

HL7 VXU Test Cases Checklist

Version history

Version	Date	Notes
1.0	05/05/2023	

Scope

This guide provides HL7 VXU test cases that your organization may use for testing data elements and requirements. Test data will not be used by the CIR for accessing data quality. However, creating test data may be useful for your organization and vendor. CIR interoperability staff will review two weeks of real patient data. Test cases in this document will cover data requirements for all vaccination programs and Centers for Medicare and Medicaid Services (CMS) participation. Test cases in this document cover elements CIR interoperability staff will look for in real patient data submitted.

Test Cases

VXU Testing Checklist	MSH-10 Value of Test Messages	CIR Testing Criteria	Results	Tips for HL7 testing
Test Case 1. Newly administered immunizations for all patients	VACCINE FUNDING SOURCE – Ability to send an administered vaccine message for patients participating in public vaccine programs (Vaccines for Children/VFC, Vaccines for Adults, COVID-19 vaccine, mpox) with the Vaccine Funding Source CIR accepted values.			
		Submit a test patient with a newly administered vaccine where the immunization inventory is Publicly Funded Unspecified , HL7 value of 'VXC50'	Pass/Fail	OBX-5.1 should contain 'VXC50' in the VXUs.
		Submit a test patient with a newly administered vaccine where the immunization inventory is Publicly Funded VFC , HL7 value of 'VXC51'	Pass/Fail	OBX-5.1 should contain 'VXC51' in the VXUs.
		Submit a test patient with a newly administered vaccine where the immunization inventory is Publicly Funded Non-VFC , HL7 value of 'VXC52'	Pass/Fail	OBX-5.1 should contain 'VXC52' in the VXUs.
		Submit a test patient with a newly administered vaccine where the immunization inventory is Privately Funded , HL7 value of 'PHC70'	Pass/Fail	OBX-5.1 should contain 'PHC70' in the VXUs.
	SUBSTANCE LOT NUMBER, EXPIRATION DATE, MANUFACTURER NAME – Ability to send an administered vaccine message with substance lot numbers, expiration date, and manufacturer (MVX) code.			
		Submit a test patient with a newly administered vaccine with the substance lot number, expiration date, and manufacturer name	Pass/Fail	RXA-15 should contain the Vaccine Lot number. RXA-16.1 should contain the Expiration date. RXA-17.1 should contain the Manufacturer name.
	VACCINE ADMINISTERED AMOUNT – Ability to send an administered vaccine message with valid administered dosage amount and units.			
		Submit a test patient with a newly administered vaccine and valid administered dosage amount and units	Pass/Fail	RXA-6 should contain Administered Amount. RXA-7.1 should contain Administered Units.
	NDC/CVX CODES - At least one of the scenarios should be functional, if participating and incentivized program than NDC codes usage should be functional. CIR accepts Sale & Use and NDC-10 & NDC-11.			
		Submit a test patient with newly administered vaccine and with Only CVX codes	Pass/Fail	RXA-5.3 should contain only CVX Code value.
		Submit a test patient with newly administered vaccine and with Only NDC codes	Pass/Fail	RXA-5.6 should contain only NDC Code value.
		Submit a test patient with newly administered vaccine and both CVX and NDC codes	Pass/Fail	RXA-5.3 should contain CVX value and RXA-5.6 should corresponding NDC value.

