HL7 FHIR (http://hl7.org/fhir)**Release 4**

(http://hl7.org/fhir/search.cfm)　**HL7** International (http://www.hl7.org)

 Medications (medications-module.html) > **Immunization**

This page is part of the FHIR Specification (v4.0.1: R4 - Mixed Normative (https://confluence.hl7.org/display/HL7/HL7+Balloting) and STU (https://confluence.hl7.org/display/HL7/HL7+Balloting)). This is the current published version. For a full list of available versions, see the Directory of published versions (http://hl7.org/fhir/directory.html)

Content　　Examples (immunization-examples.html)　　Detailed Descriptions (immunization-definitions.html)　　Mappings (immunization-mappings.html)

Profiles & Extensions (immunization-profiles.html)　　R3 Conversions (immunization-version-maps.html)

11.7 Resource Immunization - Content

Public Health and Emergency Response (http://www.hl7.org/Special/committees/pher/index.cfm) Work Group	Maturity Level (versions.html#maturity): 3	Trial Use (versions.html#std-process)	Security Category (security.html#SecPrivConsiderations): Patient	Compartments (compartmentdefinition.html): Patient (compartmentdefinition-patient.html), Practitioner (compartmentdefinition-practitioner.html)

Describes the event of a patient being administered a vaccine or a record of an immunization as reported by a patient, a clinician or another party.

11.7.1 Scope and Usage

The Immunization resource is intended to cover the recording of current and historical administration of vaccines to patients across all healthcare disciplines in all care settings and all regions. This includes immunization of both humans and animals but does not include the administration of non-vaccine agents, even those that may have or claim to have immunological effects. While the terms "immunization" and "vaccination" are not clinically identical, for the purposes of the FHIR resources, the terms are used synonymously.

Additionally, the Immunization resource is expected to cover key concepts related to the creation, revision and querying of a patient's immunization history. This resource - through consultation with the Public Health work group - is believed to meet key use cases and information requirements as defined in the existing HL7 v2 (http://www.hl7.org/implement/standards/product_brief.cfm?product_id=185) immunization implementation guide, HL7 v3 (https://www.hl7.org/implement/standards/product_brief.cfm?product_id=186) POIZ domain and Immunization Domain Analysis Model.

11.7.2 Boundaries and Relationships

Administration of vaccines is intended to be handled using the **Immunization** resource. MedicationAdministration (medicationadministration.html) is intended for tracking the administration of non-vaccine medications. Some systems treat immunizations in the same way as any other medication administration. Such systems SHOULD use an immunization resource to represent these. If systems need to use a MedicationAdministration (medicationadministration.html) resource to capture vaccinations for workflow or other reasons, they SHOULD also expose an equivalent **Immunization** instance.

Immunization.reaction may be an indication of an allergy or intolerance. If this is deemed to be the case, a separate AllergyIntolerance resource instance should be created to indicate it, as most systems will not query against past Immunization.reaction.

This resource is referenced by AdverseEvent (adverseevent.html#AdverseEvent), ChargeItem (chargeitem.html#ChargeItem), ImmunizationEvaluation (immunizationevaluation.html#ImmunizationEvaluation), ImmunizationRecommendation (immunizationrecommendation.html#ImmunizationRecommendation) and Observation (observation.html#Observation)

11.7.3 Resource Content

Structure | UML | XML | JSON | Turtle | R3 Diff | All

Structure

Name (formats.html#table)	Flags (formats.html#table)	Card. (formats.html#table)	Type (formats.html#table)
Immunization (immunization-definitions.html#Immunization)	TU (versions.html#std-process)		DomainResource (domai
identifier (immunization-definitions.html#Immunization.identifier)		0..*	Identifier (datatypes.htm

