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Comment:

* 3.1.0 Version cited in 21 st Centuries Cures Act
<https://www.federalregister.gov/documents/2020/05/01/2020-07419/21st-century-cures-act-interoperability-information-blocking-and-the-onc-health-it-certification>

FHIR R4:

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

FHIR R4 Version 4.0.1	US Core Profile Version 3.1.1*
	3.1.1
	3.1.1
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	3.1.1
4.0.1**	
	3.1.1
	3.1.1
	3.1.1
4.0.1**	
4.0.1**	

3.1.1 is the bug fix release-use this one.

NHSN IG -Cross Measure	RPS
	MS
NHSN Encounter Profile	R
	MS
	R
	MS
	MS
	MS
NHSN Patient Profile - R	R
	MS
	MS
NHSN Specimen Profile	MS

Abbreviation	Name
MS	Must Support
R	Required
NR	Not Required
NRT	Not Required by Technical Team

Technical Guidance

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

Mark all **{Resource}.contained** as NRT.

Mark all **{Resource}.meta** as NRT.

Mark all **{Resource}.text** as NRT.

Details

If available in FHIR API/EHR, must send as required for measure calculation or risk adjustment

Required to send for NHSN Application to determine initial population

Not required for calculating the metrics, No current use for technical eval on data side, will not appear in the Bronze table

After review, the technical team determined these data elements were not needed.

: NRT.

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 we archive so in the future we could switch them back as needed.

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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

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 ImmunizationRecommendation MedicationRequest NutritionOrder ServiceRequest)
DiagnosticReport.status	1	1	Y	code
DiagnosticReport.category	1	*	Y	CodeableConcept
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(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)
DiagnosticReport.resultsInterpreter	0	*		Reference(Practitioner PractitionerRole Organization CareTeam)
DiagnosticReport.specimen	0	*		Reference(Specimen)
DiagnosticReport.result	0	*	Y	Reference(http://hl7.org/fhir/us/core/StructureDefinition/us-core-observation-lab)

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	<p>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.</p>
Extensions that cannot be ignored	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

Business identifier for report	Identifiers assigned to this report by the performer or other systems.
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.

Date/Time 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.

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

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

Binding Strength	Binding Description	FHIR Binding Value Set

preferred	CommonLanguages Max Binding: All Languages	http://hl7.org/fhir/R4/ValueSet/lan

required		http://hl7.org/fhir/R4/ValueSet/dia
example	Codes for diagnostic service sections.	http://hl7.org/fhir/R4/ValueSet/dia
example	Required Pattern: At least the following	

Complex	Fixed Value: (complex)	
Fixed Value	diagnostiServiceSectionID	http://terminology.hl7.org/CodeSy
Fixed Value		LAB
extensible	US Core Diagnostic Report Laboratory Codes (LOINC codes)	https://www.hl7.org/fhir/R4/values

example	SNOMEDCTClinicalFindings	http://hl7.org/fhir/R4/ValueSet/clinical-findings

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

NRT

NR

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]
NRT
NRT

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

R [1..1]

MS [0..*]

NR

MS [0..*]

MS [0..*]

NR

NR

NRT

NRT

NRT

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

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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		CodeableConcept
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(Organization)
Encounter.status	1	1	Y	code
Encounter.statusHistory	0	*		BackboneElement
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.modifier Extension	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.modifier Extension	0	*		Extension

Encounter.participant.type	0	*	Y	CodeableConcept
Encounter.participant.period	0	1	Y	Period
Encounter.participant.individual	0	1	Y	Reference(US Core Practitioner Profile)
Encounter.appointment	0	*		Reference(Appointment)
Encounter.period	0	1	Y	Period
Encounter.length	0	1		Duration
Encounter.reasonCode	0	*	Y	CodeableConcept
Encounter.reasonReference	0	*	Y	Reference(Condition Procedure Observation ImmunizationRecommendation)
Encounter.diagnosis	0	*		BackboneElement

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(Account)
Encounter.hospitalization	0	1	Y	BackboneElement
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(Organization)

Encounter.partOf	0	1		Reference(Encounter)
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Short Description	FHIR Definition
An interaction during which services are provided to the patient	This is basic constraint on Encounter for use in US Core
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.

<p>Text summary of the resource, for human interpretation</p>	<p>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.</p>
<p>Contained, inline Resources</p>	<p>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.</p>

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	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

Identifier(s) by which this encounter is known	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.
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 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 +.
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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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</p>
<p>planned arrived triaged in-progress onleave finished cancelled +</p>	<p>planned arrived triaged in-progress onleave finished cancelled +.</p>
<p>The time that the episode was in the specified status</p>	<p>The time that the episode was in the specified status.</p>
<p>Classification of patient encounter</p>	<p>Concepts representing classification of patient encounter such as ambulatory (outpatient), inpatient, emergency, home health or others due to local variations.</p>

List of past encounter classes	<p>The class history permits the tracking of the encounters transitions without needing to go through the resource history.</p> <p>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.</p>
Unique id for inter-element referencing	<p>Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.</p>
Additional content defined by implementations	<p>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.</p>

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>
<p>inpatient outpatient ambulatory emergency +</p>	<p>inpatient outpatient ambulatory emergency +.</p>
<p>The time that the episode was in the specified class</p>	<p>The time that the episode was in the specified class.</p>

Specific type of encounter	Specific type of encounter (e.g. e-mail consultation, surgical day-care, skilled nursing, rehabilitation).
Specific type of service	Broad categorization of the service that is to be provided (e.g. cardiology).
Indicates the urgency of the encounter	Indicates the urgency of the encounter.
The patient or group present at the encounter	The patient or group present at the encounter.

