

### 3.41 Immunization Activity (V3)

[substanceAdministration: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01 (open) ]

**Table 313: Immunization Activity (V3) Contexts**

Contained By:	Contains:
<a href="#">Immunizations Section (entries required) (V3)</a> (required) <a href="#">Immunizations Section (entries optional) (V3)</a> (optional) <a href="#">Planned Intervention Act (V2)</a> (optional) <a href="#">Intervention Act (V2)</a> (optional)	<a href="#">Drug Vehicle</a> (optional) <a href="#">Immunization Refusal Reason</a> (optional) <a href="#">Reaction Observation (V2)</a> (optional) <a href="#">Indication (V2)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Dispense (V2)</a> (optional) <a href="#">Instruction (V2)</a> (optional) <a href="#">Author Participation</a> (optional) <a href="#">Substance Administered Act</a> (optional) <a href="#">Immunization Medication Information (V2)</a> (required) <a href="#">Precondition for Substance Administration (V2)</a> (optional)

An Immunization Activity describes immunization substance administrations that have actually occurred or are intended to occur. Immunization Activities in "INT" mood are reflections of immunizations a clinician intends a patient to receive. Immunization Activities in "EVN" mood reflect immunizations actually received.

An Immunization Activity is very similar to a Medication Activity with some key differentiators. The drug code system is constrained to CVX codes. Administration timing is less complex. Patient refusal reasons should be captured. All vaccines administered should be fully documented in the patient's permanent medical record. Healthcare providers who administer vaccines covered by the National Childhood Vaccine Injury Act are required to ensure that the permanent medical record of the recipient indicates:

**APPENDIX A** — Date of administration

**APPENDIX B** — Vaccine manufacturer

**APPENDIX C** — Vaccine lot number

**APPENDIX D** — Name and title of the person who administered the vaccine and the address of the clinic or facility where the permanent record will reside

**APPENDIX E** — Vaccine information statement (VIS)

Date printed on the VIS Date VIS given to patient or parent/guardian.

This information should be included in an Immunization Activity when available. (Reference: [https://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/c/vis-instruct.pdf])

**Table 314: Immunization Activity (V3) Constraints Overview**

XPath	Card.	Verb	Data Type	CONF#	Value
substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.52:2015-08-01)					
@classCode	1..1	SHALL		<a href="#">1198-</a>	urn:oid:2.16.840.1.113883.5.6

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">8826</a>	(HL7ActClass) = SBADM
@moodCode	1..1	SHALL		<a href="#">1198-8827</a>	urn:oid:2.16.840.1.113883.11.20.9.18 (MoodCodeEvntInt)
@negationInd	1..1	SHALL		<a href="#">1198-8985</a>	
templateId	1..1	SHALL		<a href="#">1198-8828</a>	
@root	1..1	SHALL		<a href="#">1198-10498</a>	2.16.840.1.113883.10.20.22.4.52
@extension	1..1	SHALL		<a href="#">1198-32528</a>	2015-08-01
id	1..*	SHALL		<a href="#">1198-8829</a>	
code	0..1	MAY		<a href="#">1198-8830</a>	
statusCode	1..1	SHALL		<a href="#">1198-8833</a>	
@code	1..1	SHALL		<a href="#">1198-32359</a>	urn:oid:2.16.840.1.113883.1.1.1.15933 (ActStatus)
effectiveTime	1..1	SHALL		<a href="#">1198-8834</a>	
repeatNumber	0..1	MAY		<a href="#">1198-8838</a>	
routeCode	0..1	MAY		<a href="#">1198-8839</a>	urn:oid:2.16.840.1.113883.3.8.8.12.3221.8.7 (SPL Drug Route of Administration Terminology)
translation	0..*	SHOULD		<a href="#">1198-32960</a>	
@code	1..1	SHALL		<a href="#">1198-32970</a>	urn:oid:2.16.840.1.113762.1.4.1099.12 (Medication Route)
approachSiteCode	0..1	MAY	SET<CD>	<a href="#">1198-8840</a>	urn:oid:2.16.840.1.113883.3.8.8.12.3221.8.9 (Body Site Value Set)
doseQuantity	0..1	SHOULD		<a href="#">1198-8841</a>	
@unit	0..1	SHOULD		<a href="#">1198-8842</a>	urn:oid:2.16.840.1.113883.1.1.1.12839 (UnitsOfMeasureCaseSensitive)
administrationUnitCode	0..1	MAY		<a href="#">1198-8846</a>	urn:oid:2.16.840.1.113762.1.4.1021.30 (AdministrationUnitDoseForm)
consumable	1..1	SHALL		<a href="#">1198-8847</a>	
manufacturedProduct	1..1	SHALL		<a href="#">1198-</a>	<a href="#">Immunization Medication</a>

