ONC Certification Test Data

Immunization

Version 1.9.8

4th November 2024

Table of Contents

ONC Immunization Test Plan

This test plan is to be used for ONC Certification Testing of Health IT modules. All test cases are required to be executed. The test plan includes a set of Administered Immunization test cases (Administration Group) and a set of Query and Response test cases (Evaluated History and Forecast Group).

Test Story

Description
null

Comments
null

Pre-condition
null

Post-Condition
null

Test Objectives
null

Evaluation Criteria
null

Notes
null

1. Administration Group

The administration group is design to test: (1) the creation of a broad scope of immunization messages including support for new and historical administrations, refusals, combination vaccines, patient consent and various observations including VIS and VFC. (2) the receipt and handling of various acknowledgement messages including application accept, application error, and application warning. Test Cases consists of 2 steps: (1) creating immunization messages based on the Immunization Messaging Standard (Z22 Profile-VXU Message) and specific Test Data, and (2) receiving acknowledgment messages based on the Immunization Messaging Standard (Z23 Profile-ACK Message).

Test Story

Description
null

Comments
null

Pre-condition
null

Post-Condition
null

Test Objectives
null

Evaluation Criteria
null

Notes
null

1.1. IZ-AD-1_Admin_Child

Maximally populated child administration

Test Story

Description
A child (infant) is seen at a clinic. Historical vaccinations are recorded and new vaccines are administered and documented.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives
This test case assesses the ability of the EHR to create an administration message containing historical and new administrations for a child including next of kin, patient consent, VIS, funding source and VFC data.

Evaluation Criteria

Notes
No Note

1.1.1. IZ-AD-1.1_Send_V04_Z22

Test Step Type: SUT_INITIATOR
Tests the ability to create a valid VXU^V04 message

Test Story

Description
A two month old male infant, Russell Clinton Richardson, is brought to a clinic for a well child visit by his mother Maria Elizabeth Richardson (nee Billington) and his father John William Richardson. A clinic staff member collects basic patient demographic information including name, date of birth and sex. A clinic provider, Wilma Thomas (physician ID 654) reviews the patient's vaccination history and determines that the child previously received Hepatitis B vaccine 1 day after birth and 1 month after birth. The staff member determines that the patient needs DTaP, Hib, IPV, Rotavirus and Pneumococcal vaccinations. Because of the patient's status of Native American, he qualifies for all Vaccine For Children (VFC) supplied vaccines under the status of VFC eligible - American Indian/Alaska Native. The parents are given 5 Vaccine Information Sheets (VIS) to review. After reading them, they agree that the child should receive all the vaccinations recommended. They also agree that the data should be shared once it is incorporated into the local IIS. They indicate that reminders and recalls may be sent by any method. Appropriate doses of DTaP/Hib/IPV (Pentacel), Rotavirus (RotaTeq) and Pneumococcal (Prevnar 13) are selected from the clinic's stock of publically funded vaccines. A clinician, Lily Jackson (ID 7824) prepares and administers the doses to the patient and then enters the data into the EHR and transmits it to the IIS.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives
Create an administration message containing historical (using CVX) and new administrations (using NDC)
Support for next of kin
Support for patient consent
Support for VIS
Support for funding source
Support for VFC data.

Evaluation Criteria
Message Validation Report

Notes
For new administration messages, the vaccine is communicated using NDC codes in RXA-5 (Administered Code). For a given vaccine, one or more NDC codes may be appropriate to message. For this reason, RXA-5.1 is categorized as "Value - Test Case Fixed List" and allows for multiple valid values. The Message Content and Example Message data contain a single representative valid NDC code for example purposes.
ONC has determined that, from a regulatory/program perspective, an HIT Module cannot be required to be able to generate messages with the Vaccine Funding Source OBX segment for 2015 Edition certification testing. For certification purposes, ONC permits Testers to ignore the error notification generated by the NIST Immunization Test Suite when this segment is missing. Since the product under test will have to meet state reporting requirements when implemented, and many states require this information, it may be beneficial for HIT Modules to demonstrate support for the Vaccine Funding Source OBX segment during 2015 Edition certification testing.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator			Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NISTEHRAPP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NISTEHRFAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NISTIISAPP	Presence-Configuration
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NISTIISFAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624073733.994-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	VXU	Value-Profile Fixed
MSH-9.2	Trigger Event	V04	Value-Profile Fixed
MSH-9.3	Message Structure	VXU_V04	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-AD-1.1_Send_V04_Z22	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z22	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NISTEHRFAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		Indifferent
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code		Indifferent
MSH-22.10	Organization Identifier		Indifferent
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NISTIISFAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		Indifferent
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code		Indifferent
MSH-23.10	Organization Identifier		Indifferent

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	Value-Profile Fixed
PID-3	Patient Identifier List		
PID-3.1	ID Number	3123	Presence-Content Indifferent
PID-3.4	Assigning Authority		
PID-3.4.1	Namespace ID	NIST-MPI-1	Presence-Content Indifferent
PID-3.4.2	Universal ID		Indifferent
PID-3.4.3	Universal ID Type		Indifferent
PID-3.5	Identifier Type Code	MR	Value-Test Case Fixed
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Richardson	Presence-Content Indifferent
PID-5.2	Given Name	Russell	Presence-Content Indifferent
PID-5.3	Second and Further Given Names or Initials Thereof	Clint	Presence-Content Indifferent
PID-5.7	Name Type Code	L	Value-Test Case Fixed
PID-6	Mother's Maiden Name		
PID-6.1	Family Name		
PID-6.1.1	Surname	Billington	Presence-Content Indifferent
PID-6.7	Name Type Code	M	Value-Profile Fixed
PID-7	Date/Time of Birth		
PID-7.1	Time	20150415	Presence-Content Indifferent
PID-8	Administrative Sex	M	Value-Test Case Fixed
PID-10	Race		
PID-10.1	Identifier	1002-5	Value-Test Case Fixed
PID-10.2	Text	American Indian or Alaska Native	Presence-Test Case Proper
PID-10.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	543 Blount Drive	Presence-Content Indifferent
PID-11.2	Other Designation		Indifferent
PID-11.3	City	Bozeman	Presence-Content Indifferent
PID-11.4	State or Province	MT	Presence-Content Indifferent
PID-11.5	Zip or Postal Code	59715	Presence-Content Indifferent
PID-11.6	Country	USA	Presence-Content Indifferent
PID-11.7	Address Type	P	Value-Test Case Fixed List
PID-13	Phone Number - Home		
PID-13.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
PID-13.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
PID-13.4	Email Address		NonPresence
PID-13.6	Area/City Code	406	Presence-Content Indifferent
PID-13.7	Local Number	5557690	Presence-Content Indifferent
PID-22	Ethnic Group		
PID-22.1	Identifier	2186-5	Value-Test Case Fixed
PID-22.2	Text	Not Hispanic or Latino	Presence-Test Case Proper
PID-22.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-24	Multiple Birth Indicator	N	Value-Test Case Fixed
PID-25	Birth Order	1	Indifferent
PID-29	Patient Death Date and Time		
PID-29.1	Time		NonPresence
PID-30	Patient Death Indicator	N	Value-Test Case Fixed

PD1 : Patient Additional Demographic

Location	Data Element	Data	Categorization
PD1-11	Publicity Code		
PD1-11.1	Identifier	02	Value-Test Case Fixed
PD1-11.2	Text	Reminder/recall - any method	Presence-Test Case Proper
PD1-11.3	Name of Coding System	HL70215	Value-Profile Fixed
PD1-12	Protection Indicator	N	Value-Test Case Fixed
PD1-13	Protection Indicator Effective Date	20150624	Presence-Content Indifferent
PD1-16	Immunization Registry Status	A	Value-Test Case Fixed
PD1-17	Immunization Registry Status Effective Date	20150415	Presence-Content Indifferent
PD1-18	Publicity Code Effective Date	20150624	Presence-Content Indifferent

NK1 [*]

NK1 : Next of Kin / Associated Parties

NK1 : Next of Kin / Associated Parties

Location	Data Element	Data	Categorization
NK1-1	Set ID - NK1	1	Value-Profile Fixed
NK1-2	Name		
NK1-2.1	Family Name		
NK1-2.1.1	Surname	Richardson	Presence-Content Indifferent
NK1-2.2	Given Name	Maria	Presence-Content Indifferent
NK1-2.3	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
NK1-2.7	Name Type Code	L	Value-Test Case Fixed
NK1-3	Relationship		
NK1-3.1	Identifier	MTH	Value-Test Case Fixed
NK1-3.2	Text	Mother	Presence-Test Case Proper
NK1-3.3	Name of Coding System	HL70063	Value-Profile Fixed
NK1-4	Address		
NK1-4.1	Street Address		
NK1-4.1.1	Street or Mailing Address	543 Blount Drive	Presence-Content Indifferent
NK1-4.2	Other Designation		Indifferent
NK1-4.3	City	Bozeman	Presence-Content Indifferent
NK1-4.4	State or Province	MT	Presence-Content Indifferent
NK1-4.5	Zip or Postal Code	59715	Presence-Content Indifferent
NK1-4.6	Country	USA	Presence-Content Indifferent
NK1-4.7	Address Type	P	Value-Test Case Fixed List
NK1-5	Phone Number		
NK1-5.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
NK1-5.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
NK1-5.4	Email Address		Indifferent
NK1-5.6	Area/City Code	406	Presence-Content Indifferent
NK1-5.7	Local Number	5557690	Presence-Content Indifferent

NK1 : Next of Kin / Associated Parties

Location	Data Element	Data	Categorization
NK1-1	Set ID - NK1	2	Value-Profile Fixed
NK1-2	Name		
NK1-2.1	Family Name		
NK1-2.1.1	Surname	Richardson	Presence-Content Indifferent
NK1-2.2	Given Name	John	Presence-Content Indifferent
NK1-2.3	Second and Further Given Names or Initials Thereof	William	Presence-Content Indifferent
NK1-2.7	Name Type Code	L	Value-Test Case Fixed
NK1-3	Relationship		
NK1-3.1	Identifier	FTH	Value-Test Case Fixed
NK1-3.2	Text	Father	Presence-Test Case Proper
NK1-3.3	Name of Coding System	HL70063	Value-Profile Fixed
NK1-4	Address		
NK1-4.1	Street Address		
NK1-4.1.1	Street or Mailing Address	543 Blount Drive	Presence-Content Indifferent
NK1-4.2	Other Designation		Indifferent
NK1-4.3	City	Bozeman	Presence-Content Indifferent
NK1-4.4	State or Province	MT	Presence-Content Indifferent
NK1-4.5	Zip or Postal Code	59715	Presence-Content Indifferent
NK1-4.6	Country	USA	Presence-Content Indifferent
NK1-4.7	Address Type	P	Value-Test Case Fixed List
NK1-5	Phone Number		
NK1-5.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
NK1-5.3	Telecommunication Equipment Type	CP	Value-Test Case Fixed
NK1-5.4	Email Address		Indifferent
NK1-5.6	Area/City Code	406	Presence-Content Indifferent
NK1-5.7	Local Number	5558299	Presence-Content Indifferent

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	3140	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	38766	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	8681	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	65138	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	7491	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	79539	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		Indifferent
ORC-2.2	Namespace ID		Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	31528	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number		Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname		Indifferent
ORC-12.3	Given Name		Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof		Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID		Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code		Indifferent
ORC-12.13	Identifier Type Code		Indifferent
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		Indifferent
ORC-2.2	Namespace ID		Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	82668	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number		Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname		Indifferent
ORC-12.3	Given Name		Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof		Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID		Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code		Indifferent
ORC-12.13	Identifier Type Code		Indifferent
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	49281-0561-01	Value-Test Case Fixed List
RXA-5.2	Text	Pentacel	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	526434	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20150722	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	PMC	Value-Test Case Fixed
RXA-17.2	Text	Sanofi Pasteur	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	00006-4047-20	Value-Test Case Fixed List
RXA-5.2	Text	RotaTeq	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	2.0	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	297961	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20150916	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	MSD	Value-Test Case Fixed
RXA-17.2	Text	Merck and Co., Inc.	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	00005-1971-01	Value-Test Case Fixed List
RXA-5.2	Text	Prevnar 13	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	353480	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20150729	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	PFR	Value-Test Case Fixed
RXA-17.2	Text	Pfizer, Inc	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150416	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	45	Value-Test Case Fixed
RXA-5.2	Text	Hep B, unspecified formulation	Presence-Test Case Proper
RXA-5.3	Name of Coding System	CVX	Value-Profile Fixed
RXA-6	Administered Amount	999	Value-Test Case Fixed
RXA-7	Administered Units		
RXA-7.1	Identifier		NonPresence
RXA-7.2	Text		NonPresence
RXA-7.3	Name of Coding System		NonPresence
RXA-9	Administration Notes		
RXA-9.1	Identifier	01	Value-Test Case Fixed
RXA-9.2	Text	Historical Administration	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number		Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname		Indifferent
RXA-10.3	Given Name		Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof		Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code		Indifferent
RXA-10.13	Identifier Type Code		Indifferent
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number		Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time		Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		Indifferent
RXA-17.2	Text		Indifferent
RXA-17.3	Name of Coding System		Indifferent
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150515	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	45	Value-Test Case Fixed
RXA-5.2	Text	Hep B, unspecified formulation	Presence-Test Case Proper
RXA-5.3	Name of Coding System	CVX	Value-Profile Fixed
RXA-6	Administered Amount	999	Value-Test Case Fixed
RXA-7	Administered Units		
RXA-7.1	Identifier		NonPresence
RXA-7.2	Text		NonPresence
RXA-7.3	Name of Coding System		NonPresence
RXA-9	Administration Notes		
RXA-9.1	Identifier	01	Value-Test Case Fixed
RXA-9.2	Text	Historical Administration	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number		Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname		Indifferent
RXA-10.3	Given Name		Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof		Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code		Indifferent
RXA-10.13	Identifier Type Code		Indifferent
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number		
RXA-16	Substance Expiration Date		
RXA-16.1	Time		Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		
RXA-17.2	Text		
RXA-17.3	Name of Coding System		
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXR[*]

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	Value-Test Case Fixed
RXR-1.2	Text	Intramuscular	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	RT	Value-Test Case Fixed
RXR-2.2	Text	Right Thigh	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C38288	Value-Test Case Fixed
RXR-1.2	Text	Oral	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier		NonPresence
RXR-2.2	Text		NonPresence
RXR-2.3	Name of Coding System		NonPresence

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	Value-Test Case Fixed
RXR-1.2	Text	Intramuscular	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	LT	Value-Test Case Fixed
RXR-2.2	Text	Left Thigh	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

OBX[*]

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC50	Value-Test Case Fixed
OBX-5.2	Text	Public	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V04	Value-Test Case Fixed
OBX-5.2	Text	VFC Eligible - American Indian/Alaska Native	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300017211210806	Value-Test Case Fixed
OBX-5.2	Text	Polio Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	5	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	4	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300006611210806	Value-Test Case Fixed
OBX-5.2	Text	Haemophilus Influenzae type b (Hib) Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	6	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	4	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	7	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	5	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300003511210806	Value-Test Case Fixed
OBX-5.2	Text	DTaP (Diphtheria, Tetanus, Pertussis) Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	8	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	5	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC50	Value-Test Case Fixed
OBX-5.2	Text	Public	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V04	Value-Test Case Fixed
OBX-5.2	Text	VFC Eligible - American Indian/Alaska Native	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300019611211015	Value-Test Case Fixed
OBX-5.2	Text	Rotavirus Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC50	Value-Test Case Fixed
OBX-5.2	Text	Public	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V04	Value-Test Case Fixed
OBX-5.2	Text	VFC Eligible - American Indian/Alaska Native	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300049311230512	Value-Test Case Fixed
OBX-5.2	Text	Pneumococcal Conjugate Vaccine (PCV13_PCV15_PCV20) VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

Test Data Specification

Patient Information

Element	Data
Patient Name	Russell Clint Richardson
Mother's Maiden Name	Billington
ID Number	3123
Date/Time of Birth	04/15/2015
Administrative Sex	Male
Patient Address	543 Blount Drive Bozeman MT 59715 USA
Local Number	(406)555-7690
Race	American Indian or Alaska Native
Ethnic Group	Not Hispanic or Latino
Multiple Birth Indicator	No
Birth Order	1

Immunization Registry Information

Element	Data
Immunization Registry Status	Active
Immunization Registry Status Effective Date	04/15/2015
Publicity Code	Reminder/recall - any method
Publicity Code Effective Date	06/24/2015
Protection Indicator	No
Protection Indicator Effective Date	06/24/2015

Guardian or Responsible Party[*]

Guardian or Responsible Party

Element	Data
Name	Maria Elizabeth Richardson
Relationship	Mother
Address	543 Blount Drive Bozeman MT 59715 USA
Phone Number	(406)555-7690

Guardian or Responsible Party

Element	Data
Name	John William Richardson
Relationship	Father
Address	543 Blount Drive Bozeman MT 59715 USA
Phone Number	(406)555-8299

Vaccine Administration Information[*]

Vaccine Administration Information

Element	Data
Administered Vaccine	Pentacel
Date/Time Start of Administration	06/24/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	526434
Substance Expiration Date	07/22/2015
Substance Manufacturer Name	Sanofi Pasteur
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Intramuscular
Administration Site	Right Thigh
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Public
Vaccine Funding Program Eligibility	VFC Eligible - American Indian/Alaska Native
Document Type	Polio Vaccine VIS
Date Vis Presented	06/24/2015
Document Type	Haemophilus Influenzae type b (Hib) Vaccine VIS
Date Vis Presented	06/24/2015
Document Type	DTaP (Diphtheria, Tetanus, Pertussis) Vaccine VIS
Date Vis Presented	06/24/2015

Vaccine Administration Information

Element	Data
Administered Vaccine	RotaTeq
Date/Time Start of Administration	06/24/2015
Administered Amount	2.0
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	297961
Substance Expiration Date	09/16/2015
Substance Manufacturer Name	Merck and Co., Inc.
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Oral
Administration Site	
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Public
Vaccine Funding Program Eligibility	VFC Eligible - American Indian/Alaska Native
Document Type	Rotavirus Vaccine VIS
Date Vis Presented	06/24/2015

Vaccine Administration Information

Element	Data
Administered Vaccine	Prevnar 13
Date/Time Start of Administration	06/24/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	353480
Substance Expiration Date	07/29/2015
Substance Manufacturer Name	Pfizer, Inc
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Intramuscular
Administration Site	Left Thigh
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Public
Vaccine Funding Program Eligibility	VFC Eligible - American Indian/Alaska Native
Document Type	Pneumococcal Conjugate Vaccine (PCV13_PCV15_PCV20) VIS
Date Vis Presented	06/24/2015

Vaccine Administration Information

Element	Data
Administered Vaccine	Hep B, unspecified formulation
Date/Time Start of Administration	04/16/2015
Administered Amount	999
Administered Units	
Administration Notes	Historical Administration
Administering Provider	
Substance Lot Number	
Substance Expiration Date	
Substance Manufacturer Name	
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	
Administration Site	
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	

Vaccine Administration Information

Element	Data
Administered Vaccine	Hep B, unspecified formulation
Date/Time Start of Administration	05/15/2015
Administered Amount	999
Administered Units	
Administration Notes	Historical Administration
Administering Provider	
Substance Lot Number	
Substance Expiration Date	
Substance Manufacturer Name	
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	
Administration Site	
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	

1.1.2. IZ-AD-1.2_Receive_ACK_Z23

Test Step Type: TA_RESPONDER
Tests the ability to consume a valid ACK message

Test Story

Description
The IIS returns a positive acknowledgement message indicating that no errors were found during the course of filing the message.