status (immunization-definitions.html#Immunization.status)	?! (conformance-rules.html#isModifier) Σ (elementdefinition-definitions.html#ElementDefinition.isSummary)	1..1	code (datatypes.html#cc
statusReason (immunization-definitions.html#Immunization.statusReason)		0..1	CodeableConcept (datatypes.html#Codeab
vaccineCode (immunization-definitions.html#Immunization.vaccineCode)	Σ (elementdefinition-definitions.html#ElementDefinition.isSummary)	1..1	CodeableConcept (datatypes.html#Codeab
patient (immunization-definitions.html#Immunization.patient)	Σ (elementdefinition-definitions.html#ElementDefinition.isSummary)	1..1	Reference (references.ht (Patient (patient.html))
encounter (immunization-definitions.html#Immunization.encounter)		0..1	Reference (references.ht (Encounter (encounter.ht
occurrence[x] (immunization-definitions.html#Immunization.occurrence_x_)	Σ (elementdefinition-definitions.html#ElementDefinition.isSummary)	1..1	
occurrenceDateTime			dateTime (datatypes.htm
occurrenceString			string (datatypes.html#s
recorded (immunization-definitions.html#Immunization.recorded)		0..1	dateTime (datatypes.htm
primarySource (immunization-definitions.html#Immunization.primarySource)	Σ (elementdefinition-definitions.html#ElementDefinition.isSummary)	0..1	boolean (datatypes.html
reportOrigin (immunization-definitions.html#Immunization.reportOrigin)		0..1	CodeableConcept (datatypes.html#Codeab
location (immunization-definitions.html#Immunization.location)		0..1	Reference (references.ht (Location (location.html)
manufacturer (immunization-definitions.html#Immunization.manufacturer)		0..1	Reference (references.ht (Organization (organizat
lotNumber (immunization-definitions.html#Immunization.lotNumber)		0..1	string (datatypes.html#s
expirationDate (immunization-definitions.html#Immunization.expirationDate)		0..1	date (datatypes.html#da
site (immunization-definitions.html#Immunization.site)		0..1	CodeableConcept (datatypes.html#Codeab
route (immunization-definitions.html#Immunization.route)		0..1	CodeableConcept (datatypes.html#Codeab
doseQuantity (immunization-definitions.html#Immunization.doseQuantity)		0..1	SimpleQuantity (datatypes.html#SimpleC
performer (immunization-definitions.html#Immunization.performer)	Σ (elementdefinition-definitions.html#ElementDefinition.isSummary)	0..*	BackboneElement (backboneelement.html)
function (immunization-definitions.html#Immunization.performer.function)	Σ (elementdefinition-definitions.html#ElementDefinition.isSummary)	0..1	CodeableConcept (datatypes.html#Codeab
actor (immunization-definitions.html#Immunization.performer.actor)	Σ (elementdefinition-definitions.html#ElementDefinition.isSummary)	1..1	Reference (references.ht (Practitioner (practitione PractitionerRole (practic Organization (organizatic
note (immunization-definitions.html#Immunization.note)	Σ (elementdefinition-definitions.html#ElementDefinition.isSummary)	0..*	Annotation (datatypes.ht
reasonCode (immunization-definitions.html#Immunization.reasonCode)		0..*	CodeableConcept (datatypes.html#Codeab
reasonReference (immunization-definitions.html#Immunization.reasonReference)		0..*	Reference (references.ht (Condition (condition.htn (observation.html)	Diag (diagnosticreport.html))
isSubpotent (immunization-definitions.html#Immunization.isSubpotent)	?! (conformance-rules.html#isModifier) Σ (elementdefinition-definitions.html#ElementDefinition.isSummary)	0..1	boolean (datatypes.html
subpotentReason (immunization-definitions.html#Immunization.subpotentReason)		0..*	CodeableConcept (datatypes.html#Codeab
education (immunization-definitions.html#Immunization.education)	I (conformance-rules.html#constraints)	0..*	BackboneElement (backboneelement.html)
documentType (immunization-definitions.html#Immunization.education.documentType)		0..1	string (datatypes.html#s
reference (immunization-definitions.html#Immunization.education.reference)		0..1	uri (datatypes.html#uri)
publicationDate (immunization-definitions.html#Immunization.education.publicationDate)		0..1	dateTime (datatypes.htm
presentationDate (immunization-definitions.html#Immunization.education.presentationDate)		0..1	dateTime (datatypes.htm

⬡ programEligibility (immunization-definitions.html#Immunization.programEligibility)		0..*	CodeableConcept (datatypes.html#Codeab
⬡ fundingSource (immunization-definitions.html#Immunization.fundingSource)		0..1	CodeableConcept (datatypes.html#Codeab
📁 reaction (immunization-definitions.html#Immunization.reaction)		0..*	BackboneElement (backboneelement.html)
🔲 date (immunization-definitions.html#Immunization.reaction.date)		0..1	dateTime (datatypes.htm
⬈ detail (immunization-definitions.html#Immunization.reaction.detail)		0..1	Reference (references.ht (Observation (observatio
🔲 reported (immunization-definitions.html#Immunization.reaction.reported)		0..1	boolean (datatypes.html
📁 protocolApplied (immunization-definitions.html#Immunization.protocolApplied)		0..*	BackboneElement (backboneelement.html)
🔲 series (immunization-definitions.html#Immunization.protocolApplied.series)		0..1	string (datatypes.html#s
⬈ authority (immunization-definitions.html#Immunization.protocolApplied.authority)		0..1	Reference (references.ht (Organization (organizat
🔲 targetDisease (immunization-definitions.html#Immunization.protocolApplied.targetDisease)		0..*	CodeableConcept (datatypes.html#Codeab
❓ doseNumber[x] (immunization-definitions.html#Immunization.protocolApplied.doseNumber_x_)		1..1	
🔲 doseNumberPositiveInt			positiveInt (datatypes.ht
🔲 doseNumberString			string (datatypes.html#s
❓ seriesDoses[x] (immunization-definitions.html#Immunization.protocolApplied.seriesDoses_x_)		0..1	
🔲 seriesDosesPositiveInt			positiveInt (datatypes.ht
🔲 seriesDosesString			string (datatypes.html#s

❓ Documentation for this format (formats.html#table)