VXU Testing Checklist	MSH-10 Value of Test Messages	CIR Testing Criteria	Results	Tips for HL7 testing	
Test Case 2. All patients historical and new immunizations	HISTORICAL VACCINE MESSAGES - Ability to send a historical vaccine, administered elsewhere, but recorded in the patient's EHR chart with administered location populated (RXA-11.4). This is one key difference with the national CDC standard.				
		Submit a test patient with a historical vaccine administered elsewhere or by another provider outside of organization	Pass/Fail	RXA-11.4 should contain 'Administered location'. The CIR differs here from the CDC standard. The CIR requires this field to be populated for historical messages. This should be the assigned CIR facility code that reported the vaccination.	
	PHONE NUMBERS & EMAIL – Ability to send a newly administered vaccine or vaccine administered elsewhere for both pediatric patients, ages 18 years and younger, and adult patients, ages 19 and older, with Telecom Use code and Telecom equipment type for cell phone or home phone. (It is advised to collect and report cell phone number and/or email for vaccine credentialing).				
		Submit a test patient with a newly administered vaccine with a primary cell phone or home phone	Pass/Fail	PID-13.2 should contain Primary cell phone or home phone number or both.	
		Submit a test patient with newly administered vaccine with no home or cell phone to elicit warning	Pass/Fail	Phone numbers mapped to 000^0000000 will also elicit a bad format error.	
		Submit a test patient with a newly administered vaccine with email address	Pass/Fail	PID-13.4 should contain email address.	
	RACE – Ability to send newly administered vaccine or administered elsewhere for test patients with different race categories.				
		Submit a test patient with a historically or newly administered vaccine with "Other" race category ('2131-1')	Pass/Fail	PID-10.1 should contain 'Other' for Race (2131-1).	
		Submit a test patient with a historically or newly administered vaccine with "Prefer not to answer/Refused to Answer/Asked but no answer" race category ('PNTA' or 'PHC1175 or 'ASKU')	Pass/Fail	PID-10.1 should contain ' 'PNTA' or 'PHC1175 or 'ASKU' for Race.	
		Submit a test patient with a historical or newly administered vaccine with race "Unknown" ('UNK')	Pass/Fail	PID-10.1 should contain 'Unknown' for Race.	
		Submit a test patient with a newly or historically administered vaccine with "Two or more" race category ('TOMR')	Pass/Fail	PID-10.1 should contain 'Two or more' for Race.	
	ETHNICITY – Ability to send VXU messages for different ethnicity categories.			<i>Attach screenshot</i>	
		Submit a test patient with a historically or newly administered vaccine with "Prefer not to answer/Refuse to Answer/Asked but no answer" race category ('PNTA' or 'PHC1175 or 'ASKU')	Pass/Fail	PID-10.1 should contain ' 'PNTA' or 'PHC1175 or 'ASKU' for Race.	
		Submit a test patient with ethnicity non - Hispanic	Pass/Fail	PID-22.1 should contain 'non-Hispanic'.	
		Submit a test patient with ethnicity Hispanic	Pass/Fail	PID-22.1 should contain 'Hispanic'.	

VXU Testing Checklist	MSH-10 Value of Test Messages	CIR Testing Criteria	Results	Tips for HL7 testing
Test Case 3. VFC vaccinations	VACCINE FUNDING PROGRAM ELIGIBILITY – Ability to send administered vaccine message based on CIR IG standards for pediatric patients, ages 18 years and younger, with the following VFC CIR accepted values:			
		Submit a test patient 18 years old or younger with a newly administered vaccine where the patient’s VFC eligibility is Not VFC eligible, HL7 value of ‘V01’	Pass/Fail	OBX-5.1 should contain 'V01'.
		Submit a test patient 18 years old or younger with a newly administered vaccine where the patient’s VFC eligibility is Medicaid/Medicaid Managed Care, HL7 value of ‘V02’	Pass/Fail	OBX-5.1 should contain 'V02'.
		Submit a test patient 18 years old or younger with a newly administered vaccine where the patient’s VFC eligibility is Uninsured, HL7 value of ‘V03’	Pass/Fail	OBX-5.1 should contain 'V03'.
		Submit a test patient 18 years old or younger with a newly administered vaccine where the patient’s VFC eligibility is American Indian/Alaskan Native, HL7 value of ‘V04’	Pass/Fail	OBX-5.1 should contain 'V04'.
		Submit a test patient 18 years old or younger with a newly administered vaccine where the patient’s VFC eligibility is VFC eligible-Federally Qualified Health Center Patient, HL7 value of ‘V05’	Pass/Fail	OBX-5.1 should contain 'V05'.
		Submit a test patient 18 years old or younger with a newly administered vaccine where the patient’s VFC eligibility is VFC eligibility- Local-specific eligibility/CHIP, HL7 value of ‘V07’ or ‘V22’	Pass/Fail	OBX-5.1 should contain 'V07'/'V22'. May not need to map both V07 and V22. Both values are mapped to Child health plus program in the CIR.
		Submit a test patient 18 years old or younger with a newly administered vaccine where the patient’s VFC eligibility is eligible for 317 funding, HL7 value of ‘V23’	Pass/Fail	OBX-5.1 should contain 'V23'.