Comments
No Comments

Pre-condition
A VXU message is generated by the EHR.

Post-Condition
No PostCondition

Test Objectives
No Test Objectives

Evaluation Criteria
The acknowledgement message is consumed by the system responsible for the content of the administration message without error.

Notes
Important note regarding the MSH-10 and MSA-2: The NIST acknowledgment message is predefined and is based on the VXU message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the ACK message. The NIST ACK test message can be modified such that MSA-2 matches MSH-10 of the VXU message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IIS APP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IIS FAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHR APP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHR FAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624073734.034-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	ACK	
MSH-9.2	Trigger Event	V04	
MSH-9.3	Message Structure	ACK	
MSH-10	Message Control ID	NIST-IZ-AD-1.2_Receive_ACK_Z23	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z23	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IIS FAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code		
MSH-22.10	Organization Identifier		
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHR FAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code		
MSH-23.10	Organization Identifier		

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AA	
MSA-2	Message Control ID	NIST-IZ-AD-1.1_Send_V04_Z22	

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Return an Acknowledgement	
Test Case ID	IZ-AD-1_Admin_Child
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass / Fail
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the health information technology's ability to receive and process a Return an Acknowledgement Z23 message (in response to a "Send Unsolicited Immunization Update Using a VXU" Z22 message) in which NO Error is returned in the message.

The exact wording and format of the display in the health information technology (HIT) is not in-scope for this test.

Return an Acknowledgement
The receiving HIT system being tested shall process the Z23 ACK message correctly; a positive notification indicating that the ACK message was processed correctly need not be made visible in the system.

1.2. IZ-AD-2_Admin_Adult

Adult administration

Test Story

Description
An adult is seen at a clinic. Historical vaccinations are recorded and new vaccines are administered and documented.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives
This test case assesses the ability of the EHR to create an administration message for an adult containing historical and new administrations including VIS and not eligible VFC.

Evaluation Criteria

Notes
No Note

1.2.1. IZ-AD-2.1_Send_V04_Z22

Test Step Type: SUT_INITIATOR
Tests the ability to create a valid VXU^V04 message

Test Story

Description
A 32 year old female, Elise Wong, visits a clinic for a well woman visit. A clinic staff member collects basic patient demographic information including name, date of birth and sex. A clinic provider, Wilma Thomas (physician ID 654) reviews the patient's vaccination history and determines that Elise has received her influenza vaccinations on 10/12/2014 and 11/12/2013, but is in need of a tetanus booster. Because of the patient's age she does not qualify for Vaccine For Children (VFC) supplied vaccine. Elise is given the appropriate Vaccine Information Sheet (VIS) to review. After reading it, she agrees to receive the recommended vaccination. She also agrees that the data should be shared once it is incorporated into the local IIS. She indicates that reminders and recalls may be sent by any method. An appropriate dose of Td (TENIVAC) is selected from the clinic's stock of privately funded vaccines. A clinician, Lily Jackson (ID 7824) prepares and administers the doses to the patient and then enters the data into the EHR and transmits it to the IIS.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives
Support for a "not eligible" VFC. Support for both phone number and e-mail.

Evaluation Criteria
Message Validation Report

Notes
For new administration messages, the vaccine is communicated using NDC codes in RXA-5 (Administered Code). For a given vaccine, one or more NDC codes may be appropriate to message. For this reason, RXA-5.1 is categorized as "Value - Test Case Fixed List" and allows for multiple valid values. The Message Content and Example Message data contain a single representative valid NDC code for example purposes. ONC has determined that, from a regulatory/program perspective, an HIT Module cannot be required to be able to generate messages with the Vaccine Funding Source OBX segment for 2015 Edition certification testing. For certification purposes, ONC permits Testers to ignore the error notification generated by the NIST Immunization Test Suite when this segment is missing. Since the product under test will have to meet state reporting requirements when implemented, and many states require this information, it may be beneficial for HIT Modules to demonstrate support for the Vaccine Funding Source OBX segment during 2015 Edition certification testing.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST EHR APP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST EHR FAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST IIS APP	Presence-Configuration
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST IIS FAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624084727.655-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	VXU	Value-Profile Fixed
MSH-9.2	Trigger Event	V04	Value-Profile Fixed
MSH-9.3	Message Structure	VXU_V04	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-AD-2.1_Send_V04_Z22	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z22	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST EHR FAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		Indifferent
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code		Indifferent
MSH-22.10	Organization Identifier		Indifferent
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST IIS FAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		Indifferent
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code		Indifferent
MSH-23.10	Organization Identifier		Indifferent

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	Value-Profile Fixed
PID-3	Patient Identifier List		
PID-3.1	ID Number	90012	Presence-Content Indifferent
PID-3.4	Assigning Authority		
PID-3.4.1	Namespace ID	NIST-MPI-1	Presence-Content Indifferent
PID-3.4.2	Universal ID		Indifferent
PID-3.4.3	Universal ID Type		Indifferent
PID-3.5	Identifier Type Code	MR	Value-Test Case Fixed
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Wong	Presence-Content Indifferent
PID-5.2	Given Name	Elise	Presence-Content Indifferent
PID-5.3	Second and Further Given Names or Initials Thereof		Indifferent
PID-5.7	Name Type Code	L	Value-Test Case Fixed
PID-6	Mother's Maiden Name		
PID-6.1	Family Name		
PID-6.1.1	Surname		Indifferent
PID-6.7	Name Type Code		Indifferent
PID-7	Date/Time of Birth		
PID-7.1	Time	19830615	Presence-Content Indifferent
PID-8	Administrative Sex	F	Value-Test Case Fixed
PID-10	Race		
PID-10.1	Identifier	2028-9	Value-Test Case Fixed
PID-10.2	Text	Asian	Presence-Test Case Proper
PID-10.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	9200 Wellington Trail	Presence-Content Indifferent
PID-11.2	Other Designation		Indifferent
PID-11.3	City	Bozeman	Presence-Content Indifferent
PID-11.4	State or Province	MT	Presence-Content Indifferent
PID-11.5	Zip or Postal Code	59715	Presence-Content Indifferent
PID-11.6	Country	USA	Presence-Content Indifferent
PID-11.7	Address Type	P	Value-Test Case Fixed List
PID-13[1]	Phone Number - Home		
PID-13[1].2	Telecommunication Use Code	PRN	Value-Test Case Fixed
PID-13[1].3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
PID-13[1].4	Email Address		NonPresence
PID-13[1].6	Area/City Code	406	Presence-Content Indifferent
PID-13[1].7	Local Number	5557896	Presence-Content Indifferent
PID-13[2]	Phone Number - Home		
PID-13[2].2	Telecommunication Use Code	NET	Value-Test Case Fixed
PID-13[2].3	Telecommunication Equipment Type		Indifferent
PID-13[2].4	Email Address	Elise.Wong@isp.com	Presence-Content Indifferent
PID-13[2].6	Area/City Code		NonPresence
PID-13[2].7	Local Number		NonPresence
PID-22	Ethnic Group		
PID-22.1	Identifier	2186-5	Value-Test Case Fixed
PID-22.2	Text	Not Hispanic or Latino	Presence-Test Case Proper
PID-22.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-24	Multiple Birth Indicator	N	Value-Test Case Fixed
PID-25	Birth Order	1	Indifferent
PID-29	Patient Death Date and Time		
PID-29.1	Time		NonPresence
PID-30	Patient Death Indicator	N	Value-Test Case Fixed

PD1 : Patient Additional Demographic

Location	Data Element	Data	Categorization
PD1-11	Publicity Code		
PD1-11.1	Identifier	02	Value-Test Case Fixed
PD1-11.2	Text	Reminder/recall - any method	Presence-Test Case Proper
PD1-11.3	Name of Coding System	HL70215	Value-Profile Fixed
PD1-12	Protection Indicator	N	Value-Test Case Fixed
PD1-13	Protection Indicator Effective Date	20150624	Presence-Content Indifferent
PD1-16	Immunization Registry Status	A	Value-Test Case Fixed
PD1-17	Immunization Registry Status Effective Date	19830615	Presence-Content Indifferent
PD1-18	Publicity Code Effective Date	20150624	Presence-Content Indifferent

ORC[*]

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	4422	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	13696	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		Indifferent
ORC-2.2	Namespace ID		Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	38760	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number		Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname		Indifferent
ORC-12.3	Given Name		Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof		Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID		Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code		Indifferent
ORC-12.13	Identifier Type Code		Indifferent
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		Indifferent
ORC-2.2	Namespace ID		Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	35508	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number		Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname		Indifferent
ORC-12.3	Given Name		Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof		Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID		Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code		Indifferent
ORC-12.13	Identifier Type Code		Indifferent
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	49281-0215-88	Value-Test Case Fixed List
RXA-5.2	Text	TENIVAC	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	315841	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20151216	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	PMC	Value-Test Case Fixed
RXA-17.2	Text	Sanofi Pasteur	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20141012	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	88	Value-Test Case Fixed
RXA-5.2	Text	influenza, unspecified formulation	Presence-Test Case Proper
RXA-5.3	Name of Coding System	CVX	Value-Profile Fixed
RXA-6	Administered Amount	999	Value-Test Case Fixed
RXA-7	Administered Units		
RXA-7.1	Identifier		NonPresence
RXA-7.2	Text		NonPresence
RXA-7.3	Name of Coding System		NonPresence
RXA-9	Administration Notes		
RXA-9.1	Identifier	01	Value-Test Case Fixed
RXA-9.2	Text	Historical Administration	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number		Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname		Indifferent
RXA-10.3	Given Name		Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof		Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code		Indifferent
RXA-10.13	Identifier Type Code		Indifferent
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number		Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time		Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		Indifferent
RXA-17.2	Text		Indifferent
RXA-17.3	Name of Coding System		Indifferent
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20131112	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	88	Value-Test Case Fixed
RXA-5.2	Text	influenza, unspecified formulation	Presence-Test Case Proper
RXA-5.3	Name of Coding System	CVX	Value-Profile Fixed
RXA-6	Administered Amount	999	Value-Test Case Fixed
RXA-7	Administered Units		
RXA-7.1	Identifier		NonPresence
RXA-7.2	Text		NonPresence
RXA-7.3	Name of Coding System		NonPresence
RXA-9	Administration Notes		
RXA-9.1	Identifier	01	Value-Test Case Fixed
RXA-9.2	Text	Historical Administration	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number		Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname		Indifferent
RXA-10.3	Given Name		Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof		Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code		Indifferent
RXA-10.13	Identifier Type Code		Indifferent
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number		Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time		Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		Indifferent
RXA-17.2	Text		Indifferent
RXA-17.3	Name of Coding System		Indifferent
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	Value-Test Case Fixed
RXR-1.2	Text	Intramuscular	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	RD	Value-Test Case Fixed
RXR-2.2	Text	Right Deltoid	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

OBX[*]

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	PHC70	Value-Test Case Fixed
OBX-5.2	Text	Private	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V01	Value-Test Case Fixed
OBX-5.2	Text	Not VFC Eligible	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300028811210806	Value-Test Case Fixed
OBX-5.2	Text	Td (Tetanus, Diphtheria) Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

Test Data Specification

Patient Information

Element	Data
Patient Name	Elise Wong
Mother's Maiden Name	
ID Number	90012
Date/Time of Birth	06/15/1983
Administrative Sex	Female
Patient Address	9200 Wellington Trail Bozeman MT 59715 USA
Local Number	(406)555-7896
Email	Elise.Wong@isp.com
Race	Asian
Ethnic Group	Not Hispanic or Latino
Multiple Birth Indicator	No
Birth Order	1

Immunization Registry Information

Element	Data
Immunization Registry Status	Active
Immunization Registry Status Effective Date	06/15/1983
Publicity Code	Reminder/recall - any method
Publicity Code Effective Date	06/24/2015
Protection Indicator	No
Protection Indicator Effective Date	06/24/2015

Vaccine Administration Information[*]

Vaccine Administration Information

Element	Data
Administered Vaccine	TENIVAC
Date/Time Start of Administration	06/24/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	315841
Substance Expiration Date	12/16/2015
Substance Manufacturer Name	Sanofi Pasteur
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Intramuscular
Administration Site	Right Deltoid
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Private
Vaccine Funding Program Eligibility	Not VFC Eligible
Document Type	Td (Tetanus, Diphtheria) Vaccine VIS
Date Vis Presented	06/24/2015

Vaccine Administration Information

Element	Data
Administered Vaccine	influenza, unspecified formulation
Date/Time Start of Administration	10/12/2014
Administered Amount	999
Administered Units	
Administration Notes	Historical Administration
Administering Provider	
Substance Lot Number	
Substance Expiration Date	
Substance Manufacturer Name	
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	
Administration Site	
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	

Vaccine Administration Information

Element	Data
Administered Vaccine	influenza, unspecified formulation
Date/Time Start of Administration	11/12/2013
Administered Amount	999
Administered Units	
Administration Notes	Historical Administration
Administering Provider	
Substance Lot Number	
Substance Expiration Date	
Substance Manufacturer Name	
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	
Administration Site	
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	

1.2.2. IZ-AD-2.2_Receive_ACK_Z23

Test Step Type: TA_RESPONDER
Tests the ability to consume a valid ACK message

Test Story

Description
The IIS returns a positive acknowledgement message indicating that no errors were found during the course of filing the message.

Comments
No Comments

Pre-condition
A VXU message is generated by the EHR.

Post-Condition
No PostCondition

Test Objectives

Evaluation Criteria
The acknowledgement message is consumed by the system responsible for the content of the administration message without error.

Notes
Important note regarding the MSH-10 and MSA-2: The NIST acknowledgment message is predefined and is based on the VXU message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the ACK message. The NIST ACK test message can be modified such that MSA-2 matches MSH-10 of the VXU message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IIS APP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IIS FAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHR APP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHR FAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624084727.669-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	ACK	
MSH-9.2	Trigger Event	V04	
MSH-9.3	Message Structure	ACK	
MSH-10	Message Control ID	NIST-IZ-AD-2.2_Receive_ACK_Z23	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z23	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IIS FAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code		
MSH-22.10	Organization Identifier		
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHR FAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code		
MSH-23.10	Organization Identifier		

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AA	
MSA-2	Message Control ID	NIST-IZ-AD-2.1_Send_V04_Z22	

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Return an Acknowledgement	
Test Case ID	IZ-AD-2_Admin_Adult
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass / Fail
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the health information technology's ability to receive and process a Return an Acknowledgement Z23 message (in response to a "Send Unsolicited Immunization Update Using a VXU" Z22 message) in which NO Error is returned in the message.

The exact wording and format of the display in the health information technology (HIT) is not in-scope for this test.