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">15546</a>	<a href="#">Information (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)</a>
performer	0..1	SHOULD		<a href="#">1198-8849</a>	
author	0..*	SHOULD		<a href="#">1198-31151</a>	<a href="#">Author Participation (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119)</a>
participant	0..*	MAY		<a href="#">1198-8850</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8851</a>	urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM
participantRole	1..1	SHALL		<a href="#">1198-15547</a>	<a href="#">Drug Vehicle (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24)</a>
entryRelationship	0..*	MAY		<a href="#">1198-8853</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8854</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1198-15537</a>	<a href="#">Indication (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8856</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8857</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SUBJ
@inversionInd	1..1	SHALL		<a href="#">1198-8858</a>	true
act	1..1	SHALL		<a href="#">1198-31392</a>	<a href="#">Instruction (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8860</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8861</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1198-15539</a>	<a href="#">Medication Supply Order (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8863</a>	
@typeCode	1..1	SHALL		<a href="#">1198-</a>	urn:oid:2.16.840.1.113883.5.1

XPath	Card.	Verb	Data Type	CONF#	Value
				<a href="#">8864</a>	002 (HL7ActRelationshipType) = REFR
supply	1..1	SHALL		<a href="#">1198-15540</a>	<a href="#">Medication Dispense (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8866</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8867</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS
observation	1..1	SHALL		<a href="#">1198-15541</a>	<a href="#">Reaction Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09)</a>
entryRelationship	0..1	MAY		<a href="#">1198-8988</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8989</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON
observation	1..1	SHALL		<a href="#">1198-15542</a>	<a href="#">Immunization Refusal Reason (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.53)</a>
entryRelationship	0..*	SHOULD		<a href="#">1198-31510</a>	
@typeCode	1..1	SHALL		<a href="#">1198-31511</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP
@inversionInd	1..1	SHALL		<a href="#">1198-31512</a>	true
sequenceNumber	0..1	MAY		<a href="#">1198-31513</a>	
act	1..1	SHALL		<a href="#">1198-31514</a>	<a href="#">Substance Administered Act (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118)</a>
precondition	0..*	MAY		<a href="#">1198-8869</a>	
@typeCode	1..1	SHALL		<a href="#">1198-8870</a>	urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = PRCN
criterion	1..1	SHALL		<a href="#">1198-15548</a>	<a href="#">Precondition for Substance Administration (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09)</a>

1. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 **STATIC**) (CONF:1198-8826).
2. **SHALL** contain exactly one [1..1] **@moodCode**, which **SHALL** be selected from ValueSet [MoodCodeEvnInt](#) urn:oid:2.16.840.1.113883.11.20.9.18 **STATIC** (CONF:1198-8827).
3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:1198-8985).  
Note: Use negationInd="true" to indicate that the immunization was not given.
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1198-8828) such that it
  - a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.52" (CONF:1198-10498).
  - b. **SHALL** contain exactly one [1..1] **@extension**="2015-08-01" (CONF:1198-32528).
5. **SHALL** contain at least one [1..\*] **id** (CONF:1198-8829).
6. **MAY** contain zero or one [0..1] **code** (CONF:1198-8830).  
Note: SubstanceAdministration.code is an optional field. Per HL7 Pharmacy Committee, "this is intended to further specify the nature of the substance administration act. To date the committee has made no use of this attribute". Because the type of substance administration is generally implicit in the routeCode, in the consumable participant, etc., the field is generally not used and there is no defined value set.
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1198-8833).
  - a. This statusCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [ActStatus](#) urn:oid:2.16.840.1.113883.1.11.15933 **DYNAMIC** (CONF:1198-32359).
8. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1198-8834).