VXU Testing Checklist	MSH-10 Value of Test Messages	CIR Testing Criteria	Results	Tips for HL7 testing
Test Case 4. All pediatric vaccinations	NEXT OF KIN – Ability to create VXU messages based on CIR IG standards for pediatric patients, ages 18 and younger, for both new administrations and historical immunizations.			<i>Note: The CIR accepts more relationship values. Please refer to User-defined Table 0063 - Relationship</i>
		Submit a test patient 18 years old or younger, newly administered vaccine with a Next of Kin relationship, HL7 value of 'MTH', mother	Pass/Fail	NK1-3.1 should contain 'MTH'.
		Submit a test patient 18 years old or younger, newly administered vaccine with a Next of Kin relationship, HL7 value of 'FTH', father	Pass/Fail	NK1-3.1 should contain 'FTH'.
		Submit a test patient 18 years old or younger, newly administered vaccine with a with a Next of Kin relationship, HL7 value of 'GRD', guardian	Pass/Fail	NK1-3.1 should contain 'GRD'.

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Test Case 5. COVID-19 vaccinations	COVID-19 Vaccines – Ability to create VXU messages for a COVID-19 vaccination with the correct CVX, NDC, MVX mapping.			
		Submit a test patient with a newly administered COVID vaccine where the manufacturer is Moderna for the bivalent vaccine	Pass/Fail	The bivalent CVX code is 229 for 6 +. And 230 for 6 mos to <6 yrs.
		Submit a test patient with a newly administered COVID vaccine where the manufacturer is Pfizer for the bivalent vaccine	Pass/Fail	The bivalent booster CVX code is 300 for 12 +, CVX code 301 for 5 yrs to 11 yrs, and CVX code 302 for 6 mos to 4yrs.
		Submit a test patient with a newly administered COVID vaccine where the manufacturer is Novavax for the primary series	Pass/Fail	Novavax CVX code is 211 for 18+. One dose completes the primary series.

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Test Case 6. Adult vaccinations	ADULT PROTECTION INDICATOR – Ability to create VXU messages based on CIR IG standards for adult patients, ages 19 years and older who received newly administered vaccine (EXCEPT public health emergency vaccines) for both consent values below:				
		Submit a test patient 19 years or older, newly administered vaccine where the patient does not give their consent to Submit, Protection indicator HL7 value of 'Y'	Pass/Fail	PD1-12 should contain 'Y'. Some systems may not be able to provide this.	
		Submit a test patient 19 years or older, newly administered vaccine where the patient gives their consent to Submit, Protection indicator HL7 value of 'N'	Pass/Fail	PD1-12 should contain 'N'.	
		Submit QBP message from facility and verify that CIR Response (RSP) does return vaccine information on patient with Protection indicator HL7 value of 'Y'	Pass/Fail		
Test Case 7. Sending organization	SENDING ORGANIZATION & ASSIGNING AUTHORITY - Correct value configured in the PID 3.4 and MSH-22 for VXU.				
		Submit a test patient with PID 3.4 AND MSH-22 populated with the administered location CIR facility code	Pass/Fail	PID 3.4 AND MSH-22 should contain same value.	
Test Case 8. Optional pediatric evidence of immunity (not administered vaccine messages)	HISTORY of DISEASE as EVIDENCE of IMMUNITY – Ability to create VXU messages based on CIR IG standards for pediatric patients that have a history of immunity				
		Submit a test patient 18 years old or under with a history of Varicella as evidence of immunity, HL7 value of '38907003'	Pass/Fail	OBX-3.1 should contain '38907003'.	
	SEROLOGICAL EVIDENCE of IMMUNITY – Ability to create VXU messages based on CIR IG standards for pediatric patients that have serological evidence of immunity			<i>Note: Non administered vaccine messages should have RXA-20 populated with 'NA'</i>	
		Submit a test patient 18 years old or younger with serological evidence of immunity for Hepatitis A, HL7 value of '278971009^Hepatitis A immune'	Pass/Fail	OBX-5.1 should contain '278971009^Hepatitis A immune'.	
		Submit a test patient 18 years old or younger with serological evidence of immunity for Hepatitis B, HL7 value of '271511000^Hepatitis B immune'	Pass/Fail	OBX-5.1 should contain '271511000^Hepatitis B immune'.	
		Submit a test patient 18 years old or younger with serological evidence of immunity for Measles, HL7 value of '371111005^Measles immune'	Pass/Fail	OBX-5.1 should contain '371111005^Measles immune'.	
		Submit a test patient 18 years old or younger with serological evidence of immunity for Mumps, HL7 value of '371112003^Mumps immune'	Pass/Fail	OBX-5.1 should contain '371112003^Mumps immune'.	
		Submit a test patient 18 years old or younger with serological evidence of immunity for Rubella, HL7 value of '278968001^Rubella immune'	Pass/Fail	OBX-5.1 should contain '278968001^Rubella immune'.	
	Submit a test patient 18 years old or younger with serological evidence of immunity for Varicella, HL7 value of '371113008 Varicella immune'	Pass/Fail	OBX-5.1 should contain '371113008 Varicella immune'.		