<p>Episode(s) of care that this encounter should be recorded against</p>	<p>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).</p>
<p>The ServiceRequest that initiated this encounter</p>	<p>The request this encounter satisfies (e.g. incoming referral or procedure request).</p>
<p>List of participants involved in the encounter</p>	<p>The list of people responsible for providing the service.</p>
<p>Unique id for inter-element referencing</p>	<p>Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.</p>

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

Role of participant in encounter	Role of participant in encounter.
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 sub-sets 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.
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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>
<p>The diagnosis or procedure relevant to the encounter</p>	<p>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.</p>
<p>Role that this diagnosis has within the encounter (e.g. admission, billing, discharge ...)</p>	<p>Role that this diagnosis has within the encounter (e.g. admission, billing, discharge ...).</p>

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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>
<p>Pre-admission identifier</p>	<p>Pre-admission identifier.</p>
<p>The location/organization from which the patient came before admission</p>	<p>The location/organization from which the patient came before admission.</p>
<p>From where patient was admitted (physician referral, transfer)</p>	<p>From where patient was admitted (physician referral, transfer).</p>
<p>The type of hospital re-admission that has occurred (if any). If the value is absent, then this is not identified as a readmission</p>	<p>Whether this hospitalization is a readmission and why if known.</p>
<p>Diet preferences reported by the patient</p>	<p>Diet preferences reported by the patient.</p>

Special courtesies (VIP, board member)	Special courtesies (VIP, board member).
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.
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.
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.

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

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.
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.
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, however it could be different, such as if the actor performing the services was from an external organization (which may be billed seperately) for an external consultation. Refer to the example bundle showing an abbreviated set of Encounters for a colonoscopy.

Another Encounter this encounter is part of	Another Encounter of which this encounter is a part of (administratively or in time).
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Binding Strength	Binding Description	FHIR Binding Value Set
Preferred	CommonLanguages	
Max Binding	AllLanguages	http://hl7.org/fhir/R4/valueset-languages.html http://hl7.org/fhir/R4/valueset-all-languages.html

required	IdentifierUse	http://hl7.org/fhir/R4/ValueSet/ide
extensible	IdentifierType	http://hl7.org/fhir/R4/ValueSet/ide

required	EncounterStatus	http://hl7.org/fhir/R4/ValueSet/enc

required	EncounterStatus	http://hl7.org/fhir/R4/ValueSet/enc
extensible	ActEncounterCode	http://hl7.org/fhir/R4/v3/ActEncou

extensible	ActEncounterCode	http://hl7.org/fhir/R4/v3/ActEncou

extensible	USCoreEncounterType	http://hl7.org/fhir/us/core/STU3.1.
example	ServiceType	http://hl7.org/fhir/R4/ValueSet/ser
example	ActPriority	https://terminology.hl7.org/1.0.0/

extensible	ParticipantType	http://hl7.org/fhir/R4/ValueSet/enc
preferred	EncounterReasonCodes	http://hl7.org/fhir/R4/ValueSet/enc

preferred	DiagnosisRole	http://hl7.org/fhir/R4/ValueSet/dia

preferred	AdmitSource	http://hl7.org/fhir/R4/ValueSet/encounter-diet.html
example	HL7VSReAdmissionIndicator	https://terminology.hl7.org/1.0.0/ValueSet.html
example	Diet	http://hl7.org/fhir/R4/valueset-encounter-diet.html

preferred	SpecialCourtesy	http://hl7.org/fhir/R4/ValueSet/enc
preferred	SpecialArrangements	http://hl7.org/fhir/R4/ValueSet/enc
example	DischargeDisposition	http://hl7.org/fhir/R4/ValueSet/enc

required	EncounterLocationStatus	http://hl7.org/fhir/R4/ValueSet/enc
example	LocationType	http://hl7.org/fhir/R4/valueset-loc

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RPS

R [1..*]

R [1..1]

NRT

NRT

NRT

NRT

NRT

NRT

NRT

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

MS [0..1]
NRT
R [1..1] Constrain CQL to triaged in-progress onleave finished
NR
NRT
NRT

NRT

R [1..1]

R [1..1]

R [1..1]

**CQL will constrain
the qualifying
encounter to
classes:** 'inpatient
acute', 'inpatient
encounter',
'observation
encounter', 'inpatient
non-acute', 'short
stay'

MS [0..*]

NRT

NRT

NRT

R [1..1]

R [1..1]

R [1..*]

CQL constrains to:

"Observation

Services":

'http://cts.nlm.nih.gov/

fhir/ValueSet/2.16.840

.1.113762.1.4.1111.1

43'

"Encounter

Inpatient":

'http://cts.nlm.nih.gov/

fhir/ValueSet/2.16.840

.1.113883.3.666.5.30

7'

NR

NR

R [1..1]

NRT

NRT

NR

NRT

NRT

NRT

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

NRT

NRT

NRT

NR

NR

NR
NR
MS [0..1]
NRT
NRT

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

NR
NR
NR
MS [0..1] CQL is constrained to: HL7V2 DischargeDisposition codes
R [1..*]The following co
NRT