In "INT" (intent) mood, the repeatNumber defines the number of allowed administrations. For example, a repeatNumber of "3" means that the substance can be administered up to 3 times. In "EVN" (event) mood, the repeatNumber is the number of occurrences. For example, a repeatNumber of "3" in a substance administration event means that the current administration is the 3rd in a series.

9. **MAY** contain zero or one [0..1] **repeatNumber** (CONF:1198-8838).
10. **MAY** contain zero or one [0..1] **routeCode**, which **SHALL** be selected from ValueSet [SPL Drug Route of Administration Terminology](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.7 **DYNAMIC** (CONF:1198-8839).
  - a. The routeCode, if present, **SHOULD** contain zero or more [0..\*] **translation** (CONF:1198-32960) such that it
    - i. **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet [Medication Route](#) urn:oid:2.16.840.1.113762.1.4.1099.12 **DYNAMIC** (CONF:1198-32970).
11. **MAY** contain zero or one [0..1] **approachSiteCode**, where the code **SHALL** be selected from ValueSet [Body Site Value Set](#) urn:oid:2.16.840.1.113883.3.88.12.3221.8.9 **DYNAMIC** (CONF:1198-8840).
12. **SHOULD** contain zero or one [0..1] **doseQuantity** (CONF:1198-8841).

NOTE: The base CDA R2.0 standard requires @unit to be drawn from UCUM, and best practice is to use case sensitive UCUM units

- a. The doseQuantity, if present, **SHOULD** contain zero or one [0..1] @unit, which **SHOULD** be selected from ValueSet [UnitsOfMeasureCaseSensitive](#) urn:oid:2.16.840.1.113883.1.11.12839 **DYNAMIC** (CONF:1198-8842).
13. **MAY** contain zero or one [0..1] administrationUnitCode, which **SHALL** be selected from ValueSet [AdministrationUnitDoseForm](#) urn:oid:2.16.840.1.113762.1.4.1021.30 **DYNAMIC** (CONF:1198-8846).
14. **SHALL** contain exactly one [1..1] consumable (CONF:1198-8847).
  - a. This consumable **SHALL** contain exactly one [1..1] [Immunization Medication Information \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09) (CONF:1198-15546).
15. **SHOULD** contain zero or one [0..1] performer (CONF:1198-8849).
16. **SHOULD** contain zero or more [0..\*] [Author Participation](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.119) (CONF:1198-31151).
17. **MAY** contain zero or more [0..\*] participant (CONF:1198-8850) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="CSM" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 **STATIC**) (CONF:1198-8851).
  - b. **SHALL** contain exactly one [1..1] [Drug Vehicle](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.24) (CONF:1198-15547).
18. **MAY** contain zero or more [0..\*] entryRelationship (CONF:1198-8853) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8854).
  - b. **SHALL** contain exactly one [1..1] [Indication \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.19:2014-06-09) (CONF:1198-15537).
19. **MAY** contain zero or one [0..1] entryRelationship (CONF:1198-8856) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="SUBJ" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8857).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" True (CONF:1198-8858).
  - c. **SHALL** contain exactly one [1..1] [Instruction \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.20:2014-06-09) (CONF:1198-31392).
20. **MAY** contain zero or one [0..1] entryRelationship (CONF:1198-8860) such that it
  - a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8861).
  - b. **SHALL** contain exactly one [1..1] [Medication Supply Order \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.17:2014-06-09) (CONF:1198-15539).
21. **MAY** contain zero or one [0..1] entryRelationship (CONF:1198-8863) such that it