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Test Case 9. Optional data elements for all patients	MOTHER'S MAIDEN NAME, MULTIPLE BIRTH ORDER, PATIENT STATUS, PATIENT DEATH INDICATOR, PATIENT SOGI			
		Submit a test patient with mother's maiden name.	Pass/Fail	PID-6.2 should contain value.
		Submit a test patient with multiple birth order is 'Y' and the order number.	Pass/Fail	PID-24 should contain value 'Y' and PID-25 should contain the order number.
		Submit a test patient with active ('A') status indicator (PD1-16) and date (PD1-17)	Pass/Fail	PD1-16 should contain 'A' for Immunization Registry Status.
		Submit a test patient with a not deceased ('N') death indicator (PID-30)	Pass/Fail	PID-30 should contain 'N'.
Test Case 10. Vaccine updates and deletions	VACCINE UPDATE - Ability to send a vaccine update for a newly administered vaccine (Example: Correcting lot number.)			
		Submit a vaccine update for a previously reported newly administered vaccine	Pass/Fail	RXA-21 should be 'U'.
	VACCINE DELETION - Ability to send a vaccine deletion for a newly administered vaccine.			
	Submit a test patient with a vaccine deletion for a newly administered vaccine	Pass/Fail	RXA-21 should be 'D'.	

VXU Testing Checklist	MSH-10 Value of Test Messages	CIR Testing Criteria	Results	Tips for HL7 testing
Test Case 12. Smoke testing	SMOKE TESTING - Ability to Send 2 weeks of Production VXU message in test environment.			
		Submit a 2 weeks of production VXU message successfully sent in Test environment.	Pass/Fail	
Test Case 13. Nursery dept testing	NURSERY DEPARTMENT TESTING - Rejection on Hep B dose on generic baby name. Required for nursery departments only.			
		Submit rejection is returned when Hep B dose administered on an infant/baby with generic name is submitted.	Pass/Fail	Baby names examples: Infant Baby Baby girl BabyBoy Lastname
Test Case 14. Multiple administering locations	MULTIPLE ADMINISTERING LOCATIONS - For organizations with more than one administering location only.			
		Submit a vaccine administration for all administering locations	Pass/Fail	

Sample HL7 VXU Message

HL7 VXU Example
MSH ^~\& testEMR 9009Q00 20210117191434-0500 VXU^V04^VXU_V04 A123FD138F0001 T 2.5.1 ER AL Z22^CDCPHINVS 9009Q00 PID 1 432080^^^9009Q00^MR TestPt^Hedwig^^^^L TestMom^Hagrid^^^^M 19980101 F 2076-8^Native Hawaiiin or Other Pacific Islander^CDCREC 42-09 28 ST^4A^Hogwarts^NY^11101^USA^L ^PRN^CP^^^424^3597993 EN 2186-5^Not Hispanic or Latino^CDCREC N N PD1 N 20210101 A 20210101 NK1 1 Black^Sirius^^^^L GRD^Guardian^HL70063 1234 56th Street^^Brooklyn^NY^^L ^PRN^CP^^^123^4567890 ORC RE EMR-783274^NDA 1245292333^Immunizer^Doctor^^^^^9009Q00^^^NPI RXA 0 1 20210101 150^FLUZONE QUADRIVALENT influenza, injectable, quadrivalent, preservative free^CVX^49281-0413-10^FLUZONE QUADRIVALENT

