HL7 v2						Condition (IF True)			HL7 FHIR				Comments
Sort Order	Identifier	Syntax	Name	Cardinality - Min	Cardinality - Max	Computable ANTLR	Computable FHIRPath	Narrative	Primary Target	Segment Map	References		
1	VXU_V04.MSH	MSH	Message Header	1	1				Bundle	MSH[Bundle]			
1	VXU_V04.MSH	MSH	Message Header Segment	1	1				MessageHeader[1]	MSH[MessageHeader]			Processing of the MSH segment results in the creation of a new MessageHeader resource
1	VXU_V04.MSH	MSH	Message Header Segment	1	1			If there is a source in MSH-4, or known based on the configuration.	Provenance[1]	MSH[Provenance-Source]	Provenance[1].target.reference=Bundle.id; Provenance[1].target.reference=MessageHeader[1].id		If the FHIR transformation does not yield a FHIR message, but only a set of resource (APIs, repository, etc.) than one should consider attaching this Provenance resource instance to the relevant FHIR resources generated.
1	VXU_V04.MSH	MSH	Message Header Segment	1	1				Provenance[2]	MSH[Provenance-Transformation]	Provenance[2].target.reference=Bundle.id		If the FHIR transformation does not yield a FHIR Bunlde, but only a set of resource (APIs, repository, etc.) than one should consider attaching this Provenance resource instance to the relevant FHIR resources generated.
2	VXU_V04.SFT	[{ SFT }]	Software	0	-1			If the software does represent not the original source system	Provenance[1].entity.v	SFT[Device]	Provenance[1].entity.what.reference=Device.id Provenance[1].entity.role="derivation"		
2	VXU_V04.SFT	[{ SFT }]	Software	0	-1			If the software represents the original source system	Provenance[1].entity.v	SFT[Device]	Provenance[1].entity.what.reference=Device.id Provenance[1].entity.role="source"		
3	VXU_V04.UAC	[UAC]	User Authentication Credential	0	1								
4	VXU_V04.PID	PID	Patient Identification Segment	1	1				Patient[1]	PID[Patient]			Processing of the PID segment results in the creation of a new Patient resource
4	VXU_V04.PID	PID	Patient Identification Segment	1	1	IF PID-33 AND PID-34 VALUED		One may drop PID-33 from the condition if PID-34 Last Update Facility is still sufficient without a date.	Provenance[4]	PID[Provenance-Patie	Provenance.target.reference=Patient[1].id		
5	VXU_V04.PD1	[PD1]	Additional Demographics	0	1				Patient[1]	PD1[Patient]			Incorporate PD1 content into the Patient created from the PID segment.
5	VXU_V04.PD1	[PD1]	Additional Demographics	0	1	IF PD1-7 VALUED			Observation[3]	PD1[Observation-Livi	Observation[3].subject.reference=Patient[1].id		
6	VXU_V04.NK1	[{ NK1 }]	Next of Kin/Associated Parties	0	-1				RelatedPerson[1]	NK1[RelatedPerson]	RelatedPerson.patient.reference=Patient[PID].id		Typically, each NK1 will be translated to either a new RelatedPerson resource or added as a new occurrence of Patient.contact, but it's possible to insert the NK1 data into both structures.
6	VXU_V04.NK1	[{ NK1 }]	Next of Kin/Associated Parties	0	-1				Patient[1]	NK1[Patient]			
7	VXU_V04.ARV	[{ ARV }]	Access Restrictions	0	-1								
8	VXU_V04.PATIENT_VISIT	[	--- PATIENT_VISIT begin	0	1								
8.1	VXU_V04.PATIENT_VISIT.PV1	PV1	Patient Visit	1	1			Only if the system wants to know about the encounter related to the immunization event	Encounter[1]	PV1[Encounter]	Encounter.subject.reference=Patient[PID].id		Processing of the PV1 segment results in the creation of a new Encounter resource
8.1	VXU_V04.PATIENT_VISIT.PV1	PV1	Patient Visit	1	1	IF PV1-43 VALUED			Basic	PV1[Basic-Encounter]	Basic.extension-EncounterHistory.subject.reference=Patient[1].id		
8.1	VXU_V04.PATIENT_VISIT.PV1	PV1	Patient Visit	1	1				Patient[1]	PV1[Patient]			
8.1	VXU_V04.PATIENT_VISIT.PV1	PV1	Patient Visit	1	1	IF PV1-20 VALUE			Coverage[1]	PV1[Coverage]	Coverage.beneficiary.reference=Patient[1].id		
8.2	VXU_V04.PATIENT_VISIT.PV2	[PV2]	Patient Visit – Additional Info	0	1				Encounter[1]	PV2[Encounter]			Incorporate PV2 content into the Encounter created from the PV1 segment.