NRT

NRT

R [1..1]

MS [0..1]

NR

R [1..1]

NRT

NR

[Back to TOC](#)

[link to change log](#)

FHIR Path	Min	Max	Must Support?	Type(s)
Observation	0	*		Observation
Observation.id	0	1		string
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 ImmunizationRecommen- dation MedicationRequest NutritionOrder ServiceRequest)
Observation.partOf	0	*		Reference(MedicationAd- ministration MedicationDispense MedicationStatement Procedure Immunization ImagingStudy)
Observation.status	1	1	Y	code
Observation.category	1	*	Y	Slice Definition

Observation.category:Laboratory	1	1	Y	CodeableConcept
Observation.category.id	0	1		string
Observation.category.extension	0	*		Extension
Observation.category.coding	1	*	Y	Coding
Observation.category.coding.id	0	1		string

Observation.category.coding.extension	0	*		Extension
Observation.category.coding.system	1	1	Y	uri
Observation.category.coding.version	0	1		string
Observation.category.coding.code	1	1	Y	code

Observation.category.coding.display	0	1		string
Observation.category.coding.userSelected	0	1		boolean
Observation.category.text	0	1		string
Observation.code	1	1	Y	CodeableConcept
Observation.subject	1	1	Y	Reference(US Core Patient Profile)

Observation.focus	0	*		Reference(Resource)
Observation.encounter	0	1		Reference(Encounter)
Observation.effective[x]	0	1	Y	dateTime Period

Observation.issued	0	1		instant
Observation.performer	0	*		Reference(Practitioner PractitionerRole Organization CareTeam Patient RelatedPerson)
Observation.value[x]	0	1	Y	Quantity CodeableConcept string boolean integer Range Ratio SampledData time dateTime Period
Observation.dataAbsentReason	0	1	Y	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.lo w	0	1		SimpleQuantity
Observation.referenceRange.hi gh	0	1		SimpleQuantity
Observation.referenceRange.ty pe	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 time dateTime Period
Observation.component.dataAbsentReason	0	1		CodeableConcept
Observation.component.interpretation	0	*		CodeableConcept
Observation.component.referenceRange	0	*		

Short	Definition
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.
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.

<p>Text summary of the resource, for human interpretation</p>	<p>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.</p>
<p>Contained, inline Resources</p>	<p>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.</p>

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>Extensions that cannot be ignored</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

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.
Classification of type of observation Slice: Unordered, Open by pattern:\$this	A code that classifies the general type of observation being made.

Classification of type of observation	A code that classifies the general type of observation being made.
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.
Code defined by a terminology system	A reference to a code defined by a terminology system.
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.

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>Identity of the terminology system Fixed Value: http://terminology.hl7.org/CodeSystem/observation-category</p>	<p>The identification of the code system that defines the meaning of the symbol in the code.</p>
<p>Version of the system - if relevant</p>	<p>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.</p>
<p>Symbol in syntax defined by the system Fixed Value: laboratory</p>	<p>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).</p>

Representation defined by the system	A representation of the meaning of the code in the system, following the rules of the system.
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).
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.
Laboratory Test Name	The test that was performed. A LOINC **SHALL** be used if the concept is present in LOINC.
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.

<p>What the observation is about, when it is not about the subject of record</p>	<p>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.</p>
<p>Healthcare event during which this observation is made</p>	<p>The healthcare event (e.g. a patient and healthcare provider interaction) during which this observation is made.</p>
<p>Clinically relevant time/time-period for observation us-core-1: Datetime must be at least to day.</p>	<p>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.</p>

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".
Result Value	The Laboratory result value. If a coded value, the valueCodeableConcept.code **SHOULD** be selected from [SNOMED CT](http://hl7.org/fhir/ValueSet/slab-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.
Why the result is missing	Provides a reason why the expected value in the element Observation.value[x] is missing.
High, low, normal, etc.	A categorical assessment of an observation value. For example, high, low, normal.

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).
How it was done	Indicates the mechanism used to perform the observation.
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	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.

<p>Additional content defined by implementations</p>	<p>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.</p>
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<p>Low Range, if relevant</p>	<p>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 $\geq 5 - \leq 9$). If the low bound is omitted, it is assumed to be meaningless (e.g. reference range is ≤ 2.3).</p>
<p>High Range, if relevant</p>	<p>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 $\geq 5 - \leq 9$). If the high bound is omitted, it is assumed to be meaningless (e.g. reference range is ≥ 2.3).</p>
<p>Reference range qualifier</p>	<p>Codes to indicate the what part of the targeted reference population it applies to. For example, the normal or therapeutic range.</p>

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.
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.