influenza, injectable, quadrivalent, preservative free^NDC|0.5|mL^MilliLiter [SI Volume Units]^UCUM| |00^New Immunization Record^NIP001| |^^^9009Q00| | |UI865AA|20250101|PMC^Sanofi Pasteur Inc^MVX| | |CP|A
RXR|C28161^Intramuscular^NCIT|RD^Right Deltoid^HL70163
OBX|1|CE|64994-7^Vaccine funding program eligibility category^LN|1|V02^VFC eligible - Medicaid^HL70064| | | |F| | |20210101| | |VXC40^Eligibility captured at the immunization level^CDCPHINVS
OBX|2|CE|30963-3^Vaccine Funding Source^LN|1|VXC50^Public Vaccine Stock, unspecified^CDCPHINVS| | | |F| | |20210101|
ORC|RE| |EMR-783274^NDA| | | | | |1245292333^Immunizer^Doctor^^^^^^9009Q00^^^^NPI|
RXA|0|1|20210101| |207^COVID-19, mRNA, LNP-S, PF, 100 mcg/0.5 mL dose^CVX^80777-273-99^COVID-19, mRNA, LNP-S, PF, 100 mcg/ 0.5 mL dose^NDC|0.5|mL^MilliLiter [SI Volume Units]^UCUM| |01^Historical Administration^NIP001| |^^^9009Q00| | | |^^| | |CP|A
ORC|RE| |9999^NDA| | | | | |1245292333^Immunizer^Doctor^^^^^^9009Q00^^^^NPI|
RXA|0|1|20160223| |998^no vaccine administered^CVX|999| | | |^^^9009Q00| | | | |NA|A|
OBX|1|CE|75505-8^Disease with presumed immunity^LN|1|278968001^Serology confirmed rubella^SCT| | | |F| | |20210101|
OBX|2|CE|76691-5^Gender Identity^LN|1|NB^Non-Binary^CIR| | | |F| | |20210101|

Story board and more HL7 examples may be found in Appendix B of the [CIR IG](#).

Segment	Name	Values
MSH-1	Field Separator	
MSH-2	Encoding Characters	^~\&
MSH-3.1	Sending Application:Namespace ID	testEMR
MSH-4.1	Sending Facility:Namespace ID	9009Q00
MSH-7.1	Date/Time Of Message:Time	20210117191434-0500
MSH-9.1	Message Type:Message Code	VXU
MSH-9.2	Message Type:Trigger Event	V04
MSH-9.3	Message Type:Message Structure	VXU_V04
MSH-10	Message Control ID	A123FD138F0001
MSH-11.1	Processing ID:Processing ID	T
MSH-12.1	Version ID:Version ID	2.5.1
MSH-15	Accept Acknowledgment Type	ER
MSH-16	Application Acknowledgment Type	AL
MSH-21.1	Message Profile Identifier:Entity Identifier	Z22
MSH-21.2	Message Profile Identifier:Namespace ID	CDCPHINVS
MSH-22.1	Sending Responsible Organization	9009Q00
PID-3.1	Patient Identifier List:ID Number	432080
PID-3.4.1	Patient Identifier List:Assigning Authority:Namespace ID	9009Q00
PID-3.5	Patient Identifier List:Identifier Type Code	MR
PID-5.1.1	Patient Name:Family Name:Surname	TestPt
PID-5.2	Patient Name:Given Name	Hedwig
PID-5.3	Patient Name:Second And Further Given Names Or Initials Thereof	
PID-5.7	Patient Name:Name Type Code	L
PID-6.1.1	Mother's Maiden Name:Family Name:Surname	TestMom
PID-6.2	Mother's Maiden Name:Given Name	Hagrid
PID-7.1	Date/Time of Birth:Time	19980101

PID-8	Administrative Sex	F
PID-10.1	Race:Identifier	2076-8
PID-10.2	Race:Text	Native Hawaiian or Other Pacific Islander
PID-10.3	Race:Name Of Coding System	CDCREC
PID-11.1.1	Patient Address:Street Address:Street Or Mailing Address	42-09 28 ST
PID-11.1.2	Patient Address:Street Address:Street Name	
PID-11.1.3	Patient Address:Street Address:Dwelling Number	
PID-11.2	Patient Address:Other Designation	4A
PID-11.3	Patient Address:City	Hogwarts
PID-11.4	Patient Address:State Or Province	NY
PID-11.5	Patient Address:Zip Or Postal Code	11101
PID-11.6	Patient Address: Country	US
PID-11.7	Patient Address: Address Type	L
PID-13.2	Phone Number - Home:Telecommunication Use Code	PRN
PID-13.3	Phone Number - Home:Telecommunication Equipment Type	CP
PID-13.4	Phone Number - Home:Email Address	
PID-13.6	Phone Number - Home:Area City Code	424
PID-13.7	Phone Number - Home:Local Number	3597993
PID-15.1	Primary Language:Identifier	EN
PID-15.2	Primary Language:Text	
PID-15.3	Primary Language:Name Of Coding System	
PID-22.1	Ethnic Group:Identifier	N
PID-22.2	Ethnic Group:Text	Not Hispanic or Latino
PID-22.3	Ethnic Group:Name Of Coding System	CDCREC
PID-23	Birth Place	
PID-24	Multiple Birth Indicator	N
PID-25	Birth Order	
PID-30	Patient Death Indicator	N
PD1-12	Protection Indicator	N