8.3	VXU_V04.PATIENT_VISIT.ARV	[{ ARV }]	Access Restrictions	0	-1								
8.4	/VXU_V04.PATIENT_VISIT	]	--- PATIENT_VISIT end										
9	VXU_V04.GT1	[{ GT1 }]	Guarantor	0	-1								
10	VXU_V04.INSURANCE	[{	--- INSURANCE begin	0	-1								
10.1	VXU_V04.INSURANCE	IN1	Insurance	1	1								Processing of the IN1 segment results in the creation of a new Coverage resource
10.2	VXU_V04.INSURANCE	[IN2]	Insurance Additional Information	0	1								Incorporate IN2 content into the Coverage created from the IN1 segment.
10.3	VXU_V04.INSURANCE	[IN3]	Insurance Additional Information	0	1								Incorporate IN3 content into the Coverage created from the IN1 segment.
10.4	/VXU_V04.INSURANCE	}]	--- INSURANCE end										
11	VXU_V04.PERSON_OBSERVATION	[{	--- PERSON_OBSERVATION begin	0	-1								
11.1	VXU_V04.PERSON_OBSERVATION.OBX	OBX	Observation/Result	1	1	IF OBX-5 LST.count LESS THAN OR EQUALS 1 OR OBX-2 IS "NA"			Observation[1]	OBX[Observation]	Observation[1].subject.reference=Patient[1].id		
11.1	VXU_V04.PERSON_OBSERVATION.OBX	OBX	Observation/Result	1	1	IF OBX-5 LST.count GREATER THAN 1 AND OBX-2 IS NOT "NA"			Observation[1]	OBX[Observation-Con	Observation[1].subject.reference=Patient[1].id		Note that when OBX-5 repeats, the standard mapping is to use Observation.component (see OBX[Observation-Component] map) rather than creating separate Observation instances. However, we are aware that some profiles and implementation guides do separate the OBX into multiple observations depending on the OBX-2 value. This is an example of a non-standard interpretation as the OBX should have been separated into multiple OBX segments to start. Please consider the local profiles and implementation guides on how to manage these variants.
11.2	VXU_V04.PERSON_OBSERVATION.PRT	[{ PRT }]	Participation (for Observation)	0	-1	IF PRT-10 VALUED			Device[1]	PRT[Device]	Observation[1].device.reference=Device.id		
11.2	VXU_V04.PERSON_OBSERVATION.PRT	[{ PRT }]	Participation (for Observation)	0	-1	IF PRT-9 VALUED OR IF PRT-14 VALUED			Observation[1]	PRT[Observation-Location]			At this time we don't know of a use case for sending a location PRT to a patient level observations. We've provided a mapping from PRT to Location but not way to link it to other resources in the Bundle. If there is a known use case, please comment on it so that we can develop a solution.
11.2	VXU_V04.PERSON_OBSERVATION.PRT	[{ PRT }]	Participation (for Observation)	0	-1	IF PRT-5 VALUED			PractitionerRole[1]	PRT[PractitionerRole]	Observation.performer.reference=PractitionerRole[1].id		
11.3	VXU_V04.PERSON_OBSERVATION.NTE	[{ NTE }]	Notes (Regarding Patient Observa	0	-1				Observation[1].note	NTE[ServiceRequest]			
11.4	/VXU_V04.PERSON_OBSERVATION	}]	--- PERSON_OBSERVATION end										
12	VXU_V04.ORDER	[{	--- ORDER begin	0	-1								
12.1	VXU_V04.ORDER.ORC	ORC	Common Order	1	1				Immunization[1]	ORC[Immunization]	Immunzation.patient.reference=Patient[1].id		Processing of each ORC segment results in the creation of a new Immunization resource
12.1	VXU_V04.ORDER.ORC	ORC	Common Order	1	1			Only if the system wants to know about the order that lead to the immunization event	ServiceRequest[1]	ORC[ServiceRequest]	ServiceRequest.subject.reference=Patient[1].id		Processing of each ORC segment results in the creation of a new ServiceRequest resource if the receiving system wants to know about the order that lead to the immunization event
12.2	VXU_V04.ORDER.PRT	[{PRT}]	Participation (for ORC)	0	-1	IF PRT-4.1 EQUALS "OP" AND PRT-4.3 EQUALS "HL70443"	(element("4.1")="OP") and(element("4.3")="HL70443")		PractitionerRole[2]	PRT[PractitionerRole]	Immunization.performer.actor.reference=PractitionerRole[2].id		Processing of each PRT segment typically results in the creation of a new Practitioner or PractitionerRole resource. The decision between creating a Practitioner or PractitionerRole resource may depend on the availability of data related to the practitioner's role elsewhere in the message. It may be possible to reuse a Practitioner resource in the bundle created from somewhere else in the bundle rather than creating a new resource for each PRT segment (eg, the same administering practictioner resource could be pointed to from multiple order segment groups) - if an implementer decides to do this, the system must be certain that it's the same person (same name, ID, etc) potentially even playing the same role (if the bundle uses PractitionerRole in addition to Practitioner).