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

Type of component observation (code / type)	Describes what was observed. Sometimes this is called the observation "code".
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 <code>Observation.component.value[x]</code> is missing.
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
preferred	CommonLanguages	http://hl7.org/fhir/R4/ValueSet/lan

required	ObservationStatus	http://hl7.org/fhir/R4/ValueSet/obs
preferred	ObservationCategoryCodes	http://hl7.org/fhir/R4/ValueSet/obs

preferred	ObservationCategoryCodes	http://hl7.org/fhir/R4/ValueSet/obs

extensible	LOINCCodes	http://hl7.org/fhir/R4/ValueSet/obs

extensible	DataAbsentReason	http://hl7.org/fhir/R4/ValueSet/data-absent-reason
extensible	ObservationInterpretationCodes	http://hl7.org/fhir/R4/ValueSet/observation-interpretation-codes

example	SNOMEDCTBodyStructures	http://hl7.org/fhir/R4/ValueSet/body
example	ObservationMethods	http://hl7.org/fhir/R4/ValueSet/obs

preferred	ObservationReferenceRangeMea ningCodes	http://hl7.org/fhir/R4/ValueSet/ref

example	ObservationReferenceRangeAppl iesToCodes	http://hl7.org/fhir/R4/ValueSet/ref

example	LOINCCodes	http://hl7.org/fhir/R4/valueset-obs
extensible	DataAbsentReason	http://hl7.org/fhir/R4/ValueSet/dat
extensible	ObservationInterpretationCodes	http://hl7.org/fhir/R4/ValueSet/obs

RPS

MS [0..*]

R [1..1]

NRT

NRT

NRT

NRT

NRT

NRT

NRT

NRT

NR

NR

R[1..1]

R [1..*]

R [1..1]
NRT
NRT
NR
NR

NR

NR

NR

NR

NR

NR

NR

R [1..1]

R [1..1]

NR

MS [0..1]

R [1..1]

MS [0..1]

NR

MS [0..1]
(could have a null if
lab result/status is
not yet finalized)

NR

MS [0..*]

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

NRT

NRT

NR

NR

NR

NR

NR

NR

MS [0..*]

MS [0..*]

MS [0..*]

NRT

NRT

NRT

R [1..1]

MS [0..1]

NR

MS [0..*]

NR

RPS question for FHIR SME: what does this mean? 5/10/23 Per Dave:

Observation.category notes the classification of the type of the observation. It is a flag that can be use (ie implemented) to represent one or many concepts referring to the type or classification of the observation. Some common examples of classifications we might see (some of the time) are here. I could see a hospital including a local code 'transmission-based-precaution' or 'tbp' code here; I could also see a hospital using one of these codes or their own other codes to represent the concept of 'tbp'.

But also, expect some hospitals may not use Observations to convey the concept of a TBP.

In a nutshell, to me, Observation.category is a key element that Link should transmit to NHSN. beyond that, I think we need to wait and see multiple hospitals' data before we can begin to inform an understanding/expectation regarding what coded concepts we may expect here. And our understanding will need to keep evolving as we onboard more and more hospitals.

Note- while many .category repetitions are allowed for a single Observation, at least 1 is required, so any Observation that does not have at least one Observation.category will be an invalid Observation.

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FHIR Path - http://hl7.org/fhir/us/core/ StructureDefinition/us-core- location	Min	Max	Must Support	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.modifier Extension	0	*		Extension
Location.hoursOfOperation.daysOf Week	0	*		code
Location.hoursOfOperation.allDay	0	1		boolean
Location.hoursOfOperation.opening Time	0	1		time
Location.hoursOfOperation.closingT ime	0	1		time

Location.availabilityExceptions	0	1		string
Location.endpoint	0	*		Reference(Endpoint)

Short	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.

<p>Text summary of the resource, for human interpretation</p>	<p>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.</p>
<p>Contained, inline Resources</p>	<p>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.</p>

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>Extensions that cannot be ignored</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>
<p>Longitude with WGS84 datum</p>	<p>Longitude. The value domain and the interpretation are the same as for the text of the longitude element in KML (see notes below).</p>
<p>Latitude with WGS84 datum</p>	<p>Latitude. The value domain and the interpretation are the same as for the text of the latitude element in KML (see notes below).</p>
<p>Altitude with WGS84 datum</p>	<p>Altitude. The value domain and the interpretation are the same as for the text of the altitude element in KML (see notes below).</p>

<p>Organization responsible for provisioning and upkeep</p>	<p>The organization responsible for the provisioning and upkeep of the location.</p>
<p>Another Location this one is physically a part of</p>	<p>Another Location of which this Location is physically a part of.</p>
<p>What days/times during a week is this location usually open</p>	<p>What days/times during a week is this location usually open.</p>
<p>Unique id for inter-element referencing</p>	<p>Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.</p>
<p>Additional content defined by implementations</p>	<p>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.</p>

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<p>mon tue wed thu fri sat sun</p>	<p>Indicates which days of the week are available between the start and end Times.</p>
<p>The Location is open all day</p>	<p>The Location is open all day.</p>
<p>Time that the Location opens</p>	<p>Time that the Location opens.</p>
<p>Time that the Location closes</p>	<p>Time that the Location closes.</p>

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
preferred	CommonLanguages	http://hl7.org/fhir/R4/ValueSet/lan

required	LocationStatus	http://hl7.org/fhir/R4/ValueSet/loc
preferred	hl7VS-bedStatus	https://terminology.hl7.org/1.0.0/
required	LocationMode	http://hl7.org/fhir/R4/ValueSet/loc

extensible	ServiceDeliveryLocationRoleType	https://terminology.hl7.org/1.0.0/

required	AddressUse	http://hl7.org/fhir/R4/ValueSet/adr
required	AddressType	http://hl7.org/fhir/R4/ValueSet/adr
extensible	USPS Two Letter Alphabetic Codes	http://hl7.org/fhir/us/core/STU3.1

example	Physical form of the location.	http://hl7.org/fhir/R4/ValueSet/loc

required	The days of the week.	http://hl7.org/fhir/R4/ValueSet/day

RPS

R [1..*]