Return an Acknowledgement
The receiving HIT system being tested shall process the Z23 ACK message correctly; a positive notification indicating that the ACK message was processed correctly need not be made visible in the system.

1.3. IZ-AD-3_No_Consent

Child administration without consent for sharing. Also test the ability to send the patient's full first and middle names.

Test Story

Description
A child is seen at a clinic. A new vaccine is administered and documented but the information is not to shared by the IIS.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives
This test case assesses the ability of the EHR to create an administration message for a child containing a new administration but an indication that the data should not be shared. Also test the ability of the EHR to support full first and middle names.

Evaluation Criteria

Notes
No Note

1.3.1. IZ-AD-3.1_Send_V04_Z22

Test Step Type: SUT_INITIATOR
Tests the ability to create a valid VXU^V04 message

Test Story

Description
An eleven and a half year old female, Katherine Mackenzie Benton, is brought to a clinic for a third and final dose of HPV vaccine. She is accompanied by her mother Kari Michelle Benton (nee Jones). A clinic staff member collects basic patient demographic information including name, date of birth and sex. The mother is given the appropriate Vaccine Information Sheet (VIS) to review. After reading it, the mother agrees that the child should receive the HPV vaccine, but she chooses not to share the data once it is incorporated into the local IIS. She also declines any reminder or recall notifications. A clinic provider, Wilma Thomas (physician ID 654) places an order for the vaccination. While the patient is covered by insurance, the plan does not cover this vaccination and she qualifies for Vaccine For Children (VFC) supplied vaccines under the status of VFC eligible - Underinsured. An appropriate dose of HPV (Gardasil-9) is selected from the clinic's stock of publically funded vaccines. A clinician, Lily Jackson (ID 7824) prepares and administers the dose to the patient and then enters the data into the EHR and transmits it to the IIS.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives
Support for no consent given
Support for a full middle name
Support for a long first and middle name

Evaluation Criteria
Message Validation Report

Notes
For new administration messages, the vaccine is communicated using NDC codes in RXA-5 (Administered Code). For a given vaccine, one or more NDC codes may be appropriate to message. For this reason, RXA-5.1 is categorized as "Value - Test Case Fixed List" and allows for multiple valid values. The Message Content and Example Message data contain a single representative valid NDC code for example purposes. ONC has determined that, from a regulatory/program perspective, an HIT Module cannot be required to be able to generate messages with the Vaccine Funding Source OBX segment for 2015 Edition certification testing. For certification purposes, ONC permits Testers to ignore the error notification generated by the NIST Immunization Test Suite when this segment is missing. Since the product under test will have to meet state reporting requirements when implemented, and many states require this information, it may be beneficial for HIT Modules to demonstrate support for the Vaccine Funding Source OBX segment during 2015 Edition certification testing.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator			Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NISTEHRAPP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NISTEHRFAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NISTIISAPP	Presence-Configuration
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NISTIISFAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624093847.804-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	VXU	Value-Profile Fixed
MSH-9.2	Trigger Event	V04	Value-Profile Fixed
MSH-9.3	Message Structure	VXU_V04	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-AD-3.1_Send_V04_Z22	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z22	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NISTEHRFAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		Indifferent
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code		Indifferent
MSH-22.10	Organization Identifier		Indifferent
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NISTIISFAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		Indifferent
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code		Indifferent
MSH-23.10	Organization Identifier		Indifferent

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	Value-Profile Fixed
PID-3	Patient Identifier List		
PID-3.1	ID Number	89778	Presence-Content Indifferent
PID-3.4	Assigning Authority		
PID-3.4.1	Namespace ID	NIST-MPI-1	Presence-Content Indifferent
PID-3.4.2	Universal ID		Indifferent
PID-3.4.3	Universal ID Type		Indifferent
PID-3.5	Identifier Type Code	MR	Value-Test Case Fixed
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Benton	Presence-Content Indifferent
PID-5.2	Given Name	Katherine	Presence Length-Content Indifferent
PID-5.3	Second and Further Given Names or Initials Thereof	Mackenzie	Presence Length-Content Indifferent
PID-5.7	Name Type Code	L	Value-Test Case Fixed
PID-6	Mother's Maiden Name		
PID-6.1	Family Name		
PID-6.1.1	Surname	Jones	Presence-Content Indifferent
PID-6.7	Name Type Code	M	Value-Profile Fixed
PID-7	Date/Time of Birth		
PID-7.1	Time	20031221	Presence-Content Indifferent
PID-8	Administrative Sex	F	Value-Test Case Fixed
PID-10	Race		
PID-10.1	Identifier	2106-3	Value-Test Case Fixed
PID-10.2	Text	White	Presence-Test Case Proper
PID-10.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	89 West 21st Ave	Presence-Content Indifferent
PID-11.2	Other Designation		Indifferent
PID-11.3	City	Bozeman	Presence-Content Indifferent
PID-11.4	State or Province	MT	Presence-Content Indifferent
PID-11.5	Zip or Postal Code	59715	Presence-Content Indifferent
PID-11.6	Country	USA	Presence-Content Indifferent
PID-11.7	Address Type	P	Value-Test Case Fixed List
PID-13	Phone Number - Home		
PID-13.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
PID-13.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
PID-13.4	Email Address		NonPresence
PID-13.6	Area/City Code	406	Presence-Content Indifferent
PID-13.7	Local Number	5554019	Presence-Content Indifferent
PID-22	Ethnic Group		
PID-22.1	Identifier	2186-5	Value-Test Case Fixed
PID-22.2	Text	Not Hispanic or Latino	Presence-Test Case Proper
PID-22.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-24	Multiple Birth Indicator	N	Value-Test Case Fixed
PID-25	Birth Order	1	Indifferent
PID-29	Patient Death Date and Time		
PID-29.1	Time		NonPresence
PID-30	Patient Death Indicator	N	Value-Test Case Fixed

PD1 : Patient Additional Demographic

Location	Data Element	Data	Categorization
PD1-11	Publicity Code		
PD1-11.1	Identifier	01	Value-Test Case Fixed
PD1-11.2	Text	No reminder/recall	Presence-Test Case Proper
PD1-11.3	Name of Coding System	HL70215	Value-Profile Fixed
PD1-12	Protection Indicator	Y	Value-Test Case Fixed
PD1-13	Protection Indicator Effective Date	20150624	Presence-Content Indifferent
PD1-16	Immunization Registry Status	A	Value-Test Case Fixed
PD1-17	Immunization Registry Status Effective Date	20031221	Presence-Content Indifferent
PD1-18	Publicity Code Effective Date	20150624	Presence-Content Indifferent

NK1 : Next of Kin / Associated Parties

Location	Data Element	Data	Categorization
NK1-1	Set ID - NK1	1	Value-Profile Fixed
NK1-2	Name		
NK1-2.1	Family Name		
NK1-2.1.1	Surname	Benton	Presence-Content Indifferent
NK1-2.2	Given Name	Kari	Presence-Content Indifferent
NK1-2.3	Second and Further Given Names or Initials Thereof	Michelle	Presence-Content Indifferent
NK1-2.7	Name Type Code	L	Value-Test Case Fixed
NK1-3	Relationship		
NK1-3.1	Identifier	MTH	Value-Test Case Fixed
NK1-3.2	Text	Mother	Presence-Test Case Proper
NK1-3.3	Name of Coding System	HL70063	Value-Profile Fixed
NK1-4	Address		
NK1-4.1	Street Address		
NK1-4.1.1	Street or Mailing Address	89 West 21st Ave	Presence-Content Indifferent
NK1-4.2	Other Designation		Indifferent
NK1-4.3	City	Bozeman	Presence-Content Indifferent
NK1-4.4	State or Province	MT	Presence-Content Indifferent
NK1-4.5	Zip or Postal Code	59715	Presence-Content Indifferent
NK1-4.6	Country	USA	Presence-Content Indifferent
NK1-4.7	Address Type	P	Value-Test Case Fixed List
NK1-5	Phone Number		
NK1-5.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
NK1-5.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
NK1-5.4	Email Address		Indifferent
NK1-5.6	Area/City Code	406	Presence-Content Indifferent
NK1-5.7	Local Number	5554019	Presence-Content Indifferent

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	5237	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	31309	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	00006-4119-01	Value-Test Case Fixed List
RXA-5.2	Text	GARDASIL 9	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	795441	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20151223	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	MSD	Value-Test Case Fixed
RXA-17.2	Text	Merck and Co., Inc.	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	Value-Test Case Fixed
RXR-1.2	Text	Intramuscular	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	RD	Value-Test Case Fixed
RXR-2.2	Text	Right Deltoid	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

OBX[*]

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC50	Value-Test Case Fixed
OBX-5.2	Text	Public	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V05	Value-Test Case Fixed
OBX-5.2	Text	VFC Eligible - Underinsured	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300029511210806	Value-Test Case Fixed
OBX-5.2	Text	HPV (Human Papillomavirus) Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

Test Data Specification

Patient Information

Element	Data
Patient Name	Katherine Mackenzie Benton
Mother's Maiden Name	Jones
ID Number	89778
Date/Time of Birth	12/21/2003
Administrative Sex	Female
Patient Address	89 West 21st Ave Bozeman MT 59715 USA
Local Number	(406)555-4019
Race	White
Ethnic Group	Not Hispanic or Latino
Multiple Birth Indicator	No
Birth Order	1

Immunization Registry Information

Element	Data
Immunization Registry Status	Active
Immunization Registry Status Effective Date	12/21/2003
Publicity Code	No reminder/recall
Publicity Code Effective Date	06/24/2015
Protection Indicator	Yes
Protection Indicator Effective Date	06/24/2015

Guardian or Responsible Party

Element	Data
Name	Kari Michelle Benton
Relationship	Mother
Address	89 West 21st Ave Bozeman MT 59715 USA
Phone Number	(406)555-4019

Vaccine Administration Information

Element	Data
Administered Vaccine	GARDASIL 9
Date/Time Start of Administration	06/24/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	795441
Substance Expiration Date	12/23/2015
Substance Manufacturer Name	Merck and Co., Inc.
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Intramuscular
Administration Site	Right Deltoid
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Public
Vaccine Funding Program Eligibility	VFC Eligible - Underinsured
Document Type	HPV (Human Papillomavirus) Vaccine VIS
Date Vis Presented	06/24/2015

1.3.2. IZ-AD-3.2_Receive_ACK_Z23

Test Step Type: TA_RESPONDER
Tests the ability to consume a valid ACK message

Test Story

Description
The IIS returns a positive acknowledgement message indicating that no errors were found during the course of filing the message.

Comments
No Comments

Pre-condition
A VXU message is generated by the EHR.

Post-Condition
No PostCondition

Test Objectives

Evaluation Criteria
The acknowledgement message is consumed by the system responsible for the content of the administration message without error.

Notes
Important note regarding the MSH-10 and MSA-2: The NIST acknowledgment message is predefined and is based on the VXU message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the ACK message. The NIST ACK test message can be modified such that MSA-2 matches MSH-10 of the VXU message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator		
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IIS APP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IIS FAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHR APP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHR FAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624093847.806-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	ACK	
MSH-9.2	Trigger Event	V04	
MSH-9.3	Message Structure	ACK	
MSH-10	Message Control ID	NIST-IZ-AD-3.2_Receive_ACK_Z23	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z23	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IIS FAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code		
MSH-22.10	Organization Identifier		
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHR FAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code		
MSH-23.10	Organization Identifier		

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AA	
MSA-2	Message Control ID	NIST-IZ-AD-3.1_Send_V04_Z22	

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Return an Acknowledgement	
Test Case ID	IZ-AD-3_No_Consent
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass / Fail
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the health information technology's ability to receive and process a Return an Acknowledgement Z23 message (in response to a "Send Unsolicited Immunization Update Using a VXU" Z22 message) in which NO Error is returned in the message.

The exact wording and format of the display in the health information technology (HIT) is not in-scope for this test.

Return an Acknowledgement
The receiving HIT system being tested shall process the Z23 ACK message correctly; a positive notification indicating that the ACK message was processed correctly need not be made visible in the system.

1.4. IZ-AD-4_Delete_Record

Child deleted administration

Test Story

Description
A child is seen at a clinic. A previously documented vaccination is deleted due to user error.

Comments
No Comments

Pre-condition
The IZ-AD-3_No_Consent test case has been successfully completed.

Post-Condition
No PostCondition

Test Objectives
This test case assesses the ability of the EHR to create a delete message for a previously sent administration.

Evaluation Criteria

Notes
No Note

1.4.1. IZ-AD-4.1_Send_V04_Z22

Test Step Type: SUT_INITIATOR
Tests the ability to create a valid VXU^V04 message

Test Story

Description
After administering an HPV vaccination to the eleven and a half year old female Katherine Benton the clinician, Lily Jackson (ID 7824) realizes that the vaccination was documented on the incorrect patient chart. She deletes the vaccination from the patient chart and transmits the change to the IIS.

Comments
No Comments

Pre-condition
The IZ-AD-3.1_Send_V04_Z22 test step has been successfully completed.

Post-Condition
No PostCondition

Test Objectives
Support for sending delete notification.

Evaluation Criteria
Message Validation Report

Notes
For new administration messages, the vaccine is communicated using NDC codes in RXA-5 (Administered Code). For a given vaccine, one or more NDC codes may be appropriate to message. For this reason, RXA-5.1 is categorized as "Value - Test Case Fixed List" and allows for multiple valid values. The Message Content and Example Message data contain a single representative valid NDC code for example purposes. ONC has determined that, from a regulatory/program perspective, an HIT Module cannot be required to be able to generate messages with the Vaccine Funding Source OBX segment for 2015 Edition certification testing. For certification purposes, ONC permits Testers to ignore the error notification generated by the NIST Immunization Test Suite when this segment is missing. Since the product under test will have to meet state reporting requirements when implemented, and many states require this information, it may be beneficial for HIT Modules to demonstrate support for the Vaccine Funding Source OBX segment during 2015 Edition certification testing.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST EHR APP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST EHR FAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST IIS APP	Presence-Configuration
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST IIS FAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624093847.804-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	VXU	Value-Profile Fixed
MSH-9.2	Trigger Event	V04	Value-Profile Fixed
MSH-9.3	Message Structure	VXU_V04	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-AD-4.1_Send_V04_Z22	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z22	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST EHR FAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		Indifferent
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code		Indifferent
MSH-22.10	Organization Identifier		Indifferent
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST IIS FAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		Indifferent
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code		Indifferent
MSH-23.10	Organization Identifier		Indifferent

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	Value-Profile Fixed
PID-3	Patient Identifier List		
PID-3.1	ID Number	89778	Presence-Content Indifferent
PID-3.4	Assigning Authority		
PID-3.4.1	Namespace ID	NIST-MPI-1	Presence-Content Indifferent
PID-3.4.2	Universal ID		Indifferent
PID-3.4.3	Universal ID Type		Indifferent
PID-3.5	Identifier Type Code	MR	Value-Test Case Fixed
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Benton	Presence-Content Indifferent
PID-5.2	Given Name	Katherine	Presence-Content Indifferent
PID-5.3	Second and Further Given Names or Initials Thereof	Mackenzie	Presence-Content Indifferent
PID-5.7	Name Type Code	L	Value-Test Case Fixed
PID-6	Mother's Maiden Name		
PID-6.1	Family Name		
PID-6.1.1	Surname	Jones	Presence-Content Indifferent
PID-6.7	Name Type Code	M	Value-Profile Fixed
PID-7	Date/Time of Birth		
PID-7.1	Time	20031221	Presence-Content Indifferent
PID-8	Administrative Sex	F	Value-Test Case Fixed
PID-10	Race		
PID-10.1	Identifier	2106-3	Value-Test Case Fixed
PID-10.2	Text	White	Presence-Test Case Proper
PID-10.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	89 West 21st Ave	Presence-Content Indifferent
PID-11.2	Other Designation		Indifferent
PID-11.3	City	Bozeman	Presence-Content Indifferent
PID-11.4	State or Province	MT	Presence-Content Indifferent
PID-11.5	Zip or Postal Code	59715	Presence-Content Indifferent
PID-11.6	Country	USA	Presence-Content Indifferent
PID-11.7	Address Type	P	Value-Test Case Fixed List
PID-13	Phone Number - Home		
PID-13.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
PID-13.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
PID-13.4	Email Address		NonPresence
PID-13.6	Area/City Code	406	Presence-Content Indifferent
PID-13.7	Local Number	5554019	Presence-Content Indifferent
PID-22	Ethnic Group		
PID-22.1	Identifier	2186-5	Value-Test Case Fixed
PID-22.2	Text	Not Hispanic or Latino	Presence-Test Case Proper
PID-22.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-24	Multiple Birth Indicator	N	Value-Test Case Fixed
PID-25	Birth Order	1	Indifferent
PID-29	Patient Death Date and Time		
PID-29.1	Time		NonPresence
PID-30	Patient Death Indicator	N	Value-Test Case Fixed