- a. **SHALL** contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8864).
  - b. **SHALL** contain exactly one [1..1] [Medication Dispense \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.18:2014-06-09) (CONF:1198-15540).
22. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8866) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="CAUS" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8867).
  - b. **SHALL** contain exactly one [1..1] [Reaction Observation \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.9:2014-06-09) (CONF:1198-15541).
23. **MAY** contain zero or one [0..1] **entryRelationship** (CONF:1198-8988) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8989).
  - b. **SHALL** contain exactly one [1..1] [Immunization Refusal Reason](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.53) (CONF:1198-15542).
- The following entryRelationship is used to indicate a given immunization's order in a series. The nested Substance Administered Act identifies an administration in the series. The entryRelationship/sequenceNumber shows the order of this particular administration in that series.
24. **SHOULD** contain zero or more [0..\*] **entryRelationship** (CONF:1198-31510) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1198-31511).
  - b. **SHALL** contain exactly one [1..1] @inversionInd="true" (CONF:1198-31512).
  - c. **MAY** contain zero or one [0..1] **sequenceNumber** (CONF:1198-31513).
  - d. **SHALL** contain exactly one [1..1] [Substance Administered Act](#) (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.118) (CONF:1198-31514).
25. **MAY** contain zero or more [0..\*] **precondition** (CONF:1198-8869) such that it
- a. **SHALL** contain exactly one [1..1] @typeCode="PRCN" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:1198-8870).
  - b. **SHALL** contain exactly one [1..1] [Precondition for Substance Administration \(V2\)](#) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.25:2014-06-09) (CONF:1198-15548).

**Table 315: MoodCodeEvnInt**

Value Set: MoodCodeEvnInt urn:oid:2.16.840.1.113883.11.20.9.18 (Clinical Focus: Subset of HL7 ActMood codes, constrained to represent event (EVN) and intent (INT) moods.), (Data Element Scope: ), (Inclusion Criteria: ), (Exclusion Criteria: )  This value set was imported on 4/24/2019 with a version of 20190104. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.18/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.18/expansion</a>			
Code	Code System	Code System OID	Print Name
EVN	HL7ActMood	urn:oid:2.16.840.1.113883.5.10 01	event (occurrence)
INT	HL7ActMood	urn:oid:2.16.840.1.113883.5.10 01	intent



**Table 316: SPL Drug Route of Administration Terminology**

<p>Value Set: SPL Drug Route of Administration Terminology urn:oid:2.16.840.1.113883.3.88.12.3221.8.7            (Clinical Focus: The set of route of administration concepts that may be used in structured product labeling.), (Data Element Scope: Ordered, administered, medication route), (Inclusion Criteria: Selected concepts that are descendent of C38114 as determined by the FDA. These concepts are linked to "SPL Drug Route of Administration Terminology (Code C54455)" by Concept_In_Subset.), (Exclusion Criteria: As determined by the FDA those routes not to be used in SPL (navigational concepts, etc.))</p> <p>This value set was imported on 6/29/2019 with a version of 20190604.</p> <p>Value Set Source:  <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.7/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.7/expansion</a></p>			
Code	Code System	Code System OID	Print Name
C132737	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Intracanalicular Route of Administration
C28161	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Intramuscular Route of Administration
C38192	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Auricular Route of Administration
C38193	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Buccal Route of Administration
C38194	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Conjunctival Route of Administration
C38197	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Dental Route of Administration
C38198	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Soft Tissue Route of Administration
C38200	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Administration via Hemodialysis
C38203	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Iontophoresis Route of Administration
C38205	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Endocervical Route of Administration
...			