PD1-13	Protection Indicator Effective Date	20210101
PD1-16	Immunization Registry Status	A
PD1-17	Immunization Registry Status Effective Date	20210101
NK1-1	Set ID - NK1	1
NK1-2.1.1	Name:Family Name:Surname	Black
NK1-2.2	Name:Given Name	Sirius
NK1-2.3	Name:Second And Further Given Names Or Initials Thereof	
NK1-2.7	Name:Name Type Code	L
NK1-3.1	Relationship:Identifier	GRD
NK1-3.2	Relationship:Text	Guardian
NK1-3.3	Relationship:Name Of Coding System	HL70063
NK1-4.1.1	Address:Street Address:Street Or Mailing Address	1234 56th Street
NK1-4.3	Address:City	Brooklyn
NK1-4.4	Address:State Or Province	NY
NK1-4.7	Address:Address Type	L
NK1-5.2	Phone Number:Telecommunication Use Code	PRN
NK1-5.3	Phone Number:Telecommunication Equipment Type	CP
NK1-5.4	Phone Number:Email Address	
NK1-5.6	Phone Number:Area City Code	123
NK1-5.7	Phone Number:Local Number	4567890
NK1-6.6	Business Phone Number:Area City Code	
NK1-6.7	Business Phone Number:Local Number	
NK1-6.8	Business Phone Number:Extension	
NK1-16.1	Date/Time of Birth:Time	
ORC-1	Order Control	RE
ORC-3	Filler Order Number: Entity Identifier	EMR-783274^NDA
ORC-12.1	Ordering Provider:ID Number	1245292333
ORC-12.2.1	Ordering Provider:Family Name:Surname	Immunizer
ORC-12.3	Ordering Provider:Given Name	Doctor

ORC-12.9	Ordering Provider:Assigning Authority	9009Q00
ORC-12.13	Ordering Provider:Identifier Type Code	NPI
RXA-1	Give Sub-ID Counter	0
RXA-2	Administration Sub-ID Counter	1
RXA-3.1	Date/Time Start of Administration:Time	20210101
RXA-5.1	Administered Code:Identifier	150
RXA-5.2	Administered Code:Text	Influenza
RXA-5.3	Administered Code:Name Of Coding System	CVX
RXA-5.4	Administered Code:Alternate Identifier	49281-0413-10
RXA-5.5	Administered Code:Alternate Text	FLUZONE QUADRIVALENT influenza, injectable, quadrivalent, preservative free
RXA-5.6	Administered Code:Name Of Alternate Coding System	NDC
RXA-6	Administered Amount	0.5
RXA-7.1	Administered Units:Identifier	mL
RXA-7.2	Administered Units:Text	MilliLiter [SI Volume Units]
RXA-7.3	Administered Units:Name Of Coding System	UCUM
RXA-9.1	Administration Notes:Identifier	00
RXA-9.2	Administration Notes:Text	New Administration
RXA-9.3	Administration Notes:Name Of Coding System	NIP001
RXA-11.4.1	Administered-at Location:Facility:Namespace ID	9009Q00
RXA-15	Substance Lot Number	UI865AA
RXA-16.1	Substance Expiration Date:Time	20250101
RXA-17.1	Substance Manufacturer Name:Identifier	PMC
RXA-17.2	Substance Manufacturer Name:Text	Sanofi Pasteur Inc
RXA-17.3	Substance Manufacturer Name:Name Of Coding System	MVX
RXA-20	Completion Status	CP
RXA-21	Action Code - RXA	A
RXR-1.1	Route:Identifier	C28161
RXR-1.2	Route:Text	Intramuscular