PD1 : Patient Additional Demographic

Location	Data Element	Data	Categorization
PD1-11	Publicity Code		
PD1-11.1	Identifier	01	Value-Test Case Fixed
PD1-11.2	Text	No reminder/recall	Presence-Test Case Proper
PD1-11.3	Name of Coding System	HL70215	Value-Profile Fixed
PD1-12	Protection Indicator	Y	Value-Test Case Fixed
PD1-13	Protection Indicator Effective Date	20150624	Presence-Content Indifferent
PD1-16	Immunization Registry Status	A	Value-Test Case Fixed
PD1-17	Immunization Registry Status Effective Date	20031221	Presence-Content Indifferent
PD1-18	Publicity Code Effective Date	20150624	Presence-Content Indifferent

NK1 : Next of Kin / Associated Parties

Location	Data Element	Data	Categorization
NK1-1	Set ID - NK1	1	Value-Profile Fixed
NK1-2	Name		
NK1-2.1	Family Name		
NK1-2.1.1	Surname	Benton	Presence-Content Indifferent
NK1-2.2	Given Name	Kari	Presence-Content Indifferent
NK1-2.3	Second and Further Given Names or Initials Thereof	Michelle	Presence-Content Indifferent
NK1-2.7	Name Type Code	L	Value-Test Case Fixed
NK1-3	Relationship		
NK1-3.1	Identifier	MTH	Value-Test Case Fixed
NK1-3.2	Text	Mother	Presence-Test Case Proper
NK1-3.3	Name of Coding System	HL70063	Value-Profile Fixed
NK1-4	Address		
NK1-4.1	Street Address		
NK1-4.1.1	Street or Mailing Address	89 West 21st Ave	Presence-Content Indifferent
NK1-4.2	Other Designation		Indifferent
NK1-4.3	City	Bozeman	Presence-Content Indifferent
NK1-4.4	State or Province	MT	Presence-Content Indifferent
NK1-4.5	Zip or Postal Code	59715	Presence-Content Indifferent
NK1-4.6	Country	USA	Presence-Content Indifferent
NK1-4.7	Address Type	P	Value-Test Case Fixed List
NK1-5	Phone Number		
NK1-5.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
NK1-5.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
NK1-5.4	Email Address		Indifferent
NK1-5.6	Area/City Code	406	Presence-Content Indifferent
NK1-5.7	Local Number	5554019	Presence-Content Indifferent

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	5237	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	31309	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	00006-4119-01	Value-Test Case Fixed List
RXA-5.2	Text	GARDASIL 9	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	795441	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20151223	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	MSD	Value-Test Case Fixed
RXA-17.2	Text	Merck and Co., Inc.	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	D	Value-Test Case Fixed

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	Value-Test Case Fixed
RXR-1.2	Text	Intramuscular	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	RD	Value-Test Case Fixed
RXR-2.2	Text	Right Deltoid	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

OBX[*]

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC50	Value-Test Case Fixed
OBX-5.2	Text	Public	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V05	Value-Test Case Fixed
OBX-5.2	Text	VFC Eligible - Underinsured	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300029511210806	Value-Test Case Fixed
OBX-5.2	Text	HPV (Human Papillomavirus) Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

Test Data Specification

Patient Information

Element	Data
Patient Name	Katherine Mackenzie Benton
Mother's Maiden Name	Jones
ID Number	89778
Date/Time of Birth	12/21/2003
Administrative Sex	Female
Patient Address	89 West 21st Ave Bozeman MT 59715 USA
Local Number	(406)555-4019
Race	White
Ethnic Group	Not Hispanic or Latino
Multiple Birth Indicator	No
Birth Order	1

Immunization Registry Information

Element	Data
Immunization Registry Status	Active
Immunization Registry Status Effective Date	12/21/2003
Publicity Code	No reminder/recall
Publicity Code Effective Date	06/24/2015
Protection Indicator	Yes
Protection Indicator Effective Date	06/24/2015

Guardian or Responsible Party

Element	Data
Name	Kari Michelle Benton
Relationship	Mother
Address	89 West 21st Ave Bozeman MT 59715 USA
Phone Number	(406)555-4019

Vaccine Administration Information

Element	Data
Administered Vaccine	GARDASIL 9
Date/Time Start of Administration	06/24/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	795441
Substance Expiration Date	12/23/2015
Substance Manufacturer Name	Merck and Co., Inc.
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Delete
Route	Intramuscular
Administration Site	Right Deltoid
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Public
Vaccine Funding Program Eligibility	VFC Eligible - Underinsured
Document Type	HPV (Human Papillomavirus) Vaccine VIS
Date Vis Presented	06/24/2015

1.4.2. IZ-AD-4.2_Receive_ACK_Z23

Test Step Type: TA_RESPONDER
Tests the ability to consume a valid ACK message

Test Story

Description
The IIS returns a positive acknowledgement message indicating that no errors were found during the course of filing the message.

Comments
No Comments

Pre-condition
A VXU message is generated by the EHR.

Post-Condition
No PostCondition

Test Objectives

Evaluation Criteria
The acknowledgement message is consumed by the system responsible for the content of the administration message without error.

Notes
Important note regarding the MSH-10 and MSA-2: The NIST acknowledgment message is predefined and is based on the VXU message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the ACK message. The NIST ACK test message can be modified such that MSA-2 matches MSH-10 of the VXU message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IIS APP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IIS FAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHR APP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHR FAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624093847.806-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	ACK	
MSH-9.2	Trigger Event	V04	
MSH-9.3	Message Structure	ACK	
MSH-10	Message Control ID	NIST-IZ-AD-4.2_Receive_ACK_Z23	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z23	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IIS FAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code		
MSH-22.10	Organization Identifier		
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHR FAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code		
MSH-23.10	Organization Identifier		

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AA	
MSA-2	Message Control ID	NIST-IZ-AD-4.1_Send_V04_Z22	

Test Data Specification

Element	Data
This information will be automatically supplied by the System	

Juror Document

Return an Acknowledgement	
Test Case ID	IZ-AD-4_Delete_Record
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass / Fail
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the health information technology's ability to receive and process a Return an Acknowledgement Z23 message (in response to a "Send Unsolicited Immunization Update Using a VXU" Z22 message) in which NO Error is returned in the message.

The exact wording and format of the display in the health information technology (HIT) is not in-scope for this test.

Return an Acknowledgement
The receiving HIT system being tested shall process the Z23 ACK message correctly; a positive notification indicating that the ACK message was processed correctly <u>need not be made visible</u> in the system.

1.5. IZ-AD-5_Refusal

Child administration with refusal. Also test multiple birth indicator.

Test Story

Description
The second child of a set of twins is seen at a clinic. New vaccinations are administered but an additional one is refused by the parents.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives
This test case assesses the ability of the EHR to create an administration message for child whose parents have refused an immunization and to support multiple birth indicator and order.

Evaluation Criteria

Notes
No Note

1.5.1. IZ-AD-5.1_Send_V04_Z22

Test Step Type: SUT_INITIATOR
Tests the ability to create a valid VXU^V04 message

Test Story

Description
A 1 year old male, Tyler Owen Banks, is brought to a clinic for a well child visit. He is accompanied by his father Karl Leonard Banks. Tyler's twin brother, born 5 minutes before Tyler, was not able to make it to the clinic. A clinic staff member collects basic patient demographic information including name, date of birth and sex. A clinic provider, Wilma Thomas (physician ID 654) reviews the patient's vaccination history and determines that the child requires Hib, Hep A, MMR and Varicella vaccinations. The child is covered by insurance and does not qualify for all Vaccine For Children (VFC) supplied vaccines. The father is given the appropriate Vaccine Information Sheets (VIS) to review. After reading them, the father agrees that the child should receive the Hib, Hep A and MMR vaccines but refuses the Varicella vaccine. He also agrees that the data should be shared once it is incorporated into the local IIS. Appropriate doses of Hib (HIBERIX), Hep A (VAQTA) and MMR (M-M-R II) are selected from the clinic's stock of privately funded vaccines. A clinician, Lily Jackson (ID 456) prepares and administers the doses to the patient and then enters the data into the EHR and transmits it to the IIS.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives
Support for an immunization refusal
Support for multiple birth indicator and order

Evaluation Criteria
Message Validation Report

Notes
For new administration messages, the vaccine is communicated using NDC codes in RXA-5 (Administered Code). For a given vaccine, one or more NDC codes may be appropriate to message. For this reason, RXA-5.1 is categorized as "Value - Test Case Fixed List" and allows for multiple valid values. The Message Content and Example Message data contain a single representative valid NDC code for example purposes. ONC has determined that, from a regulatory/program perspective, an HIT Module cannot be required to be able to generate messages with the Vaccine Funding Source OBX segment for 2015 Edition certification testing. For certification purposes, ONC permits Testers to ignore the error notification generated by the NIST Immunization Test Suite when this segment is missing. Since the product under test will have to meet state reporting requirements when implemented, and many states require this information, it may be beneficial for HIT Modules to demonstrate support for the Vaccine Funding Source OBX segment during 2015 Edition certification testing.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST EHRAPP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST EHRFAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST IISAPP	Indifferent
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST IISFAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624093847.808-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	VXU	Value-Profile Fixed
MSH-9.2	Trigger Event	V04	Value-Profile Fixed
MSH-9.3	Message Structure	VXU_V04	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-AD-5.1_Send_V04_Z22	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z22	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST EHRFAC	Indifferent
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		Indifferent
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code		Indifferent
MSH-22.10	Organization Identifier		Indifferent
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST IISFAC	Indifferent
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		Indifferent
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code		Indifferent
MSH-23.10	Organization Identifier		Indifferent

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	Value-Profile Fixed
PID-3	Patient Identifier List		
PID-3.1	ID Number	8891	Presence-Content Indifferent
PID-3.4	Assigning Authority		
PID-3.4.1	Namespace ID	NIST-MPI-1	Presence-Content Indifferent
PID-3.4.2	Universal ID		Indifferent
PID-3.4.3	Universal ID Type		Indifferent
PID-3.5	Identifier Type Code	MR	Value-Test Case Fixed
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Banks	Presence-Content Indifferent
PID-5.2	Given Name	Tyler	Presence-Content Indifferent
PID-5.3	Second and Further Given Names or Initials Thereof	Owen	Presence-Content Indifferent
PID-5.7	Name Type Code	L	Value-Test Case Fixed
PID-6	Mother's Maiden Name		
PID-6.1	Family Name		
PID-6.1.1	Surname		Indifferent
PID-6.7	Name Type Code		Indifferent
PID-7	Date/Time of Birth		
PID-7.1	Time	20140602	Presence-Content Indifferent
PID-8	Administrative Sex	M	Value-Test Case Fixed
PID-10	Race		
PID-10.1	Identifier	2106-3	Value-Test Case Fixed
PID-10.2	Text	White	Presence-Test Case Proper
PID-10.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	924 Sycamore Lane	Presence-Content Indifferent
PID-11.2	Other Designation		Indifferent
PID-11.3	City	Bozeman	Presence-Content Indifferent
PID-11.4	State or Province	MT	Presence-Content Indifferent
PID-11.5	Zip or Postal Code	59715	Presence-Content Indifferent
PID-11.6	Country	USA	Presence-Content Indifferent
PID-11.7	Address Type	P	Value-Test Case Fixed List
PID-13	Phone Number - Home		
PID-13.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
PID-13.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
PID-13.4	Email Address		NonPresence
PID-13.6	Area/City Code	406	Presence-Content Indifferent
PID-13.7	Local Number	5555835	Presence-Content Indifferent
PID-22	Ethnic Group		
PID-22.1	Identifier	2186-5	Value-Test Case Fixed
PID-22.2	Text	Not Hispanic or Latino	Presence-Test Case Proper
PID-22.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-24	Multiple Birth Indicator	Y	Indifferent
PID-25	Birth Order	2	Indifferent
PID-29	Patient Death Date and Time		
PID-29.1	Time		NonPresence
PID-30	Patient Death Indicator	N	Indifferent

PD1 : Patient Additional Demographic

Location	Data Element	Data	Categorization
PD1-11	Publicity Code		
PD1-11.1	Identifier	08	Value-Test Case Fixed
PD1-11.2	Text	Reminder/recall - to provider	Presence-Test Case Proper
PD1-11.3	Name of Coding System	HL70215	Value-Profile Fixed
PD1-12	Protection Indicator	N	Indifferent
PD1-13	Protection Indicator Effective Date	20150624	Indifferent
PD1-16	Immunization Registry Status	A	Value-Test Case Fixed
PD1-17	Immunization Registry Status Effective Date	20040602	Presence-Content Indifferent
PD1-18	Publicity Code Effective Date	20150624	Presence-Content Indifferent

NK1 : Next of Kin / Associated Parties

Location	Data Element	Data	Categorization
NK1-1	Set ID - NK1	1	Value-Profile Fixed
NK1-2	Name		
NK1-2.1	Family Name		
NK1-2.1.1	Surname	Banks	Presence-Content Indifferent
NK1-2.2	Given Name	Karl	Presence-Content Indifferent
NK1-2.3	Second and Further Given Names or Initials Thereof	Leonard	Indifferent
NK1-2.7	Name Type Code	L	Value-Test Case Fixed
NK1-3	Relationship		
NK1-3.1	Identifier	FTH	Value-Test Case Fixed
NK1-3.2	Text	Father	Presence-Test Case Proper
NK1-3.3	Name of Coding System	HL70063	Value-Profile Fixed
NK1-4	Address		
NK1-4.1	Street Address		
NK1-4.1.1	Street or Mailing Address	924 Sycamore Lane	Presence-Content Indifferent
NK1-4.2	Other Designation		Indifferent
NK1-4.3	City	Bozeman	Presence-Content Indifferent
NK1-4.4	State or Province	MT	Presence-Content Indifferent
NK1-4.5	Zip or Postal Code	59715	Presence-Content Indifferent
NK1-4.6	Country	USA	Presence-Content Indifferent
NK1-4.7	Address Type	P	Value-Test Case Fixed List
NK1-5	Phone Number		
NK1-5.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
NK1-5.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
NK1-5.4	Email Address		Indifferent
NK1-5.6	Area/City Code	406	Presence-Content Indifferent
NK1-5.7	Local Number	5555835	Presence-Content Indifferent

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	5645	Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	22515	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Indifferent
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Indifferent
ORC-17.2	Text	NISTEHRFacility	Indifferent
ORC-17.3	Name of Coding System	HL70362	Indifferent

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	5027	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	12128	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	7239	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	50588	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		Indifferent
ORC-2.2	Namespace ID		Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	9999	Value-Profile Fixed
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number		Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname		Indifferent
ORC-12.3	Given Name		Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof		Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID		Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code		Indifferent
ORC-12.13	Identifier Type Code		Indifferent
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

Location	Data Element	Data	Categorization

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	58160-0806-01	Value-Test Case Fixed List
RXA-5.2	Text	HIBERIX	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Indifferent
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	328734	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20150923	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	SKB	Value-Test Case Fixed
RXA-17.2	Text	GlaxoSmithKline	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	00006-4095-01	Value-Test Case Fixed List
RXA-5.2	Text	VAQTA	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	208940	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20160120	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	MSD	Value-Test Case Fixed
RXA-17.2	Text	Merck and Co., Inc.	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

Location	Data Element	Data	Categorization

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	00006-4681-01	Value-Test Case Fixed List
RXA-5.2	Text	M-M-R II	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	134301	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20151028	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	MSD	Value-Test Case Fixed
RXA-17.2	Text	Merck and Co., Inc.	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	21	Value-Test Case Fixed
RXA-5.2	Text	varicella	Presence-Test Case Proper
RXA-5.3	Name of Coding System	CVX	Value-Profile Fixed
RXA-6	Administered Amount	999	Value-Test Case Fixed
RXA-7	Administered Units		
RXA-7.1	Identifier		NonPresence
RXA-7.2	Text		NonPresence
RXA-7.3	Name of Coding System		NonPresence
RXA-9	Administration Notes		
RXA-9.1	Identifier		Indifferent
RXA-9.2	Text		Indifferent
RXA-9.3	Name of Coding System		Indifferent
RXA-10	Administering Provider		
RXA-10.1	ID Number		Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname		Indifferent
RXA-10.3	Given Name		Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof		Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code		Indifferent
RXA-10.13	Identifier Type Code		Indifferent
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number		Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time		Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		Indifferent
RXA-17.2	Text		Indifferent
RXA-17.3	Name of Coding System		Indifferent
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier	00	Value-Test Case Fixed
RXA-18.2	Text	Parental decision	Presence-Test Case Proper
RXA-18.3	Name of Coding System	NIP002	Value-Profile Fixed
RXA-20	Completion Status	RE	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXR[*]

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	Value-Test Case Fixed
RXR-1.2	Text	Intramuscular	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	RT	Value-Test Case Fixed
RXR-2.2	Text	Right Thigh	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	Value-Test Case Fixed
RXR-1.2	Text	Intramuscular	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	RT	Value-Test Case Fixed
RXR-2.2	Text	Right Thigh	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C38299	Value-Test Case Fixed
RXR-1.2	Text	Subcutaneous	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	LT	Value-Test Case Fixed
RXR-2.2	Text	Left Thigh	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