R [1..1]

NRT

NRT

NRT

NRT

NRT

NRT

NRT

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

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

NR

NR

NR

NRT

NRT

NRT

NR

NR

NR

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

NRT

NR

NR

NR

NR

NR

NR

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[Link to Change Log](#)

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

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

Medication.extension	0	*		Extension
Medication.modifierExtension	0	*		Extension

Medication.identifier	0	*		Identifier
Medication.code	1	1	Y	CodeableConcept
Medication.status	0	1		code
Medication.manufacturer	0	1		Reference(Organization)
Medication.form	0	1		CodeableConcept
Medication.amount	0	1		Ratio
Medication.ingredient	0	*		BackboneElement

Medication.ingredient.id	0	1		string
Medication.ingredient.extension	0	*		Extension

Medication.ingredient.modifierExtension	0	*		Extension
Medication.ingredient.item[x]	1	1		CodeableConcept Reference(Substance Medication)
Medication.ingredient.isActive	0	1		boolean

Medication.ingredient.strength	0	1		Ratio
Medication.batch	0	1		BackboneElement
Medication.batch.id	0	1		string
Medication.batch.extension	0	*		Extension
Medication.batch.modifierExtension	0	*		Extension
Medication.batch.lotNumber	0	1		string
Medication.batch.expirationDate	0	1		dateTime

Short	Definition
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.
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. (ex English)
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	<p>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.</p>
Extensions that cannot be ignored	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

Business identifier for this medication	Business identifier for this medication.
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.
active inactive entered-in-error	A code to indicate if the medication is in active use.
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.
powder tablets capsule +	Describes the form of the item. Powder; tablets; capsule.
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.).
Active or inactive ingredient	Identifies a particular constituent of interest in the product.

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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>
<p>The actual ingredient or content</p>	<p>The actual ingredient - either a substance (simple ingredient) or another medication of a medication.</p>
<p>Active ingredient indicator</p>	<p>Indication of whether this ingredient affects the therapeutic action of the drug.</p>

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.
Details about packaged medications	Information that only applies to packages (not products).
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
Identifier assigned to batch	The assigned lot number of a batch of the specified product.
When batch will expire	When this specific batch of product will expire.

Binding Strength	Binding Description	Binding Value Set

preferred	CommonLanguages	http://hl7.org/fhir/R4/ValueSet/lan

extensible	USCoreMedicationCodes	http://hl7.org/fhir/us/core/STU3.1.1
required	Medication Status Codes	http://hl7.org/fhir/R4/ValueSet/medication-status-codes
example	4.0.1 SNOMEDCTFormCodes	http://hl7.org/fhir/R4/ValueSet/medication-status-codes

RPS

MS [0..*]

R [1..1]

NRT

NRT

NRT

NRT

NRT

NRT

NRT

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

NRT

NRT

NRT
R [1..1]
NRT

NR

NR

NRT

NRT

NRT

NR

NR

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FHIR Path	Min	Max	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.dose.site	0	1	CodeableConcept
MedicationAdministration.dose.route	0	1	CodeableConcept
MedicationAdministration.dose.method	0	1	CodeableConcept
MedicationAdministration.dose.dose	0	1	SimpleQuantity

MedicationAdministration.dose.rate[x]	0	1	Ratio SimpleQuantity
MedicationAdministration.eventHistory	0	*	Reference(Provenance)

Short	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.

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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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>
<p>Type of performance</p>	<p>Distinguishes the type of involvement of the performer in the medication administration.</p>
<p>Who performed the medication administration</p>	<p>Indicates who or what performed the medication administration.</p>
<p>Reason administration performed</p>	<p>A code indicating why the medication was given.</p>
<p>Condition or observation that supports why the medication was administered</p>	<p>Condition or observation that supports why the medication was administered.</p>

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.

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<p>Free text dosage instructions e.g. SIG</p>	<p>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.</p>

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)	Binding Value Set

preferred but limited to AllLanguages	CommonLanguages	http://hl7.org/fhir/R4/ValueSet/lan

required	MedicationAdministration Status Codes	http://hl7.org/fhir/R4/ValueSet/me
example	SNOMEDCTReasonMedicationNot GivenCodes	http://hl7.org/fhir/R4/ValueSet/rea

example	MedicationAdministration Performer Function Codes	http://hl7.org/fhir/R4/ValueSet/me
example	ReasonMedicationGivenCodes	http://hl7.org/fhir/R4/ValueSet/rea

example	SNOMEDCTAnatomicalStructureF orAdministrationSiteCodes	http://hl7.org/fhir/R4/ValueSet/ap
example	SNOMEDCTRouteCodes	http://hl7.org/fhir/R4/ValueSet/rou
example	SNOMEDCTAdministrationMetho dCodes	http://hl7.org/fhir/R4/ValueSet/adr

RPS

MS [0..*]

R [1..1]

NRT

NRT

NRT

NRT

NRT

NRT

NRT

NRT

NR

NR

R [1..1]

MS [0..*]

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

NRT

NRT

NRT

NR

NR

MS [0..*]

MS [0..*]