RXR-1.3	Route:Name Of Coding System	NCIT
RXR-2.1	Administration Site:Identifier	RD
RXR-2.2	Administration Site:Text	right deltoid
RXR-2.3	Administration Site:Name Of Coding System	HL70163
OBX-1	Set ID - OBX	1
OBX-2	Value Type	CE
OBX-3.1	Observation Identifier:Identifier	64994-7
OBX-3.2	Observation Identifier:Text	Vaccine funding program eligibility category
OBX-3.3	Observation Identifier:Name Of Coding System	LN
OBX-4	Observation Sub-ID	1
OBX-5	Observation Value:Identifier	V02^VFC eligible - Medicaid^HL70064
OBX-11	Observation Result Status	F
OBX-14.1	Date/Time of the Observation:Time	20210101
OBX-17.1	Observation Method:Identifier	VXC40
OBX-17.2	Observation Method:Text	Eligibility captured at the immunization level
OBX-17.3	Observation Method:Name Of Coding System	CDCPHINVS
OBX-1	Set ID - OBX	2
OBX-2	Value Type	CE
OBX-3.1	Observation Identifier:Identifier	30963-3
OBX-3.2	Observation Identifier:Text	Vaccine Funding Source
OBX-3.3	Observation Identifier:Name Of Coding System	LN
OBX-4	Observation Sub-ID	1
OBX-5	Observation Value:Identifier	VXC50^Public Vaccine Stock, Unspecified^CDCPHINVS
OBX-11	Observation Result Status	F
OBX-14.1	Date/Time of the Observation:Time	20210101
ORC-1	Order Control	RE
ORC-3	Filler Order Number: Entity Identifier	EMR-783275^NDA
ORC-12.1	Ordering Provider:ID Number	1245292333
ORC-12.2.1	Ordering Provider:Family Name:Surname	Immunizer

ORC-12.3	Ordering Provider:Given Name	Doctor
ORC-12.9	Ordering Provider:Assigning Authority	9009Q00
ORC-12.13	Ordering Provider:Identifier Type Code	NPI
RXA-1	Give Sub-ID Counter	0
RXA-2	Administration Sub-ID Counter	1
RXA-3.1	Date/Time Start of Administration:Time	20200101
RXA-5.1	Administered Code:Identifier	207
RXA-5.2	Administered Code:Text	COVID-19, mRNA, LNP-S, PF, 100 mcg/0.5 mL dose
RXA-5.3	Administered Code:Name Of Coding System	CVX
RXA-5.4	Administered Code:Alternate Identifier	80777-273-99
RXA-5.5	Administered Code:Alternate Text	COVID-19, mRNA, LNP-S, PF, 100 mcg/0.5 mL dose
RXA-5.6	Administered Code:Name Of Alternate Coding System	NDC
RXA-6	Administered Amount	0.5
RXA-7.1	Administered Units:Identifier	mL
RXA-7.2	Administered Units:Text	MilliLiter [SI Volume Units]
RXA-7.3	Administered Units:Name Of Coding System	UCUM
RXA-9.1	Administration Notes:Identifier	01
RXA-9.2	Administration Notes:Text	Historical Administration Unspecified
RXA-9.3	Administration Notes:Name Of Coding System	NIP001
RXA-11.4.1	Administered-at Location:Facility:Namespace ID	9009Q00
RXA-20	Completion Status	CP
RXA-21	Action Code - RXA	A
ORC-1	Order Control	RE
ORC-3	Filler Order Number: Entity Identifier	9999
ORC-12.1	Ordering Provider:ID Number	1245292333
ORC-12.2.1	Ordering Provider:Family Name:Surname	Immunizer
ORC-12.3	Ordering Provider:Given Name	Doctor
ORC-12.9	Ordering Provider:Assigning Authority	9009Q00
ORC-12.13	Ordering Provider:Identifier Type Code	NPI

RXA-1	Give Sub-ID Counter	0
RXA-2	Administration Sub-ID Counter	1
RXA-3.1	Date/Time Start of Administration:Time	20160223
RXA-5.1	Administered Code:Identifier	998
RXA-5.2	Administered Code:Text	No vaccine administered
RXA-5.3	Administered Code:Name Of Coding System	CVX
RXA-6	Administered Amount	999
RXA-11.4.1	Administered-at Location:Facility:Namespace ID	9009Q00
RXA-20	Completion Status	NA
RXA-21	Action Code - RXA	A
OBX-1	Set ID - OBX	1
OBX-2	Value Type	CE
OBX-3.1	Observation Identifier:Identifier	75505-8
OBX-3.2	Observation Identifier:Text	Disease with presumed immunity
OBX-3.3	Observation Identifier:Name Of Coding System	LN
OBX-4	Observation Sub-ID	1
OBX-5	Observation Value:Identifier	278968001^Serology confirmed rubella^SCT
OBX-11	Observation Result Status	F
OBX-14.1	Date/Time of the Observation:Time	20210101
OBX-1	Set ID - OBX	2
OBX-2	Value Type	CE
OBX-3.1	Observation Identifier:Identifier	76691-5
OBX-3.2	Observation Identifier:Text	Gender Identity
OBX-3.3	Observation Identifier:Name Of Coding System	LN
OBX-4	Observation Sub-ID	1
OBX-5	Observation Value:Identifier	NB^Non-Binary^CIR
OBX-11	Observation Result Status	F
OBX-14.1	Date/Time of the Observation:Time	20210101

Table Mappings

Below is a list of all tables an EHR system should have properly mapped.