OBX[*]
OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	PHC70	Value-Test Case Fixed
OBX-5.2	Text	Private	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V01	Value-Test Case Fixed
OBX-5.2	Text	Not VFC Eligible	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Indifferent
OBX-17.2	Text	per immunization	Indifferent
OBX-17.3	Name of Coding System	CDCPHINVS	Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300026411230724	Value-Test Case Fixed
OBX-5.2	Text	Multi Pediatric Vaccines VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	PHC70	Value-Test Case Fixed
OBX-5.2	Text	Private	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V01	Value-Test Case Fixed
OBX-5.2	Text	Not VFC Eligible	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300004211211015	Value-Test Case Fixed
OBX-5.2	Text	Hepatitis A Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	PHC70	Value-Test Case Fixed
OBX-5.2	Text	Private	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V01	
OBX-5.2	Text	Not VFC Eligible	
OBX-5.3	Name of Coding System	HL70064	
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300012711210806	Value-Test Case Fixed
OBX-5.2	Text	MMR Vaccine (Measles, Mumps, and Rubella) VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150624	
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

Test Data Specification

Patient Information

Element	Data
Patient Name	Tyler Owen Banks
Mother's Maiden Name	
ID Number	8891
Date/Time of Birth	06/02/2014
Administrative Sex	Male
Patient Address	924 Sycamore Lane Bozeman MT 59715 USA
Local Number	(406)555-5835
Race	White
Ethnic Group	Not Hispanic or Latino
Multiple Birth Indicator	Yes
Birth Order	2

Immunization Registry Information

Element	Data
Immunization Registry Status	Active
Immunization Registry Status Effective Date	06/02/2004
Publicity Code	Reminder/recall - to provider
Publicity Code Effective Date	06/24/2015
Protection Indicator	No
Protection Indicator Effective Date	06/24/2015

Guardian or Responsible Party

Element	Data
Name	Karl Leonard Banks
Relationship	Father
Address	924 Sycamore Lane Bozeman MT 59715 USA
Phone Number	(406)555-5835

Vaccine Administration Information[*]

Vaccine Administration Information

Element	Data
Administered Vaccine	HIBERIX
Date/Time Start of Administration	06/24/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	328734
Substance Expiration Date	09/23/2015
Substance Manufacturer Name	GlaxoSmithKline
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Intramuscular
Administration Site	Right Thigh
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Private
Vaccine Funding Program Eligibility	Not VFC Eligible
Document Type	Multi Pediatric Vaccines VIS
Date Vis Presented	06/24/2015

Vaccine Administration Information

Element	Data
Administered Vaccine	VAQTA
Date/Time Start of Administration	06/24/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	208940
Substance Expiration Date	01/20/2016
Substance Manufacturer Name	Merck and Co., Inc.
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Intramuscular
Administration Site	Right Thigh
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Private
Vaccine Funding Program Eligibility	Not VFC Eligible
Document Type	Hepatitis A Vaccine VIS
Date Vis Presented	06/24/2015

Vaccine Administration Information

Element	Data
Administered Vaccine	M-M-R II
Date/Time Start of Administration	06/24/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	134301
Substance Expiration Date	10/28/2015
Substance Manufacturer Name	Merck and Co., Inc.
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Subcutaneous
Administration Site	Left Thigh
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Private
Vaccine Funding Program Eligibility	Not VFC Eligible
Document Type	MMR Vaccine (Measles, Mumps, and Rubella) VIS
Date Vis Presented	06/24/2015

Vaccine Administration Information

Element	Data
Administered Vaccine	varicella
Date/Time Start of Administration	06/24/2015
Administered Amount	999
Administered Units	
Administration Notes	
Administering Provider	
Substance Lot Number	
Substance Expiration Date	
Substance Manufacturer Name	
Substance/Treatment Refusal Reason	Parental decision
Completion Status	Refused
Action Code	Add
Route	
Administration Site	
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	

1.5.2. IZ-AD-5.2_Receive_ACK_Z23

Test Step Type: TA_RESPONDER
Tests the ability to consume a valid ACK message

Test Story

Description
The IIS returns a positive acknowledgement message indicating that no errors were found during the course of filing the message.

Comments
No Comments

Pre-condition
A VXU message is generated by the EHR.

Post-Condition
No PostCondition

Test Objectives

Evaluation Criteria
The acknowledgement message is consumed by the system responsible for the content of the administration message without error.

Notes
Important note regarding the MSH-10 and MSA-2: The NIST acknowledgment message is predefined and is based on the VXU message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the ACK message. The NIST ACK test message can be modified such that MSA-2 matches MSH-10 of the VXU message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IIS APP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IIS FAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHR APP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHR FAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624093847.822-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	ACK	
MSH-9.2	Trigger Event	V04	
MSH-9.3	Message Structure	ACK	
MSH-10	Message Control ID	NIST-IZ-AD-5.2_Receive_ACK_Z23	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z23	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IIS FAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code		
MSH-22.10	Organization Identifier		
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHR FAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code		
MSH-23.10	Organization Identifier		

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AA	
MSA-2	Message Control ID	NIST-IZ-AD-5.1_Send_V04_Z22	

Test Data Specification

Element	Data
This information will be automatically supplied by the System	

Juror Document

Return an Acknowledgement	
Test Case ID	IZ-AD-5_Refusal
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass / Fail
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the health information technology's ability to receive and process a Return an Acknowledgement Z23 message (in response to a "Send Unsolicited Immunization Update Using a VXU" Z22 message) in which NO Error is returned in the message.

The exact wording and format of the display in the health information technology (HIT) is not in-scope for this test.

Return an Acknowledgement
The receiving HIT system being tested shall process the Z23 ACK message correctly; a positive notification indicating that the ACK message was processed correctly need not be made visible in the system.

1.6. IZ-AD-6_Update_Record

Child updated administration

Test Story

Description
A child is seen at a clinic. A previously documented vaccination is updated to correct inaccurate information..

Comments
No Comments

Pre-condition
The IZ-AD-5_Refusal test case has been successfully completed.

Post-Condition
No PostCondition

Test Objectives
This test case asses the ability of the EHR to create an update message for a previously sent administration.

Evaluation Criteria

Notes
No Note

1.6.1. IZ-AD-6.1_Send_V04_Z22

Test Step Type: SUT_INITIATOR
Tests the ability to create a valid VXU^V04 message

Test Story

Description
After documenting vaccinations for Tyler Owen Banks the clinician, Lily Jackson (ID 456) recognizes that an error was made during data entry for the Hepatitis A vaccine. The Lot Number was entered incorrectly. She updates the data in the EHR and transmits it to the IIS.

Comments
No Comments

Pre-condition
The IZ-AD-5.1_Send_V04_Z22 test step has been successfully completed.

Post-Condition
No PostCondition

Test Objectives
Support for sending an update notification.

Evaluation Criteria
Message Validation Report. Lot number that appears in RXA-15 in the message submitted for Test Case 5 will be changed in the message submitted for Test Case 6.

Notes
Lot number in test message changed from 208940 in Test Case 5 to 208490 in Test Case 6. Since lot numbers cannot be pre-defined in the Test Data, the Test Suite does not automatically check for exact data in RXA-15; therefore, the Tester must manually verify that the lot number used in the test message for Test Case 5 was changed in the test message for Test Case 6. For new administration messages, the vaccine is communicated using NDC codes in RXA-5 (Administered Code). For a given vaccine, one or more NDC codes may be appropriate to message. For this reason, RXA-5.1 is categorized as "Value - Test Case Fixed List" and allows for multiple valid values. The Message Content and Example Message data contain a single representative valid NDC code for example purposes. ONC has determined that, from a regulatory/program perspective, an HIT Module cannot be required to be able to generate messages with the Vaccine Funding Source OBX segment for 2015 Edition certification testing. For certification purposes, ONC permits Testers to ignore the error notification generated by the NIST Immunization Test Suite when this segment is missing. Since the product under test will have to meet state reporting requirements when implemented, and many states require this information, it may be beneficial for HIT Modules to demonstrate support for the Vaccine Funding Source OBX segment during 2015 Edition certification testing.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST EHR APP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST EHR FAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST IIS APP	Presence-Configuration
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST IIS FAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624093847.808-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	VXU	Value-Profile Fixed
MSH-9.2	Trigger Event	V04	Value-Profile Fixed
MSH-9.3	Message Structure	VXU_V04	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-AD-6.1_Send_V04_Z22	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z22	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST EHR FAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		Indifferent
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code		Indifferent
MSH-22.10	Organization Identifier		Indifferent
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST IIS FAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		Indifferent
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code		Indifferent
MSH-23.10	Organization Identifier		Indifferent

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	Value-Profile Fixed
PID-3	Patient Identifier List		
PID-3.1	ID Number	8891	Presence-Content Indifferent
PID-3.4	Assigning Authority		
PID-3.4.1	Namespace ID	NIST-MPI-1	Presence-Content Indifferent
PID-3.4.2	Universal ID		Indifferent
PID-3.4.3	Universal ID Type		Indifferent
PID-3.5	Identifier Type Code	MR	Value-Test Case Fixed
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Banks	Presence-Content Indifferent
PID-5.2	Given Name	Tyler	Presence-Content Indifferent
PID-5.3	Second and Further Given Names or Initials Thereof	Owen	Presence-Content Indifferent
PID-5.7	Name Type Code	L	Value-Test Case Fixed
PID-6	Mother's Maiden Name		
PID-6.1	Family Name		
PID-6.1.1	Surname		Indifferent
PID-6.7	Name Type Code		Indifferent
PID-7	Date/Time of Birth		
PID-7.1	Time	20140602	Presence-Content Indifferent
PID-8	Administrative Sex	M	Value-Test Case Fixed
PID-10	Race		
PID-10.1	Identifier	2106-3	Value-Test Case Fixed
PID-10.2	Text	White	Presence-Test Case Proper
PID-10.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	924 Sycamore Lane	Presence-Content Indifferent
PID-11.2	Other Designation		Indifferent
PID-11.3	City	Bozeman	Presence-Content Indifferent
PID-11.4	State or Province	MT	Presence-Content Indifferent
PID-11.5	Zip or Postal Code	59715	Presence-Content Indifferent
PID-11.6	Country	USA	Presence-Content Indifferent
PID-11.7	Address Type	P	Value-Test Case Fixed List
PID-13	Phone Number - Home		
PID-13.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
PID-13.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
PID-13.4	Email Address		Indifferent
PID-13.6	Area/City Code	406	Presence-Content Indifferent
PID-13.7	Local Number	5555835	Presence-Content Indifferent
PID-22	Ethnic Group		
PID-22.1	Identifier	2186-5	Value-Test Case Fixed
PID-22.2	Text	Not Hispanic or Latino	Presence-Test Case Proper
PID-22.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-24	Multiple Birth Indicator	Y	Value-Test Case Fixed
PID-25	Birth Order	2	Value-Test Case Fixed
PID-29	Patient Death Date and Time		
PID-29.1	Time		NonPresence
PID-30	Patient Death Indicator	N	Value-Test Case Fixed

PD1 : Patient Additional Demographic

Location	Data Element	Data	Categorization
PD1-11	Publicity Code		
PD1-11.1	Identifier	08	Value-Test Case Fixed
PD1-11.2	Text	Reminder/recall - to provider	Presence-Test Case Proper
PD1-11.3	Name of Coding System	HL70215	Value-Profile Fixed
PD1-12	Protection Indicator	N	Value-Test Case Fixed
PD1-13	Protection Indicator Effective Date	20150624	Presence-Content Indifferent
PD1-16	Immunization Registry Status	A	Value-Test Case Fixed
PD1-17	Immunization Registry Status Effective Date	20040602	Presence-Content Indifferent
PD1-18	Publicity Code Effective Date	20150624	Presence-Content Indifferent

NK1 : Next of Kin / Associated Parties

Location	Data Element	Data	Categorization
NK1-1	Set ID - NK1	1	Value-Profile Fixed
NK1-2	Name		
NK1-2.1	Family Name		
NK1-2.1.1	Surname	Banks	Presence-Content Indifferent
NK1-2.2	Given Name	Karl	Presence-Content Indifferent
NK1-2.3	Second and Further Given Names or Initials Thereof	Leonard	Presence-Content Indifferent
NK1-2.7	Name Type Code	L	Value-Test Case Fixed
NK1-3	Relationship		
NK1-3.1	Identifier	FTH	Value-Test Case Fixed
NK1-3.2	Text	Father	Presence-Test Case Proper
NK1-3.3	Name of Coding System	HL70063	Value-Profile Fixed
NK1-4	Address		
NK1-4.1	Street Address		
NK1-4.1.1	Street or Mailing Address	924 Sycamore Lane	Presence-Content Indifferent
NK1-4.2	Other Designation		Indifferent
NK1-4.3	City	Bozeman	Presence-Content Indifferent
NK1-4.4	State or Province	MT	Presence-Content Indifferent
NK1-4.5	Zip or Postal Code	59715	Presence-Content Indifferent
NK1-4.6	Country	USA	Presence-Content Indifferent
NK1-4.7	Address Type	P	Value-Test Case Fixed List
NK1-5	Phone Number		
NK1-5.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
NK1-5.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
NK1-5.4	Email Address		Indifferent
NK1-5.6	Area/City Code	406	Presence-Content Indifferent
NK1-5.7	Local Number	5555835	Presence-Content Indifferent

Location	Data Element	Data	Categorization

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	5027	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	12128	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150624	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	00006-4095-01	Value-Test Case Fixed List
RXA-5.2	Text	VAQTA	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	208490	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20160120	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	MSD	Value-Test Case Fixed
RXA-17.2	Text	Merck and Co., Inc.	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	U	Value-Test Case Fixed

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	Value-Test Case Fixed
RXR-1.2	Text	Intramuscular	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	RT	Value-Test Case Fixed
RXR-2.2	Text	Right Thigh	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

OBX[*]

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	PHC70	Value-Test Case Fixed
OBX-5.2	Text	Private	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V01	Value-Test Case Fixed
OBX-5.2	Text	Not VFC Eligible	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300004211211015	Value-Test Case Fixed
OBX-5.2	Text	Hepatitis A Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150624	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150624	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

Test Data Specification

Patient Information

Element	Data
Patient Name	Tyler Owen Banks
Mother's Maiden Name	
ID Number	8891
Date/Time of Birth	06/02/2014
Administrative Sex	Male
Patient Address	924 Sycamore Lane Bozeman MT 59715 USA
Local Number	(406)555-5835
Race	White
Ethnic Group	Not Hispanic or Latino
Multiple Birth Indicator	Yes
Birth Order	2

Immunization Registry Information

Element	Data
Immunization Registry Status	Active
Immunization Registry Status Effective Date	06/02/2004
Publicity Code	Reminder/recall - to provider
Publicity Code Effective Date	06/24/2015
Protection Indicator	No
Protection Indicator Effective Date	06/24/2015

Guardian or Responsible Party

Element	Data
Name	Karl Leonard Banks
Relationship	Father
Address	924 Sycamore Lane Bozeman MT 59715 USA
Phone Number	(406)555-5835

Vaccine Administration Information

Element	Data
Administered Vaccine	VAQTA
Date/Time Start of Administration	06/24/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	208490
Substance Expiration Date	01/20/2016
Substance Manufacturer Name	Merck and Co., Inc.
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Update
Route	Intramuscular
Administration Site	Right Thigh
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Private
Vaccine Funding Program Eligibility	Not VFC Eligible
Document Type	Hepatitis A Vaccine VIS
Date Vis Presented	06/24/2015

1.6.2. IZ-AD-6.2_Receive_ACK_Z23

Test Step Type: TA_RESPONDER
ests the ability to consume a valid ACK message

Test Story

Description
The IIS returns a positive acknowledgement message indicating that no errors were found during the course of filing the message.

Comments
No Comments

Pre-condition
A VXU message is generated by the EHR.

Post-Condition
No PostCondition

Test Objectives

Evaluation Criteria
The acknowledgement message is consumed by the system responsible for the content of the administration message without error.

Notes
Important note regarding the MSH-10 and MSA-2: The NIST acknowledgment message is predefined and is based on the VXU message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the ACK message. The NIST ACK test message can be modified such that MSA-2 matches MSH-10 of the VXU message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IIS APP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IIS FAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHR APP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHR FAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150624093847.822-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	ACK	
MSH-9.2	Trigger Event	V04	
MSH-9.3	Message Structure	ACK	
MSH-10	Message Control ID	NIST-IZ-AD-6.2_Receive_ACK_Z23	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z23	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IIS FAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code		
MSH-22.10	Organization Identifier		
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHR FAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code		
MSH-23.10	Organization Identifier		

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AA	
MSA-2	Message Control ID	NIST-IZ-AD-6.1_Send_V04_Z22	

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Return an Acknowledgement	
Test Case ID	IZ-AD-6_Update_Record
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass / Fail
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the health information technology's ability to receive and process a Return an Acknowledgement Z23 message (in response to a "Send Unsolicited Immunization Update Using a VXU" Z22 message) in which NO Error is returned in the message.

The exact wording and format of the display in the health information technology (HIT) is not in-scope for this test.

Return an Acknowledgement
The receiving HIT system being tested shall process the Z23 ACK message correctly; a positive notification indicating that the ACK message was processed correctly need not be made visible in the system.

1.7. IZ-AD-7_Historical_IIS-Error

Historical administration resulting in fatal error

Test Story

Description
A patient is seen at a clinic. A historical vaccination is recorded but the IIS is unable to process the administration message, rejects it and returns a fatal error in the acknowledgement message.

