for ContactDetail
United States of America
Defines basic constraints and extensions on the Location resource for use with other US Core resources
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4.0.1
resource
Location
http://hl7.org/fhir/StructureDefinition/Location
false
constraint

Value

http://hl7.org/fhir/us/core/StructureDefinition/us-core-medication
4.1.0
USCoreMedicationProfile
US Core Medication Profile
active

false
2019-05-21
HL7 International - Cross-Group Projects
No display for ContactDetail
United States of America
Defines constraints and extensions on the Medication resource for the minimal set of data to query and retrieve patient's medication information.
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4.0.1
resource
Medication
http://hl7.org/fhir/StructureDefinition/Medication
false
constraint

Value

http://hl7.org/fhir/us/core/StructureDefinition/us-core-medicationrequest
4.1.0
USCoreMedicationRequestProfile
US Core MedicationRequest Profile
active
false
2020-06-26
HL7 International - Cross-Group Projects
No display for ContactDetail
United States of America
Defines constraints and extensions on the MedicationRequest resource for the minimal set of data to query and retrieve information.
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4.0.1
resource
MedicationRequest
http://hl7.org/fhir/StructureDefinition/MedicationRequest
false
constraint

Value

http://hl7.org/fhir/us/core/StructureDefinition/us-core-observation-lab
4.1.0
USCoreLaboratoryResultObservationProfile
US Core Laboratory Result Observation Profile
active
false

2020-06-27
HL7 International - Cross-Group Projects
No display for ContactDetail
United States of America
Defines constraints and extensions on the Observation resource for the minimal set of data to query and results
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4.0.1
resource
Observation
http://hl7.org/fhir/StructureDefinition/Observation
false
constraint

Value
http://hl7.org/fhir/us/core/StructureDefinition/us-core-procedure
4.1.0
USCoreProcedureProfile
US Core Procedure Profile
active
false
2020-06-29
HL7 International - Cross-Group Projects
No display for ContactDetail
United States of America
Defines constraints and extensions on the Procedure resource for the minimal set of data to query and re information. This profile can be used to record a service or intervention that is or was performed on or for
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4.0.1
resource
Procedure
http://hl7.org/fhir/StructureDefinition/Procedure
false
constraint

Value
http://hl7.org/fhir/us/core/StructureDefinition/us-core-servicerequest
4.1.0
USCoreServiceRequest
US Core Service Request
active

2018-08-22T00:00:00+00:00
HL7 International - Cross-Group Projects
No display for ContactDetail
United States of America
Defines constraints and extensions on the ServiceRequest resource for the minimal set of data to query and with diagnostic and clinical tests and clinical interventions for a patient
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4.0.1
resource
ServiceRequest
http://hl7.org/fhir/StructureDefinition/ServiceRequest
false
constraint

Value
http://hl7.org/fhir/StructureDefinition/Coverage
4.3.0
Coverage
draft
false
2022-05-28T12:47:40+10:00
Health Level Seven International (Financial Management)
No display for ContactDetail
No display for ContactDetail
Financial instrument which may be used to reimburse or pay for health care products and services. Includes payment.
Coverage provides a link between covered parties (patients) and the payors of their healthcare costs (both
4.3.0
resource
Coverage
http://hl7.org/fhir/StructureDefinition/DomainResource
false
specialization

Value
http://hl7.org/fhir/StructureDefinition/MedicationAdministration
4.3.0
MedicationAdministration
draft

false
2022-05-28T12:47:40+10:00
Health Level Seven International (Pharmacy)
No display for ContactDetail
No display for ContactDetail
Describes the event of a patient consuming or otherwise being administered a medication. This may be a tablet or it may be a long running infusion. Related resources tie this event to the authorizing prescription between patient and health care practitioner.
4.3.0
resource
MedicationAdministration
http://hl7.org/fhir/StructureDefinition/DomainResource
false
specialization

Value

http://hl7.org/fhir/StructureDefinition/Observation
4.3.0
Observation
active
false
2022-05-28T12:47:40+10:00
Health Level Seven International (Orders and Observations)
No display for ContactDetail
No display for ContactDetail
Measurements and simple assertions made about a patient, device or other subject.
Observations are a key aspect of healthcare. This resource is used to capture those that do not require mechanisms.
4.3.0
resource
Observation
http://hl7.org/fhir/StructureDefinition/DomainResource
false
specialization

Value

http://hl7.org/fhir/StructureDefinition/Specimen
4.3.0
Specimen
draft

false
2022-05-28T12:47:40+10:00
Health Level Seven International (Orders and Observations)
No display for ContactDetail
No display for ContactDetail
A sample to be used for analysis.
4.3.0
resource
Specimen
http://hl7.org/fhir/StructureDefinition/DomainResource
false
specialization