See the Profiles & Extensions (immunization-profiles.html) and the alternate definitions: Master Definition XML (immunization.profile.xml.html) + JSON (immunization.profile.json.html), XML (xml.html) Schema (immunization.xsd)/Schematron (immunization.sch) + JSON (json.html) Schema (immunization.schema.json.html), ShEx (immunization.shex.html) (for Turtle (rdf.html)) + see the extensions (immunization-profiles.html) & the dependency analysis (immunization-dependencies.html)

11.7.3.1 Terminology Bindings

Path	Definition	Type	Reference
Immunization.status	A set of codes indicating the current status of an Immunization.	Required (terminologies.html#required)	ImmunizationStatusCodes (valueset-immunization-status.html)
Immunization.statusReason	The reason why a vaccine was not administered.	Example (terminologies.html#example)	ImmunizationStatusReasonCodes (valueset-immunization-status-reason.html)
Immunization.vaccineCode	The code for vaccine product administered.	Example (terminologies.html#example)	VaccineAdministeredValueSet (valueset-vaccine-code.html)
Immunization.reportOrigin	The source of the data for a record which is not from a primary source.	Example (terminologies.html#example)	ImmunizationOriginCodes (valueset-immunization-origin.html)
Immunization.site	The site at which the vaccine was administered.	Example (terminologies.html#example)	CodesForImmunizationSiteOfAdministration (valueset-immunization-site.html)
Immunization.route	The route by which the vaccine was administered.	Example (terminologies.html#example)	ImmunizationRouteCodes (valueset-immunization-route.html)
Immunization.performer.function	The role a practitioner or organization plays in the immunization event.	Extensible (terminologies.html#extensible)	ImmunizationFunctionCodes (valueset-immunization-function.html)
Immunization.reasonCode	The reason why a vaccine was administered.	Example (terminologies.html#example)	ImmunizationReasonCodes (valueset-immunization-reason.html)
Immunization.subpotentReason	The reason why a dose is considered to be subpotent.	Example (terminologies.html#example)	ImmunizationSubpotentReason (valueset-immunization-subpotent-reason.html)
Immunization.programEligibility	The patient's eligibility for a vaccation program.	Example (terminologies.html#example)	ImmunizationProgramEligibility (valueset-immunization-program-eligibility.html)
Immunization.fundingSource	The source of funding used to purchase the vaccine administered.	Example (terminologies.html#example)	ImmunizationFundingSource (valueset-immunization-funding-source.html)
Immunization.protocolApplied.targetDisease	The vaccine preventable disease the dose is being administered for.	Example (terminologies.html#example)	ImmunizationTargetDiseaseCodes (valueset-immunization-target-disease.html)

11.7.3.2 Constraints

id	Level	Location	Description	Expression (fhirpath.html)
imm-1	Rule (conformance-rules.html#rule)	Immunization.education	One of documentType or reference SHALL be present	documentType.exists() or reference.exists()

11.7.4 Search Parameters

Search parameters for this resource. The common parameters (search.html#all) also apply. See Searching (search.html) for more information about searching in REST, messaging, and services.

Name	Type	Description	Expression	In Common
date	date (search.html#date)	Vaccination (non)-Administration Date	Immunization.occurrence	17 Resources (searchparameter-registry.html#clinical-date)
identifier	token (search.html#token)	Business identifier	Immunization.identifier	30 Resources (searchparameter-registry.html#clinical-identifier)
location	reference (search.html#reference)	The service delivery location or facility in which the vaccine was / was to be administered	Immunization.location (Location (location.html))	
lot-number	string (search.html#string)	Vaccine Lot Number	Immunization.lotNumber	
manufacturer	reference (search.html#reference)	Vaccine Manufacturer	Immunization.manufacturer (Organization (organization.html))	
patient	reference (search.html#reference)	The patient for the vaccination record	Immunization.patient (Patient (patient.html))	33 Resources (searchparameter-registry.html#clinical-patient)
performer	reference (search.html#reference)	The practitioner or organization who played a role in the vaccination	Immunization.performer.actor (Practitioner (practitioner.html), Organization (organization.html), PractitionerRole (practitionerrole.html))	
reaction	reference (search.html#reference)	Additional information on reaction	Immunization.reaction.detail (Observation (observation.html))	
reaction-date	date (search.html#date)	When reaction started	Immunization.reaction.date	
reason-code	token (search.html#token)	Reason why the vaccine was administered	Immunization.reasonCode	
reason-reference	reference (search.html#reference)	Why immunization occurred	Immunization.reasonReference (Condition (condition.html), Observation (observation.html), DiagnosticReport (diagnosticreport.html))	
series	string (search.html#string)	The series being followed by the provider	Immunization.protocolApplied.series	
status	token (search.html#token)	Immunization event status	Immunization.status	
status-reason	token (search.html#token)	Reason why the vaccine was not administered	Immunization.statusReason	
target-disease	token (search.html#token)	The target disease the dose is being administered against	Immunization.protocolApplied.targetDisease	
vaccine-code	token (search.html#token)	Vaccine Product Administered	Immunization.vaccineCode	