Comments
The test case simulates the IIS issuing an acknowledgement error due to an internal error even though the message is valid.

Pre-condition
No PreCondition

Post-Condition
The returned error must be visible in the EHR.

Test Objectives
This test case assesses the ability of the EHR to accept an acknowledgement message with a fatal error being returned by the IIS.

Evaluation Criteria
Administered Message: Validation Report with no Errors Acknowledgement Message: An indication of a error (See Juror Document)

Notes
No Note

1.7.1. IZ-AD-7.1_Send_V04_Z22

Test Step Type: SUT_INITIATOR
Tests the ability to create a valid VXU^V04 message

Test Story

Description
A 66 year old female, Helen Barrett, comes to a clinic for a physical. A clinic staff member collects basic patient demographic information including name, date of birth and sex. She indicates that reminders and recalls may be sent by any method. The patient reports that she received a Zoster vaccination at a local pharmacy on her 65th birthday. The clinic staff determine that no further vaccinations are required. A clinician, Lily Jackson (ID 7824) enters the historical data into the EHR and transmits it to the IIS.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives
Support for Sending Responsible Organization (MSH-22) and Receiving Responsible Organization (MSH-23) to include: 1. Identifier 2. Identifier Type Code 3. Assigning Authority for the Identifier   Support for both phone number and e-mail.

Evaluation Criteria
Message Validation Report.

Notes

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NISTEHRAPP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NISTEHRFAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NISTIISAPP	Presence-Configuration
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NISTIISFAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150625121047.839-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	VXU	Value-Profile Fixed
MSH-9.2	Trigger Event	V04	Value-Profile Fixed
MSH-9.3	Message Structure	VXU_V04	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-AD-7.1_Send_V04_Z22	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z22	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NISTEHRFAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-IZ-1	Presence-Configuration
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-22.10	Organization Identifier	100-6482	Presence-Configuration
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NISTIISFAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-IZ-1	Presence-Configuration
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-23.10	Organization Identifier	100-3322	Presence-Configuration

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	Value-Profile Fixed
PID-3	Patient Identifier List		
PID-3.1	ID Number	7120	Presence-Content Indifferent
PID-3.4	Assigning Authority		
PID-3.4.1	Namespace ID	NIST-MPI-1	Presence-Content Indifferent
PID-3.4.2	Universal ID		Indifferent
PID-3.4.3	Universal ID Type		Indifferent
PID-3.5	Identifier Type Code	MR	Value-Test Case Fixed
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Barrett	Presence-Content Indifferent
PID-5.2	Given Name	Helen	Presence-Content Indifferent
PID-5.3	Second and Further Given Names or Initials Thereof		Indifferent
PID-5.7	Name Type Code	L	Value-Test Case Fixed
PID-6	Mother's Maiden Name		
PID-6.1	Family Name		
PID-6.1.1	Surname		Indifferent
PID-6.7	Name Type Code		Indifferent
PID-7	Date/Time of Birth		
PID-7.1	Time	19500317	Presence-Content Indifferent
PID-8	Administrative Sex	F	Value-Test Case Fixed
PID-10	Race		
PID-10.1	Identifier	2106-3	Value-Test Case Fixed
PID-10.2	Text	White	Presence-Test Case Proper
PID-10.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	763 Main St	Presence-Content Indifferent
PID-11.2	Other Designation		Indifferent
PID-11.3	City	Bozeman	Presence-Content Indifferent
PID-11.4	State or Province	MT	Presence-Content Indifferent
PID-11.5	Zip or Postal Code	59715	Presence-Content Indifferent
PID-11.6	Country	USA	Presence-Content Indifferent
PID-11.7	Address Type	P	Value-Test Case Fixed List
PID-13[1]	Phone Number - Home		
PID-13[1].2	Telecommunication Use Code	PRN	Value-Test Case Fixed
PID-13[1].3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
PID-13[1].4	Email Address		NonPresence
PID-13[1].6	Area/City Code	406	Presence-Content Indifferent
PID-13[1].7	Local Number	5554064	Presence-Content Indifferent
PID-13[2]	Phone Number - Home		
PID-13[2].2	Telecommunication Use Code	NET	Value-Test Case Fixed
PID-13[2].3	Telecommunication Equipment Type		Indifferent
PID-13[2].4	Email Address	Helen.Barrett@isp.com	Presence-Content Indifferent
PID-13[2].6	Area/City Code		NonPresence
PID-13[2].7	Local Number		NonPresence
PID-22	Ethnic Group		
PID-22.1	Identifier	2186-5	Value-Test Case Fixed
PID-22.2	Text	Not Hispanic or Latino	Presence-Test Case Proper
PID-22.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-24	Multiple Birth Indicator	N	Value-Test Case Fixed
PID-25	Birth Order	1	Indifferent
PID-29	Patient Death Date and Time		
PID-29.1	Time		NonPresence
PID-30	Patient Death Indicator	N	Value-Test Case Fixed

PD1 : Patient Additional Demographic

Location	Data Element	Data	Categorization
PD1-11	Publicity Code		
PD1-11.1	Identifier	02	Value-Test Case Fixed
PD1-11.2	Text	Reminder/recall - any method	Presence-Test Case Proper
PD1-11.3	Name of Coding System	HL70215	Value-Profile Fixed
PD1-12	Protection Indicator	Y	Value-Test Case Fixed
PD1-13	Protection Indicator Effective Date	20150625	Presence-Content Indifferent
PD1-16	Immunization Registry Status	A	Value-Test Case Fixed
PD1-17	Immunization Registry Status Effective Date	19500317	Presence-Content Indifferent
PD1-18	Publicity Code Effective Date	20150625	Presence-Content Indifferent

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		Indifferent
ORC-2.2	Namespace ID		Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	53100	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number		Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname		Indifferent
ORC-12.3	Given Name		Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof		Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID		Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code		Indifferent
ORC-12.13	Identifier Type Code		Indifferent
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150317	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	121	Value-Test Case Fixed
RXA-5.2	Text	zoster	Presence-Test Case Proper
RXA-5.3	Name of Coding System	CVX	Value-Profile Fixed
RXA-6	Administered Amount	999	Value-Test Case Fixed
RXA-7	Administered Units		
RXA-7.1	Identifier		NonPresence
RXA-7.2	Text		NonPresence
RXA-7.3	Name of Coding System		NonPresence
RXA-9	Administration Notes		
RXA-9.1	Identifier	01	Value-Test Case Fixed
RXA-9.2	Text	Historical Administration	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number		Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname		Indifferent
RXA-10.3	Given Name		Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof		Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code		Indifferent
RXA-10.13	Identifier Type Code		Indifferent
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number		Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time		Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		Indifferent
RXA-17.2	Text		Indifferent
RXA-17.3	Name of Coding System		Indifferent
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

Test Data Specification

Patient Information

Element	Data
Patient Name	Helen Barrett
Mother's Maiden Name	
ID Number	7120
Date/Time of Birth	03/17/1950
Administrative Sex	Female
Patient Address	763 Main St Bozeman MT 59715 USA
Local Number	(406)555-4064
Email	Helen.Barrett@isp.com
Race	White
Ethnic Group	Not Hispanic or Latino
Multiple Birth Indicator	No
Birth Order	1

Immunization Registry Information

Element	Data
Immunization Registry Status	Active
Immunization Registry Status Effective Date	03/17/1950
Publicity Code	Reminder/recall - any method
Publicity Code Effective Date	06/25/2015
Protection Indicator	Yes
Protection Indicator Effective Date	06/25/2015

Vaccine Administration Information

Element	Data
Administered Vaccine	zoster
Date/Time Start of Administration	03/17/2015
Administered Amount	999
Administered Units	
Administration Notes	Historical Administration
Administering Provider	
Substance Lot Number	
Substance Expiration Date	
Substance Manufacturer Name	
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	
Administration Site	
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	

1.7.2. IZ-AD-7.2_Receive_ACK_Z23

Test Step Type: TA_RESPONDER
Tests the ability to consume an ACK message containing a fatal error

Test Story

Description
The IIS has a mapping error in their CVX table and is unable to recognize the CVX code sent in RXA-5 even though it is valid. The IIS is unable to identify the appropriate vaccine, which is a required element, and rejects the message. The acknowledgement message returned contains an error for the table mapping.

Comments
No Comments

Pre-condition
A VXU message is generated by the EHR.

Post-Condition
No PostCondition

Test Objectives
Support for accepting an acknowledgement message with a fatal error being returned by the IIS and to display some notification to an end user.

Evaluation Criteria
The error returned in the acknowledgement message is visible in the system responsible for the content of the administration message.

Notes
Important note regarding the MSH-10 and MSA-2: The NIST acknowledgment message is predefined and is based on the VXU message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the ACK message. The NIST ACK test message can be modified such that MSA-2 matches MSH-10 of the VXU message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IISAPP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IISFAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHRAPP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHRFAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150625121047.853-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	ACK	
MSH-9.2	Trigger Event	V04	
MSH-9.3	Message Structure	ACK	
MSH-10	Message Control ID	NIST-IZ-AD-7.2_Receive_ACK_Z23	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z23	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IISFAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-IZ-1	
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code	XX	
MSH-22.10	Organization Identifier	100-3322	
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHRFAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-IZ-1	
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code	XX	
MSH-23.10	Organization Identifier	100-6482	

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AE	
MSA-2	Message Control ID	NIST-IZ-AD-7.1_Send_V04_Z22	

ERR : Error

Location	Data Element	Data	Categorization
ERR-2	Error Location		
ERR-2.1	Segment ID	RXA	
ERR-2.2	Segment Sequence	1	
ERR-2.3	Field Position	5	
ERR-2.4	Field Repetition	1	
ERR-2.5	Component Number	1	
ERR-2.6	Sub-Component Number		
ERR-3	HL7 Error Code		
ERR-3.1	Identifier	999	
ERR-3.2	Text	Application error	
ERR-3.3	Name of Coding System	HL70357	
ERR-4	Severity	E	
ERR-5	Application Error Code		
ERR-5.1	Identifier	5	
ERR-5.2	Text	Table value not found	
ERR-5.3	Name of Coding System	HL70533	
ERR-8	User Message	Vaccine code not recognized - message rejected	

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Return an Acknowledgement	
Test Case ID	IZ-AD-7_Historical_IIS-Error
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass / Fail
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the health information technology's ability to receive and process a Return an Acknowledgement Z23 message (in response to a "Send Unsolicited Immunization Update Using a VXU" Z22 message) in which an Error is returned in the message.

The exact wording and format of the display in the health information technology (HIT) is not in-scope for this test.

Return an Acknowledgement
The receiving HIT system being tested shall process the Z23 ACK error notification message correctly; the issue identified in the error notification must be made visible in the system.

1.8. IZ-AD-8_Admin_IIS-Warning

New administration resulting in soft error

Test Story

Description
A patient is seen at a clinic. A new administration is recorded. The IIS is able to process the administration message but finds a soft error (warning) which it returns in the acknowledgement message.

Comments
The test case simulates the IIS issuing an acknowledgement warning due to an internal warning even though the message is valid.

Pre-condition
No PreCondition

Post-Condition
The returned warning must be visible in the EHR-S.

Test Objectives
The test case targets the EHR-S capability of supporting OIDs (e.g., in MSH-3 and for assigning authorities) for administered message and assesses the ability of the EHR-S to accept an acknowledgement message with a soft error (warning) being returned by the IIS.

Evaluation Criteria
Administered Message: Validation Report with no Errors Acknowledgement Message: An indication of a warning (See Juror Document)

Notes
No Note

1.8.1. IZ-AD-8.1_Send_V04_Z22

Test Step Type: SUT_INITIATOR
Tests the ability to create a valid VXU^V04 message

Test Story

Description
A 1 month old female, Ashley Jennifer Broadway, is brought to a clinic for a well child visit by her mother Ellen Broadway (nee Layton). A clinic staff member collects basic patient demographic information including name, date of birth and sex. A clinic provider, Wilma Thomas (physician ID 654) reviews the patient's vaccination history and determines that the child requires a Hep B vaccination. The child is covered by insurance and does not qualify for all Vaccine For Children (VFC) supplied vaccines. The mother is given the Vaccine Information Sheet (VIS) to review. After reading it, she agrees that the child should receive the Hep B vaccine. She also agrees that the data should be shared once it is incorporated into the local IIS. She indicates that reminders and recalls should not be made via a phone call. An appropriate dose of Hep B (ENGERIX-B) is selected from the clinic's stock of privately funded vaccines. A clinician, Lily Jackson (ID 7824) prepares and administers the doses to the patient and enters the data into the EHR and transmits it to the IIS.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives
Support of OIDs.

Evaluation Criteria
Message Validation Report.

Notes
For new administration messages, the vaccine is communicated using NDC codes in RXA-5 (Administered Code). For a given vaccine, one or more NDC codes may be appropriate to message. For this reason, RXA-5.1 is categorized as "Value - Test Case Fixed List" and allows for multiple valid values. The Message Content and Example Message data contain a single representative valid NDC code for example purposes.   ONC has determined that, from a regulatory/program perspective, an HIT Module cannot be required to be able to generate messages with the Vaccine Funding Source OBX segment for 2015 Edition certification testing. For certification purposes, ONC permits Testers to ignore the error notification generated by the NIST Immunization Test Suite when this segment is missing. Since the product under test will have to meet state reporting requirements when implemented, and many states require this information, it may be beneficial for HIT Modules to demonstrate support for the Vaccine Funding Source OBX segment during 2015 Edition certification testing.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator			Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST EHRAPP	Presence-Configuration
MSH-3.2	Universal ID	2.16.840.1.113883.3.72.5.40.1	Presence-Test Case Proper
MSH-3.3	Universal ID Type	ISO	Value-Profile Fixed
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST EHRFAC	Presence-Configuration
MSH-4.2	Universal ID	2.16.840.1.113883.3.72.5.40.2	Presence-Test Case Proper
MSH-4.3	Universal ID Type	ISO	Value-Profile Fixed
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST IISAPP	Presence-Configuration
MSH-5.2	Universal ID	2.16.840.1.113883.3.72.5.40.3	Presence-Test Case Proper
MSH-5.3	Universal ID Type	ISO	Value-Profile Fixed
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST IISFAC	Presence-Configuration
MSH-6.2	Universal ID	2.16.840.1.113883.3.72.5.40.4	Presence-Test Case Proper
MSH-6.3	Universal ID Type	ISO	Value-Profile Fixed
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150625103328.757-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	VXU	Value-Profile Fixed
MSH-9.2	Trigger Event	V04	Value-Profile Fixed
MSH-9.3	Message Structure	VXU_V04	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-AD-8.1_Send_V04_Z22	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z22	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST EHRFAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-IZ-1	Presence-Configuration
MSH-22.6.2	Universal ID	2.16.840.1.113883.3.72.5.40.9	Presence-Test Case Proper
MSH-22.6.3	Universal ID Type	ISO	Value-Profile Fixed
MSH-22.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-22.10	Organization Identifier	100-6482	Presence-Configuration
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST IISFAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-IZ-1	Presence-Configuration
MSH-23.6.2	Universal ID	2.16.840.1.113883.3.72.5.40.9	Presence-Test Case Proper
MSH-23.6.3	Universal ID Type	ISO	Value-Profile Fixed
MSH-23.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-23.10	Organization Identifier	100-3322	Presence-Configuration

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	Value-Profile Fixed
PID-3	Patient Identifier List		
PID-3.1	ID Number	77100	Presence-Content Indifferent
PID-3.4	Assigning Authority		
PID-3.4.1	Namespace ID	NIST-MPI-1	Presence-Content Indifferent
PID-3.4.2	Universal ID	2.16.840.1.113883.3.72.5.40.5	Presence-Test Case Proper
PID-3.4.3	Universal ID Type	ISO	Value-Profile Fixed
PID-3.5	Identifier Type Code	MR	Value-Test Case Fixed
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Broadway	Presence-Content Indifferent
PID-5.2	Given Name	Ashley	Presence-Content Indifferent
PID-5.3	Second and Further Given Names or Initials Thereof	Jennifer	Presence-Content Indifferent
PID-5.7	Name Type Code	L	Value-Test Case Fixed
PID-6	Mother's Maiden Name		
PID-6.1	Family Name		
PID-6.1.1	Surname	Layton	Presence-Content Indifferent
PID-6.7	Name Type Code	M	Value-Profile Fixed
PID-7	Date/Time of Birth		
PID-7.1	Time	20150516	Presence-Content Indifferent
PID-8	Administrative Sex	F	Value-Test Case Fixed
PID-10	Race		
PID-10.1	Identifier	2054-5	Value-Test Case Fixed
PID-10.2	Text	African American	Presence-Test Case Proper
PID-10.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	901 North 12th St	Presence-Content Indifferent
PID-11.2	Other Designation		Indifferent
PID-11.3	City	Bozeman	Presence-Content Indifferent
PID-11.4	State or Province	MT	Presence-Content Indifferent
PID-11.5	Zip or Postal Code	59715	Presence-Content Indifferent
PID-11.6	Country	USA	Presence-Content Indifferent
PID-11.7	Address Type	P	Value-Test Case Fixed List
PID-13	Phone Number - Home		
PID-13.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
PID-13.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
PID-13.4	Email Address		NonPresence
PID-13.6	Area/City Code	406	Presence-Content Indifferent
PID-13.7	Local Number	5552262	Presence-Content Indifferent
PID-22	Ethnic Group		
PID-22.1	Identifier	2186-5	Value-Test Case Fixed
PID-22.2	Text	Not Hispanic or Latino	Presence-Test Case Proper
PID-22.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-24	Multiple Birth Indicator	N	Value-Test Case Fixed
PID-25	Birth Order	1	Indifferent
PID-29	Patient Death Date and Time		
PID-29.1	Time		NonPresence
PID-30	Patient Death Indicator	N	Value-Test Case Fixed