Please find the look-up tables in Appendix A of the CIR IG .	
1	Values of Administrative Sex are mapped correctly as per User-defined Table 0001 – Administrative Sex on CIR HL7 Web Service Local Implementation Guide.
2	Values of Acknowledgment Code are mapped correctly as per HL7-defined Table 0008 – Acknowledgement Code on CIR HL7 Web Service Local Implementation Guide.
3	Values of Next of Kin Relationship are mapped correctly as per User-defined Table 0063 – Relationship on CIR HL7 Web Service Local Implementation Guide.
4	Values of Financial Class are mapped correctly as per User-defined Table 0064 – Financial Class on CIR HL7 Web Service Local Implementation Guide.
5	Values of Message Type are mapped correctly as per HL7-defined Table 0076 – Message Type on CIR HL7 Web Service Local Implementation Guide.
6	Values of Accept/Application Acknowledgement conditions are mapped correctly as per HL7-defined Table 0155 – Accept/Application Acknowledgment Conditions on CIR HL7 Web Service Local Implementation Guide.
7	Values of Route of Administration are mapped correctly as per HL7-defined Table 0162 – Route of Administration on CIR HL7 Web Service Local Implementation Guide.
8	Values of Administrative Site are mapped correctly as per HL7-defined Table 0163 – Administrative Site on CIR HL7 Web Service Local Implementation Guide.
9	Values of Address Type are mapped correctly as per HL7-defined Table 0190 – Address Type on CIR HL7 Web Service Local Implementation Guide.
10	Values of Name Type are mapped correctly as per HL7-defined Table 0200 – Name Type on CIR HL7 Web Service Local Implementation Guide.
11	Values of Telecommunication Use Code are mapped correctly as per HL7-defined Table 0201 – Telecommunication Use Code on CIR HL7 Web Service Local Implementation Guide.
12	Values of Telecommunication equipment type codes are mapped correctly as per HL7-defined Table 0202 – Telecommunication Equipment Type Codes on CIR HL7 Web Service Local Implementation Guide.
13	Values of Identifier type are mapped correctly as per User-defined Table 0203 – Identifier Type on CIR HL7 Web Service Local Implementation Guide.
14	Values of Manufacturer (MVX) Codes are mapped correctly as per HL7-defined Table 0227 – Manufacturer (MVX) Codes on CIR HL7 Web Service Local Implementation Guide.
15	Values of Vaccine Administration (CVX) Codes are mapped correctly as per HL7-defined Table 0292 – Vaccine Administration (CVX) Codes on CIR HL7 Web Service Local Implementation Guide.
16	Values of Completion Status are mapped correctly as per HL7-defined Table 0322 – Completion Status on CIR HL7 Web Service Local Implementation Guide.

17	Values of Action Code are mapped correctly as per HL7-defined Table 0323 – Action Code on CIR HL7 Web Service Local Implementation Guide.
18	Values of Error Severity are mapped correctly as per HL7-defined Table 0516 – Error Severity on CIR HL7 Web Service Local Implementation Guide.
19	Values of Application Error code are mapped correctly as per User-defined Table 0533 – Application Error Code on CIR HL7 Web Service Local Implementation Guide.
20	Values of Observation Identifiers are mapped correctly as per NIP-defined Table NIP003 – Observation Identifiers on CIR HL7 Web Service Local Implementation Guide.
21	Values of History of disease as Evidence of Immunity are mapped correctly as per PHVS – History of Disease as Evidence of Immunity on CIR HL7 Web Service Local Implementation Guide.
22	Values of Immunization Funding Source are mapped correctly as per PHVS – Immunization Funding Source on CIR HL7 Web Service Local Implementation Guide.
23	Values of Priority Group are mapped correctly as per User Defined Table 0534 – Priority Group on CIR HL7 Web Service Local Implementation Guide.
24	Values of Gender Identity are mapped correctly as per User Defined Table 0535 – Gender Identity on CIR HL7 Web Service Local Implementation Guide.
25	Values of Race are mapped correctly as per HL7 and User Defined Table 0536 – Race Codes on CIR HL7 Web Service Local Implementation Guide.
26	Values of Ethnicity are mapped correctly as per HL7 and User Defined Table 0537 – Ethnicity Codes on CIR HL7 Web Service Local Implementation Guide.