```
            </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 319: Immunization Medication Information (V2) Contexts

Contained By:	Contains:
Planned Supply (V2) (optional) Medication Supply Order (V2) (optional) Medication Dispense (V2) (optional) Planned Immunization Activity (required) Immunization Activity (V3) (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.

Table 320: Immunization Medication Information (V2) Constraints Overview

XPath	Card.	Verb	Data Type	CONF#	Value
manufacturedProduct (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.54:2014-06-09)					
@classCode	1..1	SHALL		1098-9002	urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU
templateId	1..1	SHALL		1098-9004	
@root	1..1	SHALL		1098-10499	2.16.840.1.113883.10.20.22.4.54
@extension	1..1	SHALL		1098-32602	2014-06-09
id	0..*	MAY		1098-9005	
manufacturedMaterial	1..1	SHALL		1098-9006	
code	1..1	SHALL		1098-9007	urn:oid:2.16.840.1.113762.1.4.1010.6 (CVX Vaccines Administered Vaccine Set)
translation	0..*	MAY		1098-31543	urn:oid:2.16.840.1.113762.1.4.1010.8 (Vaccine Clinical Drug)
translation	0..*	MAY		1098-31881	
lotNumberText	0..1	SHOULD		1098-9014	
manufacturerOrganization	0..1	SHOULD		1098-9012	

1. **SHALL** contain exactly one [1..1] **@classCode**="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 **STATIC**) (CONF:1098-9002).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1098-9004) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.54" (CONF:1098-10499).
   b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1098-32602).
3. **MAY** contain zero or more [0..*] **id** (CONF:1098-9005).
4. **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:1098-9006).
   a. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code**, which **SHALL** be selected from ValueSet **CVX Vaccines Administered Vaccine Set** urn:oid:2.16.840.1.113762.1.4.1010.6 **DYNAMIC** (CONF:1098-9007).
      i. This code **MAY** contain zero or more [0..*] **translation**, which **MAY** be selected from ValueSet **Vaccine Clinical Drug** urn:oid:2.16.840.1.113762.1.4.1010.8 **DYNAMIC** (CONF:1098-31543).
      ii. This code **MAY** contain zero or more [0..*] **translation** (CONF:1098-31881).

lotNumberText should be included if known. It may not be known for historical immunizations, planned immunizations, or refused/deferred immunizations.

b. This manufacturedMaterial **SHOULD** contain zero or one [0..1] **lotNumberText** (CONF:1098-9014).

5. **SHOULD** contain zero or one [0..1] **manufacturerOrganization** (CONF:1098-9012).

Table 321: CVX Vaccines Administered Vaccine Set

Value Set: CVX Vaccines Administered Vaccine Set urn:oid:2.16.840.1.113762.1.4.1010.6

(Clinical Focus: CVX vaccine concepts that represent actual vaccines types, including those that are historical record of a vaccine administered where the exact formulation is unknown. This does not include the identifiers for CVX codes that are administrative codes or never active codes. Available at http://www2a.cdc.gov/vaccines/iis/iisstandards/vaccines.asp?rpt=cvx),(Data Element Scope: Vaccine representation),(Inclusion Criteria: Any CVX code with "CVX status" (VSAC Property) = Active, Inactive, Non-US except those noted in exclusions),(Exclusion Criteria: CVX codes that have a CVX "status" of either "Pending" or "Never Active" AND CVX codes with CVX "Nonvaccine" property = True.)

This value set was imported on 6/24/2019 with a version of 20190415.
Value Set Source:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.6/expansion

Code	Code System	Code System OID	Print Name
01	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	diphtheria, tetanus toxoids and pertussis vaccine
02	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	trivalent poliovirus vaccine, live, oral
03	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	measles, mumps and rubella virus vaccine
04	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	measles and rubella virus vaccine
05	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	measles virus vaccine
06	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	rubella virus vaccine
07	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	mumps virus vaccine
08	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	hepatitis B vaccine, pediatric or pediatric/adolescent dosage
09	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	tetanus and diphtheria toxoids, adsorbed, preservative free, for adult use (2 Lf of tetanus toxoid and 2 Lf of diphtheria toxoid)
10	CDC Vaccine Code (CVX)	urn:oid:2.16.840.1.113883.12.292	poliovirus vaccine, inactivated
...			

Table 322: Vaccine Clinical Drug

Value Set: Vaccine Clinical Drug urn:oid:2.16.840.1.113762.1.4.1010.8

(Clinical Focus: Administrable vaccine medication formulations represented using either a "generic" or "brand-specific" concept.),(Data Element Scope: vaccine medication),(Inclusion Criteria: Currently Active RxNorm clinical drug concepts that have the a mapped CVX code. Limit to SBD or SCD TTY.),(Exclusion Criteria: Any drug not meeting the inclusion criteria)

This value set was imported on 6/29/2019 with a version of 20190620.
Value Set Source:
https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.8/expansion

Code	Code System	Code System OID	Print Name
1099936	RxNorm	urn:oid:2.16.840.1.113883.6.88	Adenovirus Type 4 Vaccine Live 32000 UNT Delayed Release Oral Tablet
1099940	RxNorm	urn:oid:2.16.840.1.113883.6.88	Adenovirus Type 7 Vaccine Live 32000 UNT Delayed Release Oral Tablet
1190916	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML diphtheria toxoid vaccine, inactivated 4 UNT/ML / tetanus toxoid vaccine, inactivated 10 UNT/ML Injection [Tenivac]
1190919	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML diphtheria toxoid vaccine, inactivated 4 UNT/ML / tetanus toxoid vaccine, inactivated 10 UNT/ML Prefilled Syringe [Tenivac]
1244205	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML diphtheria toxoid vaccine, inactivated 50 UNT/ML / tetanus toxoid vaccine, inactivated 10 UNT/ML Injection
1292435	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.65 ML Varicella-Zoster Virus Vaccine Live (Oka-Merck) strain 29800 UNT/ML Injection [Zostavax]
1292443	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML Measles Virus Vaccine Live, Enders' attenuated Edmonston strain 2000 UNT/ML / Mumps Virus Vaccine Live, Jeryl Lynn Strain 40000 UNT/ML / Rubella Virus Vaccine Live (Wistar RA 27-3 Strain) 2000 UNT/ML / Varicella-Zoster Virus

1292459	RxNorm	urn:oid:2.16.840.1.113883.6.88	0.5 ML Varicella-Zoster Virus Vaccine Live (Oka-Merck) strain 2700 UNT/ML Injection [Varivax]
			Vaccine Live (Oka-Merck) strain 20000 UNT/ML Injection [ProQuad]
1292828	RxNorm	urn:oid:2.16.840.1.113883.6.88	Yellow-Fever Virus Vaccine, 17D-204 strain 4000 UNT/ML Injectable Suspension [YF-Vax]
1298819	RxNorm	urn:oid:2.16.840.1.113883.6.88	influenza A-California-7-2009-(H1N1)v-like virus vaccine 158000000 UNT/ML Nasal Spray
...			

Figure 162: Immunization Medication Information (V2) Example

```
<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>
```

3.43 Immunization Refusal Reason

[observation: identifier urn:oid:2.16.840.1.113883.10.20.22.4.53 (open)]

Table 323: Immunization Refusal Reason Contexts

Contained By:	Contains:
Immunization Activity (V3) (optional)	

The Immunization Refusal Reason documents the rationale for the patient declining an immunization.