**Table 317: Body Site Value Set**

<p>Value Set: Body Site Value Set urn:oid:2.16.840.1.113883.3.88.12.3221.8.9            (Clinical Focus: All SNOMED CT anatomic structures, locations, abnormal structures that can be considered to describe an anatomical site.),(Data Element Scope: data element describing body location),(Inclusion Criteria: SNOMED CT concepts descending from the Anatomical Structure (91723000) or Acquired body structure (body structure) (280115004) or Anatomical site notations for tumor staging (body structure) (258331007) or Body structure, altered from its original anatomical structure (morphologic abnormality) (118956008) or Physical anatomical entity (body structure) (91722005)),(Exclusion Criteria: none)</p> <p>This value set was imported on 6/24/2019 with a version of 20190420.</p> <p>Value Set Source:  <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.9/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.9/expansion</a></p>			
Code	Code System	Code System OID	Print Name
10013000	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Lateral meniscus structure (body structure)
10024003	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of base of lung (body structure)
10025002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of base of phalanx of index finger (body structure)
10026001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of ventral spinocerebellar tract of pons (body structure)
10036009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of nucleus pulposus of intervertebral disc of eighth thoracic vertebra (body structure)
10042008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of intervertebral foramen of fifth thoracic vertebra (body structure)
10047002	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of transplanted lung (body structure)
1005009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Entire diaphragmatic lymph node (body structure)
10052007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Male structure (body structure)
10056005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Structure of ophthalmic nerve (body structure)
...			

**Table 318: UnitsOfMeasureCaseSensitive**

Value Set: UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 (Clinical Focus: Common UCUM units. This value set is based on the Common UCUM set.),(Data Element Scope: unit of measure),(Inclusion Criteria: all valid UCUM units case sensitive),(Exclusion Criteria: )  This value set was imported on 6/29/2019 with a version of 20180509. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12839/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12839/expansion</a>			
Code	Code System	Code System OID	Print Name
%	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent
%{Hb}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent hemoglobin
%{RBCs}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent of red blood cells
%{WBCs}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent of white blood cells
%{abnormal}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent abnormal
%{activity}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent activity
%{aggregation}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent aggregation
%{at_60_min}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent at 60 minute
%{bacteria}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent of bacteria
%{basal_activity}	UCUM	urn:oid:1.3.6.1.4.1.12009.10.3.1	percent basal activity
...			

**Table 319: AdministrationUnitDoseForm**

<p>Value Set: AdministrationUnitDoseForm urn:oid:2.16.840.1.113762.1.4.1021.30</p> <p>(Clinical Focus: Codes that are similar to a drug "form" but limited to those used as units when describing drug administration when the drug item is a physical form that is continuous and therefore not administered as an "each" of the physical form, or is not using standard measurement units (inch, ounce, gram, etc.) This set does not include unit concepts that mimic "physical form" concepts that can be counted using "each", such as tablet, bar, lozenge, packet, etc.),(Data Element Scope: C-CDA substanceAdministration/administrationUnitCode),(Inclusion Criteria: Unit concepts describing drug administration when the drug item is not administered as an "each" of the physical form, or is not using standard measurement units (inch, ounce, gram, etc.) Concepts have a "Concept_In_Subset" relationship to "SPL Unit of Presentation Terminology" (Code C87300)),(Exclusion Criteria: This set does not include unit concepts that mimic "physical form" concepts that can be counted using "each", such as tablet, bar, lozenge, packet, etc. Does not include standard measurement units (inch, ounce, gram, etc.))</p> <p>This value set was imported on 6/24/2019 with a version of 20190604.</p> <p>Value Set Source:  <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.30/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.30/expansion</a></p>			
Code	Code System	Code System OID	Print Name
C102405	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Capful Dosing Unit
C122629	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Actuation Dosing Unit
C122631	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Dropperful Dosing Unit
C25397	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Application Unit
C44278	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Unit
C48491	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Metric Drop
C48501	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Inhalation Dosing Unit
C48536	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Scoopful Dosing Unit
C48537	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Spray Dosing Unit
C65060	NCI Thesaurus (NCIt)	urn:oid:2.16.840.1.113883.3.26.1.1	Puff Dosing Unit
...			