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

NR

NR

NR

NR

NR

NR

NR

[Back to TOC](#)

FHIR Path	Min	Max	Must Support?	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

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}
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
MedicationRequest.dispenseRequest.initialFill.modifierExtension	0	*		Extension

MedicationRequest.dispenseReques t.initialFill.quantity	0	1		Quantity {SimpleQuantity}
MedicationRequest.dispenseReques t.initialFill.duration	0	1		Duration
MedicationRequest.dispenseReques t.dispenseInterval	0	1		Duration
MedicationRequest.dispenseReques t.validityPeriod	0	1		Period
MedicationRequest.dispenseReques t.numberOfRepeatsAllowed	0	1		unsignedInt
MedicationRequest.dispenseReques t.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(MedicationRequest)

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

Short	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	<p>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.</p>
Extensions that cannot be ignored	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

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	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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<p>The order of the dosage instructions</p>	<p>Indicates the order in which the dosage instructions should be applied or interpreted.</p>
<p>Free text dosage instructions e.g. SIG</p>	<p>Free text dosage instructions e.g. SIG.</p>

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	Amount of medication per dose.
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.

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<p>First fill details</p>	<p>Indicates the quantity or duration for the first dispense of the medication.</p>
<p>Unique id for inter-element referencing</p>	<p>Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.</p>

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

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.

Binding Strength	Binding Description	Binding Value Set

preferred	CommonLanguages	http://hl7.org/fhir/R4/ValueSet/lan

required	medicationrequest Status	http://hl7.org/fhir/R4/ValueSet/me
example	medicationRequest Status Reason Codes	http://hl7.org/fhir/R4/ValueSet/me
required	medicationRequest Intent	http://hl7.org/fhir/R4/ValueSet/me
example	medicationRequest Category Codes	http://hl7.org/fhir/R4/ValueSet/me
required	RequestPriority	http://hl7.org/fhir/R4/ValueSet/rec

extensible	US Core Medication Codes (RxNorm)	http://hl7.org/fhir/us/core/STU3.1

example	Procedure Performer Role Codes	http://hl7.org/fhir/R4/ValueSet/pe
example	Condition/Problem/Diagnosis Codes	http://hl7.org/fhir/R4/ValueSet/cor

example	Medication request course of therapy codes	http://hl7.org/fhir/R4/ValueSet/me

example	A coded concept identifying additional instructions such as "take with water" or "avoid operating heavy machinery".	http://hl7.org/fhir/R4/ValueSet/ad
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/R4/ValueSet/me
example	A coded concept describing the site location the medicine enters into or onto the body.	http://hl7.org/fhir/R4/ValueSet/ap
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/R4/ValueSet/rou
example	A coded concept describing the technique by which the medicine is administered.	http://hl7.org/fhir/R4/ValueSet/ad

example	ActSubstanceAdminSubstitutionCode	http://terminology.hl7.org/ValueS
example	SubstanceAdminSubstitutionReason	http://terminology.hl7.org/ValueS
Y		

Y		
Y		

RPS

MS [0..*]

R [1..1]

NRT

NRT

NRT

NRT

NRT

NRT

NRT

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

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

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

Required in US Core 3.1.1;
Optional in US Core 4

<https://jira.hl7.org/browse/FHIR-30>

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

MS [0..*]
NRT
NRT

NRT

NRT

NR

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

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NR

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NRT

NRT

NRT

1430

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FHIR Path	Min	Max	Must Support?	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	<p>(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</p>
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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
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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
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Patient.communication.modifier Extension	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

Short	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.

<p>Text summary of the resource, for human interpretation</p>	<p>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.</p>
<p>Contained, inline Resources</p>	<p>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.</p>
<p>Extension</p>	<p>An Extension</p>

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/phin/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.

US Core ethnicity Extension	<p>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/phin/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.</p>
Extension	<p>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).</p>
Extension	An Extension

Extensions that cannot be ignored	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including</p>
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.

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>usual official temp secondary old (If known)</p>	<p>The purpose of this identifier.</p>
<p>Description of identifier</p>	<p>A coded type for the identifier that can be used to determine which identifier to use for a specific purpose.</p>
<p>The namespace for the identifier value Example General: http://www.acme.com/identifiers/patient</p>	<p>Establishes the namespace for the value - that is, a URL that describes a set values that are unique.</p>
<p>The value that is unique within the system.</p>	<p>The portion of the identifier typically relevant to the user and which is unique within the context of the system.</p>
<p>Time period when id is/was valid for use</p>	<p>Time period during which identifier is/was valid for use.</p>

<p>Organization that issued id (may be just text)</p>	<p>Organization that issued/manages the identifier.</p>
<p>Whether this patient's record is in active use</p>	<p>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.</p> <p>It is often used to filter patient lists to exclude inactive patients</p> <p>Deceased patients may also be marked as inactive for the same reasons, but may be active for some time after death.</p>
<p>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.</p>	<p>A name associated with the individual.</p>
<p>Unique id for inter-element referencing</p>	<p>Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.</p>

<p>Additional content defined by implementations</p>	<p>May be <i>used to represent additional information that is not part of the basic definition of the element.</i></p> <p>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.</p>
<p>usual official temp nickname anonymous old maiden</p>	<p>Identifies the purpose for this name.</p>
<p>Text representation of the full name</p>	<p>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.</p>
<p>Family name (often called 'Surname')</p>	<p>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.</p>
<p>Given names (not always 'first'). Includes middle names This repeating element order: Given Names appear in the correct order for presenting the name</p>	<p>Given name.</p>