12.2	VXU_V04.ORDER.PRT	[{PRT}]	Participation (for ORC)	0	-1	IF PRT-4.1 EQUALS "OP" AND PRT-4.3 EQUALS "HL70443"	(element("4.1")="OP") and(element("4.3")="HL70443")		Immunization[1].performer.function.coding.code="OP"				
12.2	VXU_V04.ORDER.PRT	[{PRT}]	Participation (for ORC)	0	-1	IF PRT-4.1 EQUALS "OP" AND PRT-4.3 EQUALS "HL70443"	(element("4.1")="OP") and(element("4.3")="HL70443")		Immunization[1].performer.function.coding.system="http://terminology.hl7.org/CodeSystem/v2-0443"				
12.2	VXU_V04.ORDER.PRT	[{PRT}]	Participation (for ORC)	0	-1	IF PRT-4.1 EQUALS "AP" AND PRT-4.3 EQUALS "HL70443"	(element("4.1")="AP") and(element("4.3")="HL70443")		PractitionerRole[3]	PRT[PractitionerRole]	Immunization.performer.actor.reference=PractitionerRole[3].id		
12.2	VXU_V04.ORDER.PRT	[{PRT}]	Participation (for ORC)	0	-1	IF PRT-4.1 EQUALS "AP" AND PRT-4.3 EQUALS "HL70443"	(element("4.1")="AP") and(element("4.3")="HL70443")		Immunization[1].performer.function.coding.code="AP"				
12.2	VXU_V04.ORDER.PRT	[{PRT}]	Participation (for ORC)	0	-1	IF PRT-4.1 EQUALS "AP" AND PRT-4.3 EQUALS "HL70443"	(element("4.1")="AP") and(element("4.3")="HL70443")		Immunization[1].performer.function.coding.system="http://terminology.hl7.org/CodeSystem/v2-0443"				
12.3	VXU_V04.ORDER.TIMING	[{	--- TIMING begin	0	-1								
12.3.1	VXU_V04.ORDER.TIMING.TQ1	TQ1	Timing/Quantity	1	1								
12.3.2	VXU_V04.ORDER.TIMING.TQ2	[{ TQ2 }]	Timing/Quantity Order Sequence	0	-1								
12.3.3	/VXU_V04.ORDER.TIMING	}]	--- TIMING end										
12.4	VXU_V04.ORDER.RXA	RXA	Pharmacy Administration Segme	1	1				Immunization[1]	RXA[Immunization]			Incorporate RXA content into the Immunization created from the ORC segment in the same segment group.
12.5	VXU_V04.ORDER.RXR	[RXR]	Pharmacy Route	0	1				Immunization[1]	RXR[Immunization]			Incorporate RXR content into the Immunization created from the ORC segment in the same segment group.
12.6	VXU_V04.ORDER.OBSERVATION	[{	--- OBSERVATION begin	0	-1								

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12.6.1	VXU_V04.ORDER.OBSERVATION.OBX	OBX	Observation/Result	1	1	IF OBX-5 LST.count LESS THAN OR EQUALS 1 AND OBX-2 IS "NA"		Some observations about the immunization may map to elements within the Immuniation resource rather than an independent Observation resource. For example, funding source, patient eligibility and educational material are often sent as OBX segments but map to Immunization elements. Specific guidance on how to map, e.g., the US CDC implementation guide on immunizations, will be provided separately at a future time TBD.	Observation[2]	OBX[Observation]	Observation[2].subject.reference=Patient[1].id; Observation[2].partOf.reference=Immunization[1].id		
12.6.1	VXU_V04.ORDER.OBSERVATION.OBX	OBX	Observation/Result	1	1	IF OBX-5 LST.count GREATER THAN 1 AND OBX-2 IS NOT "NA"		Some observations about the immunization may map to elements within the Immuniation resource rather than an independent Observation resource. For example, funding source, patient eligibility and educational material are often sent as OBX segments but map to Immunization elements. Specific guidance on how to map, e.g., the US CDC implementation guide on immunizations, will be provided separately at a future time TBD.	Observation[2]	OBX[Observation-Con	Observation[2].subject.reference=Patient[1].id; Observation[2].partOf.reference=Immunization[1].id		
12.6.2	VXU_V04.ORDER.OBSERVATION.PRT	[{ PRT }]	Participation (for Observation)	0	-1	IF PRT-10 VALUED			Device[2]	PRT[Device]	Observation[1].device.reference=Device.id		
12.6.2	VXU_V04.ORDER.OBSERVATION.PRT	[{ PRT }]	Participation (for Observation)	0	-1	IF PRT-9 VALUED OR IF PRT-14 VALUED			Observation[2]	PRT[Observation-Location]			
12.6.2	VXU_V04.ORDER.OBSERVATION.PRT	[{ PRT }]	Participation (for Observation)	0	-1	IF PRT-5 VALUED			PractitionerRole[4]	PRT[PractitionerRole]	Observation[2].performer.reference=PractitionerRole[1].id		
12.6.3	VXU_V04.ORDER.OBSERVATION.NTE	[{ NTE }]	Notes (Regarding Immunization)	0	-1				Observation[2].note	NTE[ServiceRequest]			
12.6.4	/VXU_V04.ORDER.OBSERVATION	}]	--- OBSERVATION end										
12.7	/VXU_V04.ORDER	}]	--- ORDER end										