**Table 320: Medication Route**

Value Set: Medication Route urn:oid:2.16.840.1.113762.1.4.1099.12 (Clinical Focus: Terms used to describe the path by which a substance is taken into the body.),(Data Element Scope: ),(Inclusion Criteria: All SNOMED_CT values descending from 284009009 route of administration value),(Exclusion Criteria: )  This value set was imported on 6/25/2019 with a version of 20190521. Value Set Source: <a href="https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.12/expansion">https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.12/expansion</a>			
Code	Code System	Code System OID	Print Name
10547007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Otic route (qualifier value)
12130007	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Intra-articular route (qualifier value)
127490009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Gastrostomy route (qualifier value)
127491008	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Jejunostomy route (qualifier value)
127492001	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Nasogastric route (qualifier value)
1611000175109	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Sublesional route (qualifier value)
16857009	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Vaginal route (qualifier value)
26643006	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Oral route (qualifier value)
34206005	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Subcutaneous route (qualifier value)
37161004	SNOMED CT	urn:oid:2.16.840.1.113883.6.96	Rectal route (qualifier value)
...			

**Figure 161: Immunization Activity (V3) Example**

```
<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">
  <!-- ** Immunization activity ** -->
  <templateId root="2.16.840.1.113883.10.20.22.4.52" extension="2015-08-01" />
  <id root="e6f1ba43-c0ed-4b9b-9f12-f435d8ad8f92" />
  <statusCode code="completed" />
  <effectiveTime value="19981215" />
  <routeCode code="C28161" codeSystem="2.16.840.1.113883.3.26.1.1"
codeSystemName="National Cancer Institute (NCI) Thesaurus" displayName="Intramuscular
injection" />
  <doseQuantity value="50" unit="ug" />
  <consumable>
    <manufacturedProduct classCode="MANU">
      <!-- ** Immunization medication information ** -->
      <templateId root="2.16.840.1.113883.10.20.22.4.54" extension="2014-06-09" />
      <manufacturedMaterial>
        <code code="33" codeSystem="2.16.840.1.113883.12.292"
displayName="Pneumococcal polysaccharide vaccine" codeSystemName="CVX">
          <translation code="854981" displayName="Pneumovax 23 (Pneumococcal
vaccine polyvalent) Injectable Solution" codeSystemName="RxNORM"
codeSystem="2.16.840.1.113883.6.88" />
        </code>
        <lotNumberText>1</lotNumberText>
      </manufacturedMaterial>
      <manufacturerOrganization>
        <name>Health LS - Immuno Inc.</name>
      </manufacturerOrganization>
    </manufacturedProduct>
  </consumable>
  <performer>
    <assignedEntity>
      <id root="2.16.840.1.113883.19.5.9999.456" extension="2981824" />
      <addr>
        <streetAddressLine>1007 Health Drive</streetAddressLine>
        <city>Portland</city>
        <state>OR</state>
        <postalCode>99123</postalCode>
        <country>US</country>
      </addr>
      <telecom use="WP" value="tel: +(555)-555-1030" />
      <assignedPerson>
        <name>
          <given>Harold</given>
          <family>Hippocrates</family>
        </name>
      </assignedPerson>
      <representedOrganization>
        <id root="2.16.840.1.113883.19.5.9999.1394" />
        <name>Good Health Clinic</name>
        <telecom use="WP" value="tel: +(555)-555-1030" />
        <addr>
          <streetAddressLine>1007 Health Drive</streetAddressLine>
          <city>Portland</city>
          <state>OR</state>
          <postalCode>99123</postalCode>
          <country>US</country>
        </addr>
      </representedOrganization>
    </assignedEntity>
  </performer>
</substanceAdministration>
```

```

        </addr>
    </representedOrganization>
</assignedEntity>
</performer>
</substanceAdministration>

```

### 3.42 Immunization Medication Information (V2)

[manufacturedProduct: identifier  
urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09 (open)]

**Table 321: Immunization Medication Information (V2) Contexts**

Contained By:	Contains:
<a href="#">Planned Supply (V2)</a> (optional) <a href="#">Medication Supply Order (V2)</a> (optional) <a href="#">Medication Dispense (V2)</a> (optional) <a href="#">Planned Immunization Activity</a> (required) <a href="#">Immunization Activity (V3)</a> (required)	

The Immunization Medication Information represents product information about the immunization substance. The vaccine manufacturer and vaccine lot number are typically recorded in the medical record and should be included if known.