<p>Parts that come before the name This repeating element order: Prefixes appear in the correct order for presenting the name</p>	<p>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.</p>
<p>Parts that come after the name This repeating element order: Suffixes appear in the correct order for presenting the name</p>	<p>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.</p>
<p>Time period when name was/is in use</p>	<p>Indicates the period of time when this name was valid for the named person.</p>
<p>A contact detail for the individual</p>	<p>A contact detail (e.g. a telephone number or an email address) by which the individual may be contacted.</p>
<p>Unique id for inter-element referencing</p>	<p>Unique id for the element within a resource (for internal references). This may be any string value that does not contain spaces.</p>

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>phone fax email pager url sms other</p>	<p>Telecommunications form for contact point - what communications system is required to make use of the contact.</p>
<p>The actual contact point details</p>	<p>The actual contact point details, in a form that is meaningful to the designated communication system (i.e. phone number or email address).</p>
<p>home work temp old mobile - purpose of this contact point</p>	<p>Identifies the purpose for the contact point.</p>
<p>Specify preferred order of use (1 = highest)</p>	<p>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.</p>

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 ***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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including</p>
<p>The kind of relationship</p>	<p>The nature of the relationship between the patient and the contact person.</p>
<p>A name associated with the contact person</p>	<p>A name associated with the contact person.</p>
<p>A contact detail for the person</p>	<p>A contact detail for the person, e.g. a telephone number or an email address.</p>
<p>Address for the contact person</p>	<p>Address for the contact person.</p>

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.
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<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including</p>
<p>The language which can be used to communicate with the patient about his or her health</p>	<p>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.</p>

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 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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of</p>
<p>The other patient or related person resource that the link refers to</p>	<p>any elements on Resource or The other patient resource that the link refers to.</p>
<p>replaced-by replaces refer seealso</p>	<p>The type of link between this patient resource and another patient resource.</p>

Binding Strength	Binding Description	Binding Value Set
preferred	A human language.	http://hl7.org/fhir/R4/ValueSet/language

US Core Race Extension

<http://hl7.org/fhir/us/core/STU3.1.>

	US Core ethnicity Extension	http://hl7.org/fhir/us/core/STU3.1
required	Birth Sex	http://hl7.org/fhir/us/core/STU3.1

required	Identifier Use	http://hl7.org/fhir/R4/ValueSet/ide
extensible	Identifier Type Codes	http://hl7.org/fhir/R4/ValueSet/ide

required	NameUse	http://hl7.org/fhir/R4/ValueSet/name-use

required	ContactPointSystem	http://hl7.org/fhir/R4/ValueSet/contactpoint-system
required	ContactPointUse	http://hl7.org/fhir/R4/ValueSet/contactpoint-use

required	AddressUse	http://hl7.org/fhir/R4/ValueSet/addr
required	AddressType	http://hl7.org/fhir/R4/ValueSet/addr
extensible	USPS Two Letter Alphabetic Codes	http://hl7.org/fhir/us/core/STU3.1

extensible	Marital Status Codes	http://hl7.org/fhir/R4/ValueSet/marital-status

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extensible	The nature of the relationship between a patient and a contact person for that patient.	http://hl7.org/fhir/R4/ValueSet/patient-contact

required	The gender of a person used for administrative purposes.	http://hl7.org/fhir/R4/ValueSet/ad

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extensible		http://hl7.org/fhir/us/core/STU3.1

required	LinkType	http://hl7.org/fhir/R4/ValueSet/link

RPS

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R [1..1]

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NR

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MS[0..*]

[0..*]

[0..*]

[0..*]

R [1..1]

R [1..1]

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FHIR Path	Min	Max	Must Support ?	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
Procedure.reasonReference	0	*		Reference(Condition Observation Procedure DiagnosticReport DocumentReference)
Procedure.bodySite	0	*		CodeableConcept
Procedure.outcome	0	1		CodeableConcept
Procedure.report	0	*		Reference(DiagnosticRep ort 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

Short	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.

<p>Text summary of the resource, for human interpretation</p>	<p>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.</p>
<p>Contained, inline Resources</p>	<p>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.</p>

Additional content defined by implementations	<p>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.</p>
Extensions that cannot be ignored	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>
<p>Type of performance</p>	<p>Distinguishes the type of involvement of the performer in the procedure. For example, surgeon, anaesthetist, endoscopist.</p>
<p>The reference to the practitioner</p>	<p>The practitioner who was involved in the procedure.</p>
<p>Organization the device or practitioner was acting for</p>	<p>The organization the device or practitioner was acting on behalf of.</p>

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.
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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>
<p>Kind of change to device</p>	<p>The kind of change that happened to the device during the procedure.</p>
<p>Device that was changed</p>	<p>The device that was manipulated (changed) during the procedure.</p>
<p>Items used during procedure</p>	<p>Identifies medications, devices and any other substance used as part of the procedure.</p>
<p>Coded items used during the procedure</p>	<p>Identifies coded items that were used as part of the procedure.</p>