PD1 : Patient Additional Demographic

Location	Data Element	Data	Categorization
PD1-11	Publicity Code		
PD1-11.1	Identifier	03	Value-Test Case Fixed
PD1-11.2	Text	Reminder/recall - no calls	Presence-Test Case Proper
PD1-11.3	Name of Coding System	HL70215	Value-Profile Fixed
PD1-12	Protection Indicator	N	Value-Test Case Fixed
PD1-13	Protection Indicator Effective Date	20150625	Presence-Content Indifferent
PD1-16	Immunization Registry Status	A	Value-Test Case Fixed
PD1-17	Immunization Registry Status Effective Date	20150516	Presence-Content Indifferent
PD1-18	Publicity Code Effective Date	20150625	Presence-Content Indifferent

NK1 : Next of Kin / Associated Parties

Location	Data Element	Data	Categorization
NK1-1	Set ID - NK1	1	Value-Profile Fixed
NK1-2	Name		
NK1-2.1	Family Name		
NK1-2.1.1	Surname	Broadway	Presence-Content Indifferent
NK1-2.2	Given Name	Ellen	Presence-Content Indifferent
NK1-2.3	Second and Further Given Names or Initials Thereof		Indifferent
NK1-2.7	Name Type Code	L	Value-Test Case Fixed
NK1-3	Relationship		
NK1-3.1	Identifier	MTH	Value-Test Case Fixed
NK1-3.2	Text	Mother	Presence-Test Case Proper
NK1-3.3	Name of Coding System	HL70063	Value-Profile Fixed
NK1-4	Address		
NK1-4.1	Street Address		
NK1-4.1.1	Street or Mailing Address	901 North 12th St	Presence-Content Indifferent
NK1-4.2	Other Designation		Indifferent
NK1-4.3	City	Bozeman	Presence-Content Indifferent
NK1-4.4	State or Province	MT	Presence-Content Indifferent
NK1-4.5	Zip or Postal Code	59715	Presence-Content Indifferent
NK1-4.6	Country	USA	Presence-Content Indifferent
NK1-4.7	Address Type	P	Value-Test Case Fixed List
NK1-5	Phone Number		
NK1-5.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
NK1-5.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
NK1-5.4	Email Address		Indifferent
NK1-5.6	Area/City Code	406	Presence-Content Indifferent
NK1-5.7	Local Number	5552262	Presence-Content Indifferent

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	3881	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID	2.16.840.1.113883.3.72.5.40.10	Presence-Test Case Proper
ORC-2.4	Universal ID Type	ISO	Value-Profile Fixed
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	13926	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID	2.16.840.1.113883.3.72.5.40.10	Presence-Test Case Proper
ORC-3.4	Universal ID Type	ISO	Value-Profile Fixed
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID	2.16.840.1.113883.3.72.5.40.7	Presence-Test Case Proper
ORC-10.9.3	Universal ID Type	ISO	Value-Profile Fixed
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID	2.16.840.1.113883.3.72.5.40.7	Presence-Test Case Proper
ORC-12.9.3	Universal ID Type	ISO	Value-Profile Fixed
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150625	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	58160-0820-01	Value-Test Case Fixed List
RXA-5.2	Text	ENGERIX-B	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID	2.16.840.1.113883.3.72.5.40.7	Presence-Test Case Proper
RXA-10.9.3	Universal ID Type	ISO	Value-Profile Fixed
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID	2.16.840.1.113883.3.72.5.40.12	Presence-Test Case Proper
RXA-11.4.3	Universal ID Type	ISO	Value-Profile Fixed
RXA-15	Substance Lot Number	797397	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20151203	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	SKB	Value-Test Case Fixed
RXA-17.2	Text	GlaxoSmithKline	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	Value-Test Case Fixed
RXR-1.2	Text	Intramuscular	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	LT	Value-Test Case Fixed
RXR-2.2	Text	Left Thigh	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

OBX[*]

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	PHC70	Value-Test Case Fixed
OBX-5.2	Text	Private	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V01	Value-Test Case Fixed
OBX-5.2	Text	Not VFC Eligible	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300005911230512	Value-Test Case Fixed
OBX-5.2	Text	Hepatitis B Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150625	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

Test Data Specification

Patient Information

Element	Data
Patient Name	Ashley Jennifer Broadway
Mother's Maiden Name	Layton
ID Number	77100
Date/Time of Birth	05/16/2015
Administrative Sex	Female
Patient Address	901 North 12th St Bozeman MT 59715 USA
Local Number	(406)555-2262
Race	African American
Ethnic Group	Not Hispanic or Latino
Multiple Birth Indicator	No
Birth Order	1

Immunization Registry Information

Element	Data
Immunization Registry Status	Active
Immunization Registry Status Effective Date	05/16/2015
Publicity Code	Reminder/recall - no calls
Publicity Code Effective Date	06/25/2015
Protection Indicator	No
Protection Indicator Effective Date	06/25/2015

Guardian or Responsible Party

Element	Data
Name	Ellen Broadway
Relationship	Mother
Address	901 North 12th St Bozeman MT 59715 USA
Phone Number	(406)555-2262

Vaccine Administration Information

Element	Data
Administered Vaccine	ENGERIX-B
Date/Time Start of Administration	06/25/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	797397
Substance Expiration Date	12/03/2015
Substance Manufacturer Name	GlaxoSmithKline
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Intramuscular
Administration Site	Left Thigh
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Private
Vaccine Funding Program Eligibility	Not VFC Eligible
Document Type	Hepatitis B Vaccine VIS
Date Vis Presented	06/25/2015

1.8.2. IZ-AD-8.2_Receive_ACK_Z23

Test Step Type: TA_RESPONDER
Tests the ability to consume an ACK message containing a warning

Test Story

Description
A mapping error in the IIS software results in the IIS being unable to recognize the administration site sent in RXR-2 even though it is valid. The acknowledgement message returned contains a warning for an invalid value.

Comments
No Comments

Pre-condition
A VXU message is generated by the EHR.

Post-Condition
No PostCondition

Test Objectives
Support for accepting an acknowledgement message with a warning being returned by the IIS and to display some notification to an end user.

Evaluation Criteria
The warning returned in the acknowledgement message is visible in the system responsible for the content of the administration message.

Notes
Important note regarding the MSH-10 and MSA-2: The NIST acknowledgment message is predefined and is based on the VXU message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the ACK message. The NIST ACK test message can be modified such that MSA-2 matches MSH-10 of the VXU message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NISTIISAPP	
MSH-3.2	Universal ID	2.16.840.1.113883.3.72.5.40.3	
MSH-3.3	Universal ID Type	ISO	
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NISTIISFAC	
MSH-4.2	Universal ID	2.16.840.1.113883.3.72.5.40.4	
MSH-4.3	Universal ID Type	ISO	
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NISTEHRAPP	
MSH-5.2	Universal ID	2.16.840.1.113883.3.72.5.40.1	
MSH-5.3	Universal ID Type	ISO	
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NISTEHRFAC	
MSH-6.2	Universal ID	2.16.840.1.113883.3.72.5.40.2	
MSH-6.3	Universal ID Type	ISO	
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150625103328.758-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	ACK	
MSH-9.2	Trigger Event	V04	
MSH-9.3	Message Structure	ACK	
MSH-10	Message Control ID	NIST-IZ-AD-8.2_Receive_ACK_Z23	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z23	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NISTIISFAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-IZ-1	
MSH-22.6.2	Universal ID	2.16.840.1.113883.3.72.5.40.9	
MSH-22.6.3	Universal ID Type	ISO	
MSH-22.7	Identifier Type Code	XX	
MSH-22.10	Organization Identifier	100-3322	
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NISTEHRFAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-IZ-1	
MSH-23.6.2	Universal ID	2.16.840.1.113883.3.72.5.40.9	
MSH-23.6.3	Universal ID Type	ISO	
MSH-23.7	Identifier Type Code	XX	
MSH-23.10	Organization Identifier	100-6482	

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AE	
MSA-2	Message Control ID	NIST-IZ-AD-8.1_Send_V04_Z22	

ERR : Error

Location	Data Element	Data	Categorization
ERR-2	Error Location		
ERR-2.1	Segment ID	RXR	
ERR-2.2	Segment Sequence	1	
ERR-2.3	Field Position	2	
ERR-2.4	Field Repetition	1	
ERR-2.5	Component Number	1	
ERR-2.6	Sub-Component Number		
ERR-3	HL7 Error Code		
ERR-3.1	Identifier	999	
ERR-3.2	Text	Application error	
ERR-3.3	Name of Coding System	HL70357	
ERR-4	Severity	W	
ERR-5	Application Error Code		
ERR-5.1	Identifier	5	
ERR-5.2	Text	Table value not found	
ERR-5.3	Name of Coding System	HL70533	
ERR-8	User Message	Administration Site not recognized - site data will not be saved	

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Return an Acknowledgement		
Test Case ID	IZ-AD-8_Admin_IIS-Warning	
Juror ID		
Juror Name		
HIT System Tested		
Inspection Date/Time		
Inspection Settlement (Pass/Fail)	Pass	Fail
Reason Failed		
Juror Comments		

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the health information technology's ability to receive and process a Return an Acknowledgement Z23 message (in response to a "Send Unsolicited Immunization Update Using a VXU" Z22 message) in which an Error is returned in the message.

The exact wording and format of the display in the health information technology (HIT) is not in-scope for this test.

Return an Acknowledgement
The receiving HIT system being tested shall process the Z23 ACK error notification message correctly; the issue identified in the error notification must be made visible in the system.

1.9. IZ-AD-9_Admin_IIS-2Warnings

New administration resulting in multiple soft errors

Test Story

| **Description** |
| A patient is seen at a clinic. A new administration is recorded. The IIS is able to process the administration message but finds multiple soft errors (warnings) which it returns in the acknowledgement message. |

| **Comments** |
| The test case simulates the IIS issuing an acknowledgement warning due to an internal warning even though the message is valid. |

| **Pre-condition** |
| No PreCondition |

| **Post-Condition** |
| The returned warnings must be visible in the EHR. |

| **Test Objectives** |
| This test case assesses the ability of the EHR to accept an acknowledgement message with multiple soft errors (warnings) being returned by the IIS. |

| **Evaluation Criteria** |
| Administered Message: Validation Report with no Errors
Acknowledgement Message: An indication of warnings (See Juror Document) |

| **Notes** |
| No Note |

1.9.1. IZ-AD-9.1_Send_V04_Z22

Test Step Type: SUT_INITIATOR
Tests the ability to create a valid VXU^V04 message

Test Story

Description
A 4 year old female, Lacy Wells, is brought to a clinic for a well child visit by her guardian Janelle Trudeau. A clinic staff member collects basic patient demographic information including name, date of birth and sex. A clinic provider, Wilma Thomas (physician ID 654) reviews the patient's vaccination history and determines that the child requires DTaP, polio, MMR and varicella vaccinations. The child is covered by insurance and does not qualify for all Vaccine For Children (VFC) supplied vaccines. The guardian is given the appropriate Vaccine Information Sheet (VIS) to review. After reading it, she agrees that the child should receive all the vaccines. She also agrees that the data should be shared once it is incorporated into the local IIS. She indicates that all reminder and recall notifications should be routed to the provider. Appropriate doses of DTap-IPV (KINRIX) and MMRV (ProQuad) are selected from the clinic's stock of privately funded vaccines. A clinician, Lily Jackson (ID 7824) prepares and administers the doses to the patient and enters the data into the EHR and transmits it to the IIS.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives

Evaluation Criteria
Message Validation Report.

Notes
For new administration messages, the vaccine is communicated using NDC codes in RXA-5 (Administered Code). For a given vaccine, one or more NDC codes may be appropriate to message. For this reason, RXA-5.1 is categorized as "Value - Test Case Fixed List" and allows for multiple valid values. The Message Content and Example Message data contain a single representative valid NDC code for example purposes.
ONC has determined that, from a regulatory/program perspective, an HIT Module cannot be required to be able to generate messages with the Vaccine Funding Source OBX segment for 2015 Edition certification testing. For certification purposes, ONC permits Testers to ignore the error notification generated by the NIST Immunization Test Suite when this segment is missing. Since the product under test will have to meet state reporting requirements when implemented, and many states require this information, it may be beneficial for HIT Modules to demonstrate support for the Vaccine Funding Source OBX segment during 2015 Edition certification testing.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST EHRAPP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST EHRFAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST IISAPP	Indifferent
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST IISFAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150625115038.030-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	VXU	Value-Profile Fixed
MSH-9.2	Trigger Event	V04	Value-Profile Fixed
MSH-9.3	Message Structure	VXU_V04	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-AD-9.1_Send_V04_Z22	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z22	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST EHRFAC	Indifferent
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		Indifferent
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code		Indifferent
MSH-22.10	Organization Identifier		Indifferent
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST IISFAC	Indifferent
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		Indifferent
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code		Indifferent
MSH-23.10	Organization Identifier		Indifferent

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	Value-Profile Fixed
PID-3	Patient Identifier List		
PID-3.1	ID Number	22533	Presence-Content Indifferent
PID-3.4	Assigning Authority		
PID-3.4.1	Namespace ID	NIST-MPI-1	Presence-Content Indifferent
PID-3.4.2	Universal ID		Indifferent
PID-3.4.3	Universal ID Type		Indifferent
PID-3.5	Identifier Type Code	MR	Value-Test Case Fixed
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Wells	Presence-Content Indifferent
PID-5.2	Given Name	Lacy	Presence-Content Indifferent
PID-5.3	Second and Further Given Names or Initials Thereof		Indifferent
PID-5.7	Name Type Code	L	Value-Test Case Fixed
PID-6	Mother's Maiden Name		
PID-6.1	Family Name		
PID-6.1.1	Surname		Indifferent
PID-6.7	Name Type Code		Indifferent
PID-7	Date/Time of Birth		
PID-7.1	Time	20110430	Presence-Content Indifferent
PID-8	Administrative Sex	F	Value-Test Case Fixed
PID-10	Race		
PID-10.1	Identifier	2106-3	Value-Test Case Fixed
PID-10.2	Text	White	Presence-Test Case Proper
PID-10.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	12 North Oak St	Presence-Content Indifferent
PID-11.2	Other Designation		Indifferent
PID-11.3	City	Bozeman	Presence-Content Indifferent
PID-11.4	State or Province	MT	Presence-Content Indifferent
PID-11.5	Zip or Postal Code	59715	Presence-Content Indifferent
PID-11.6	Country	USA	Presence-Content Indifferent
PID-11.7	Address Type	P	Value-Test Case Fixed List
PID-13	Phone Number - Home		
PID-13.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
PID-13.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
PID-13.4	Email Address		NonPresence
PID-13.6	Area/City Code	406	Presence-Content Indifferent
PID-13.7	Local Number	5552914	Presence-Content Indifferent
PID-22	Ethnic Group		
PID-22.1	Identifier	2186-5	Value-Test Case Fixed
PID-22.2	Text	Not Hispanic or Latino	Presence-Test Case Proper
PID-22.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-24	Multiple Birth Indicator	N	Indifferent
PID-25	Birth Order	1	Indifferent
PID-29	Patient Death Date and Time		
PID-29.1	Time		NonPresence
PID-30	Patient Death Indicator	N	Indifferent

Location	Data Element	Data	Categorization
PD1-11	Publicity Code		
PD1-11.1	Identifier	08	Value-Test Case Fixed
PD1-11.2	Text	Reminder/recall - to provider	Presence-Test Case Proper
PD1-11.3	Name of Coding System	HL70215	Value-Profile Fixed
PD1-12	Protection Indicator	N	Indifferent
PD1-13	Protection Indicator Effective Date	20150625	Indifferent
PD1-16	Immunization Registry Status	A	Value-Test Case Fixed
PD1-17	Immunization Registry Status Effective Date	20110430	Presence-Content Indifferent
PD1-18	Publicity Code Effective Date	20150625	Presence-Content Indifferent