Binding Strength	Binding Description	Binding Value Set
preferred	A human language.	http://hl7.org/fhir/R4/ValueSet/lang

required		http://hl7.org/fhir/R4/ValueSet/ev
example	A code that identifies the reason a procedure was not performed.	http://hl7.org/fhir/R4/ValueSet/pro
example	A code that classifies a procedure for searching, sorting and display purposes.	http://hl7.org/fhir/R4/ValueSet/pro

extensible	Codes describing the type of Procedure	http://hl7.org/fhir/R4/valueset-pro

example	A code that identifies the role of a performer of the procedure.	http://hl7.org/fhir/R4/ValueSet/pe

example	A code that identifies the reason a procedure is required.	http://hl7.org/fhir/R4/ValueSet/pro
example	Codes describing anatomical locations. May include laterality.	http://hl7.org/fhir/R4/ValueSet/bo
example	An outcome of a procedure - whether it was resolved or otherwise.	http://hl7.org/fhir/R4/ValueSet/pro

example	Codes describing complications that resulted from a procedure.	http://hl7.org/fhir/R4/ValueSet/complication
example	Specific follow up required for a procedure e.g. removal of sutures.	http://hl7.org/fhir/R4/ValueSet/procedure-follow-up

preferred	A kind of change that happened to the device during the procedure.	http://hl7.org/fhir/R4/ValueSet/de
example	Codes describing items used during a procedure.	http://hl7.org/fhir/R4/ValueSet/de

RPS

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R [1..1]

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R [1..1]

R [1..1]

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FHIR Path	Min	Max	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)

Short	Definition
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.
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.

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>Extensions that cannot be ignored</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

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.
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.

Classification of service	A code that classifies the service for searching, sorting and display purposes (e.g. "Surgical Procedure").
routine urgent asap stat	Indicates how quickly the ServiceRequest should be addressed with respect to other requests.
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.
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.
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.
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.

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.
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`.
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.
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 Strength	Binding Description	Binding Value Set

preferred	Common Languages	http://hl7.org/fhir/R4/ValueSet/lan

required	RequestStatus	http://hl7.org/fhir/R4/ValueSet/req
required	RequestIntent	http://hl7.org/fhir/R4/ValueSet/req

example	Service Request Category Codes	http://hl7.org/fhir/R4/ValueSet/ser
required	Request priority	http://hl7.org/fhir/R4/ValueSet/rec
example	Procedure Codes (SNOMED CT)	http://hl7.org/fhir/R4/ValueSet/pro
example	Service Request Order Details Codes	http://hl7.org/fhir/R4/ValueSet/ser

example	SNOMED CT Medication As Needed Reason Codes	http://hl7.org/fhir/R4/ValueSet/me
example	Participant Roles	https://hl7.org/fhir/R4/valueset-pa

example	V3 Value SetServiceDeliveryLocationRoleType	https://hl7.org/fhir/R4/v3/ServiceD
example	Procedure Reason Codes	http://hl7.org/fhir/R4/ValueSet/pro

example	SNOMED CT Body Structures	http://hl7.org/fhir/R4/ValueSet/body-structures

RPS

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MS [0..1]

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FHIR Path	Min	Max	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(ServiceRequest)
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	dateTimePeriod
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

Short	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.
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.

<p>Text summary of the resource, for human interpretation</p>	<p>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.</p>
<p>Contained, inline Resources</p>	<p>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.</p>

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
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. For example, of
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
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.

<p>Additional content defined by implementations</p>	<p>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.</p>
<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>

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.

<p>Extensions that cannot be ignored even if unrecognized</p>	<p>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.</p> <p>Modifier extensions SHALL NOT change the meaning of any elements on Resource or DomainResource (including cannot change the meaning of modifierExtension itself).</p>
<p>Id for the container</p>	<p>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.</p>
<p>Textual description of the container</p>	<p>Textual description of the container.</p>
<p>Kind of container directly associated with specimen</p>	<p>The type of container associated with the specimen (e.g. slide, aliquot, etc.).</p>
<p>Container volume or size</p>	<p>The capacity (volume or other measure) the container may contain.</p>

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
preferred	Common Languages	http://hl7.org/fhir/R4/ValueSet/lan

required	SpecimenStatus	http://hl7.org/fhir/R4/ValueSet/specimen-status
example	V2 Specimen Type	https://hl7.org/fhir/R4/v2/0487/inventory-specimen-type

example	FHIR Specimen Collection Method	http://hl7.org/fhir/R4/ValueSet/specimen-collection-method
example	SNOMED CT Body Structures	http://hl7.org/fhir/R4/valueset-body-structures
extensible	v2 Relevant Clinical Information	https://hl7.org/fhir/R4/v2/0916/information

example	Speciment container	http://hl7.org/fhir/R4/ValueSet/specimen-container

example	v2 Additive	https://hl7.org/fhir/R4/v2/0371/inc
extensible	v2 Specimen Condition	https://hl7.org/fhir/R4/v2/0493/inc

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

NRT

NRT

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

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

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

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NRT

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Property
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Purpose
Copyright
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 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 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 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 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 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 que
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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 information. This profile can be used to record a service or intervention that is or was performed o
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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 o 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 payment.

Coverage provides a link between covered parties (patients) and the payors of their healthcare cos

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 short running infusion or it may be a long running infusion. Related resources tie this event to the authorizing prescription, the 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 a prescription.
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