Location	Data Element	Data	Categorization
NK1-1	Set ID - NK1	1	Value-Profile Fixed
NK1-2	Name		
NK1-2.1	Family Name		
NK1-2.1.1	Surname	Trudeau	Presence-Content Indifferent
NK1-2.2	Given Name	Janelle	Presence-Content Indifferent
NK1-2.3	Second and Further Given Names or Initials Thereof		Indifferent
NK1-2.7	Name Type Code	L	Value-Test Case Fixed
NK1-3	Relationship		
NK1-3.1	Identifier	GRD	Value-Test Case Fixed
NK1-3.2	Text	Guardian	Presence-Test Case Proper
NK1-3.3	Name of Coding System	HL70063	Value-Profile Fixed
NK1-4	Address		
NK1-4.1	Street Address		
NK1-4.1.1	Street or Mailing Address	12 North Oak St	Presence-Content Indifferent
NK1-4.2	Other Designation		Indifferent
NK1-4.3	City	Bozeman	Presence-Content Indifferent
NK1-4.4	State or Province	MT	Presence-Content Indifferent
NK1-4.5	Zip or Postal Code	59715	Presence-Content Indifferent
NK1-4.6	Country	USA	Presence-Content Indifferent
NK1-4.7	Address Type	P	Value-Test Case Fixed List
NK1-5	Phone Number		
NK1-5.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
NK1-5.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
NK1-5.4	Email Address		Indifferent
NK1-5.6	Area/City Code	406	Presence-Content Indifferent
NK1-5.7	Local Number	5552914	Presence-Content Indifferent

ORC[*]

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	657	Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	68544	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Indifferent
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Indifferent
ORC-17.2	Text	NISTEHRFacility	Indifferent
ORC-17.3	Name of Coding System	HL70362	Indifferent

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier	7553	Presence-Content Indifferent
ORC-2.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	8671	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number	654	Presence-Content Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname	Thomas	Presence-Content Indifferent
ORC-12.3	Given Name	Wilma	Presence-Content Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof	Elizabeth	Presence-Content Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code	L	Value-Test Case Fixed
ORC-12.13	Identifier Type Code	MD	Value-Test Case Fixed List
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150625	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	00006-4171-01	Value-Test Case Fixed List
RXA-5.2	Text	ProQuad	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Indifferent
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	407453	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20151015	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	MSD	Value-Test Case Fixed
RXA-17.2	Text	Merck and Co., Inc.	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20150625	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	58160-0812-01	Value-Test Case Fixed List
RXA-5.2	Text	KINRIX	Presence-Test Case Proper
RXA-5.3	Name of Coding System	NDC	Value-Profile Fixed
RXA-6	Administered Amount	0.5	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	Value-Test Case Fixed
RXA-7.2	Text	mL	Presence-Test Case Proper
RXA-7.3	Name of Coding System	UCUM	Value-Profile Fixed
RXA-9	Administration Notes		
RXA-9.1	Identifier	00	Value-Test Case Fixed
RXA-9.2	Text	New Record	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number	7824	Presence-Content Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Jackson	Presence-Content Indifferent
RXA-10.3	Given Name	Lily	Presence-Content Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code	L	Value-Test Case Fixed
RXA-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	Presence-Content Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number	88402	Presence-Content Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time	20150730	Presence-Content Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	SKB	Value-Test Case Fixed
RXA-17.2	Text	GlaxoSmithKline	Presence-Test Case Proper
RXA-17.3	Name of Coding System	MVX	Value-Profile Fixed
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

RXR[*]

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C38299	Value-Test Case Fixed
RXR-1.2	Text	Subcutaneous	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	RD	Value-Test Case Fixed
RXR-2.2	Text	Right Deltoid	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	Value-Test Case Fixed
RXR-1.2	Text	Intramuscular	Presence-Test Case Proper
RXR-1.3	Name of Coding System	NCIT	Value-Profile Fixed
RXR-2	Administration Site		
RXR-2.1	Identifier	LD	Value-Test Case Fixed
RXR-2.2	Text	Left Deltoid	Presence-Test Case Proper
RXR-2.3	Name of Coding System	HL70163	Value-Profile Fixed

OBX[*]

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	PHC70	Value-Test Case Fixed
OBX-5.2	Text	Private	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V01	Value-Test Case Fixed
OBX-5.2	Text	Not VFC Eligible	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Indifferent
OBX-17.2	Text	per immunization	Indifferent
OBX-17.3	Name of Coding System	CDCPHINVS	Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300013411210806	Value-Test Case Fixed
OBX-5.2	Text	MMRV Vaccine (Measles, Mumps, Rubella, and Varicella) VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150625	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30963-3	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Source	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	1	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	PHC70	Value-Test Case Fixed
OBX-5.2	Text	Private	Presence-Test Case Proper
OBX-5.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	64994-7	Value-Test Case Fixed
OBX-3.2	Text	Vaccine Funding Program Eligibility	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	2	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	V01	Value-Test Case Fixed
OBX-5.2	Text	Not VFC Eligible	Presence-Test Case Proper
OBX-5.3	Name of Coding System	HL70064	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier	VXC40	Value-Test Case Fixed
OBX-17.2	Text	per immunization	Presence-Test Case Proper
OBX-17.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300017211210806	Value-Test Case Fixed
OBX-5.2	Text	Polio Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	3	Presence-Test Case Proper
OBX-5	Observation Value	20150625	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	5	Value-Profile Fixed
OBX-2	Value Type	CE	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	69764-9	Value-Test Case Fixed
OBX-3.2	Text	Document Type	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	4	Presence-Test Case Proper
OBX-5	Observation Value		
OBX-5.1	Identifier	253088698300003511210806	Value-Test Case Fixed
OBX-5.2	Text	DTaP (Diphtheria, Tetanus, Pertussis) Vaccine VIS	Presence-Test Case Proper
OBX-5.3	Name of Coding System	cdcgs1vis	Value-Profile Fixed
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	6	Value-Profile Fixed
OBX-2	Value Type	DT	Value-Test Case Fixed
OBX-3	Observation Identifier		
OBX-3.1	Identifier	29769-7	Value-Test Case Fixed
OBX-3.2	Text	Date Vis Presented	Presence-Test Case Proper
OBX-3.3	Name of Coding System	LN	Value-Profile Fixed
OBX-4	Observation Sub-ID	4	Presence-Test Case Proper
OBX-5	Observation Value	20150625	Presence-Content Indifferent
OBX-6	Units		
OBX-6.1	Identifier		NonPresence
OBX-6.2	Text		NonPresence
OBX-6.3	Name of Coding System		NonPresence
OBX-11	Observation Result Status	F	Value-Profile Fixed
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20150625	Presence-Content Indifferent
OBX-17	Observation Method		
OBX-17.1	Identifier		Indifferent
OBX-17.2	Text		Indifferent
OBX-17.3	Name of Coding System		Indifferent

Test Data Specification

Patient Information

Element	Data
Patient Name	Lacy Wells
Mother's Maiden Name	
ID Number	22533
Date/Time of Birth	04/30/2011
Administrative Sex	Female
Patient Address	12 North Oak St Bozeman MT 59715 USA
Local Number	(406)555-2914
Race	White
Ethnic Group	Not Hispanic or Latino
Multiple Birth Indicator	No
Birth Order	1

Immunization Registry Information

Element	Data
Immunization Registry Status	Active
Immunization Registry Status Effective Date	04/30/2011
Publicity Code	Reminder/recall - to provider
Publicity Code Effective Date	06/25/2015
Protection Indicator	No
Protection Indicator Effective Date	06/25/2015

Guardian or Responsible Party

Element	Data
Name	Janelle Trudeau
Relationship	Guardian
Address	12 North Oak St Bozeman MT 59715 USA
Phone Number	(406)555-2914

Vaccine Administration Information[*]

Vaccine Administration Information

Element	Data
Administered Vaccine	ProQuad
Date/Time Start of Administration	06/25/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	407453
Substance Expiration Date	10/15/2015
Substance Manufacturer Name	Merck and Co., Inc.
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Subcutaneous
Administration Site	Right Deltoid
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Private
Vaccine Funding Program Eligibility	Not VFC Eligible
Document Type	MMRV Vaccine (Measles, Mumps, Rubella, and Varicella) VIS
Date Vis Presented	06/25/2015

Vaccine Administration Information

Element	Data
Administered Vaccine	KINRIX
Date/Time Start of Administration	06/25/2015
Administered Amount	0.5
Administered Units	mL
Administration Notes	New Record
Administering Provider	Lily Jackson
Substance Lot Number	88402
Substance Expiration Date	07/30/2015
Substance Manufacturer Name	GlaxoSmithKline
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	Intramuscular
Administration Site	Left Deltoid
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	Wilma Thomas

Element	Data
Vaccine Funding Source	Private
Vaccine Funding Program Eligibility	Not VFC Eligible
Document Type	Polio Vaccine VIS
Date Vis Presented	06/25/2015
Document Type	DTaP (Diphtheria, Tetanus, Pertussis) Vaccine VIS
Date Vis Presented	06/25/2015

1.9.2. IZ-AD-9.2_Receive_ACK_Z23

Test Step Type: TA_RESPONDER
Tests the ability to consume an ACK message containing multiple warnings

Test Story

Description
A mapping error in the IIS software results in the IIS being unable to recognize either administration site sent in RXR-2 even though it is valid. The acknowledgement message returned contains warnings for the invalid values.

Comments
No Comments

Pre-condition
A VXU message is generated by the EHR.

Post-Condition
No PostCondition

Test Objectives
Support for accepting an acknowledgement message with multiple warnings being returned by the IIS and to display some notification to an end user.

Evaluation Criteria
The warnings returned in the acknowledgement message are visible in the system responsible for the content of the administration message.

Notes
Important note regarding the MSH-10 and MSA-2: The NIST acknowledgment message is predefined and is based on the VXU message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the ACK message. The NIST ACK test message can be modified such that MSA-2 matches MSH-10 of the VXU message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator			
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NISTIISAPP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NISTIISFAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NISTEHRAPP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NISTEHRFAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150625115038.044-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	ACK	
MSH-9.2	Trigger Event	V04	
MSH-9.3	Message Structure	ACK	
MSH-10	Message Control ID	NIST-IZ-AD-9.2_Receive_ACK_Z23	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z23	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NISTIISFAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code		
MSH-22.10	Organization Identifier		
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NISTEHRFAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code		
MSH-23.10	Organization Identifier		

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AE	
MSA-2	Message Control ID	NIST-IZ-AD-9.1_Send_V04_Z22	

ERR[*]

ERR : Error

Location	Data Element	Data	Categorization
ERR-2	Error Location		
ERR-2.1	Segment ID	RXR	
ERR-2.2	Segment Sequence	1	
ERR-2.3	Field Position	2	
ERR-2.4	Field Repetition	1	
ERR-2.5	Component Number	1	
ERR-2.6	Sub-Component Number		
ERR-3	HL7 Error Code		
ERR-3.1	Identifier	999	
ERR-3.2	Text	Application error	
ERR-3.3	Name of Coding System	HL70357	
ERR-4	Severity	W	
ERR-5	Application Error Code		
ERR-5.1	Identifier	5	
ERR-5.2	Text	Table value not found	
ERR-5.3	Name of Coding System	HL70533	
ERR-8	User Message	Administration Site not recognized - site data will not be saved	

ERR : Error

Location	Data Element	Data	Categorization
ERR-2	Error Location		
ERR-2.1	Segment ID	RXR	
ERR-2.2	Segment Sequence	2	
ERR-2.3	Field Position	2	
ERR-2.4	Field Repetition	1	
ERR-2.5	Component Number	1	
ERR-2.6	Sub-Component Number		
ERR-3	HL7 Error Code		
ERR-3.1	Identifier	999	
ERR-3.2	Text	Application error	
ERR-3.3	Name of Coding System	HL70357	
ERR-4	Severity	W	
ERR-5	Application Error Code		
ERR-5.1	Identifier	5	
ERR-5.2	Text	Table value not found	
ERR-5.3	Name of Coding System	HL70533	
ERR-8	User Message	Administration Site not recognized - site data will not be saved	

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Return an Acknowledgement	
Test Case ID	IZ-AD-9_Admin_IIS-2Warnings
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass / Fail
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the health information technology's ability to receive and process a Return an Acknowledgement Z23 message (in response to a "Send Unsolicited Immunization Update Using a VXU" Z22 message) in which an Error is returned in the message.

The exact wording and format of the display in the health information technology (HIT) is not in-scope for this test.

Return an Acknowledgement
The receiving HIT system being tested shall process the Z23 ACK error notification message correctly; the issue identified in the error notification must be made visible in the system.

1.10. IZ-AD-10_Historical_IIS-SysError

Historical administration resulting in system error

Test Story

Description
A patient is seen at a clinic. A historical vaccination is recorded but the IIS is unable to process the administration message, rejects it and returns a fatal error in the acknowledgement message.

Comments
The test case simulates the IIS issuing an acknowledgement error due to an internal error even though the message is valid.

Pre-condition
No PreCondition

Post-Condition
The returned error must be visible in the EHR.

Test Objectives
This test case assesses the ability of the EHR to accept an acknowledgement message with a fatal system error being returned by the IIS.

Evaluation Criteria
Administered Message: Validation Report with no Errors Acknowledgement Message: An indication of a error (See Juror Document)

Notes
No Note

1.10.1. IZ-AD-10.1_Send_V04_Z22

Test Step Type: SUT_INITIATOR
Tests the ability to create a valid VXU^V04 message

Test Story

Description
A 68 year old male, Manuel Diego Vasquez, comes to a clinic for a physical. A clinic staff member collects basic patient demographic information including name, date of birth and sex. He declines further recall and reminder notifications. The patient reports that he received a pneumococcal vaccination at a local pharmacy on October 21, 2014. The clinic staff determine that no further vaccinations are required. A clinician, Lily Jackson (ID 7824) enters the historical data into the EHR and transmits it to the IIS.

Comments
No Comments

Pre-condition
No PreCondition

Post-Condition
No PostCondition

Test Objectives

Evaluation Criteria
Message Validation Report.

Notes
No Note

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST EHRAPP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST EHRFAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST IISAPP	Presence-Configuration
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST IISFAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150625072816.601-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	VXU	Value-Profile Fixed
MSH-9.2	Trigger Event	V04	Value-Profile Fixed
MSH-9.3	Message Structure	VXU_V04	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-AD-10.1_Send_V04_Z22	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z22	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST EHRFAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		Indifferent
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code		Indifferent
MSH-22.10	Organization Identifier		Indifferent
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST IISFAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		Indifferent
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code		Indifferent
MSH-23.10	Organization Identifier		Indifferent

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	Value-Profile Fixed
PID-3	Patient Identifier List		
PID-3.1	ID Number	21142	Presence-Content Indifferent
PID-3.4	Assigning Authority		
PID-3.4.1	Namespace ID	NIST-MPI-1	Presence-Content Indifferent
PID-3.4.2	Universal ID		Indifferent
PID-3.4.3	Universal ID Type		Indifferent
PID-3.5	Identifier Type Code	MR	Value-Test Case Fixed
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Vasquez	Presence-Content Indifferent
PID-5.2	Given Name	Manuel	Presence-Content Indifferent
PID-5.3	Second and Further Given Names or Initials Thereof	Diego	Presence-Content Indifferent
PID-5.7	Name Type Code	L	Value-Test Case Fixed
PID-6	Mother's Maiden Name		
PID-6.1	Family Name		
PID-6.1.1	Surname		Indifferent
PID-6.7	Name Type Code		Indifferent
PID-7	Date/Time of Birth		
PID-7.1	Time	19470215	Presence-Content Indifferent
PID-8	Administrative Sex	M	Value-Test Case Fixed
PID-10	Race		
PID-10.1	Identifier	2106-3	Value-Test Case Fixed
PID-10.2	Text	White	Presence-Test Case Proper
PID-10.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	227 Park Ave	Presence-Content Indifferent
PID-11.2	Other Designation		Indifferent
PID-11.3	City	Bozeman	Presence-Content Indifferent
PID-11.4	State or Province	MT	Presence-Content Indifferent
PID-11.5	Zip or Postal Code	59715	Presence-Content Indifferent
PID-11.6	Country	USA	Presence-Content Indifferent
PID-11.7	Address Type	P	Value-Test Case Fixed List
PID-13[1]	Phone Number - Home		
PID-13[1].2	Telecommunication Use Code	PRN	Value-Test Case Fixed
PID-13[1].3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
PID-13[1].4	Email Address		NonPresence
PID-13[1].6	Area/City Code	406	Presence-Content Indifferent
PID-13[1].7	Local Number	5555815	Presence-Content Indifferent
PID-13[2]	Phone Number - Home		
PID-13[2].2	Telecommunication Use Code	NET	Value-Test Case Fixed
PID-13[2].3	Telecommunication Equipment Type		Indifferent
PID-13[2].4	Email Address	Manuel.Vasquez@isp.com	Presence-Content Indifferent
PID-13[2].6	Area/City Code		NonPresence
PID-13[2].7	Local Number		NonPresence
PID-22	Ethnic Group		
PID-22.1	Identifier	2135-2	Value-Test Case Fixed
PID-22.2	Text	Hispanic or Latino	Presence-Test Case Proper
PID-22.3	Name of Coding System	CDCREC	Value-Profile Fixed
PID-24	Multiple Birth Indicator	N	Value-Test Case Fixed
PID-25	Birth Order	1	Indifferent
PID-29	Patient Death Date and Time		
PID-29.1	Time		NonPresence
PID-30	Patient Death Indicator	N	Value-Test Case Fixed

PD1 : Patient Additional Demographic

Location	Data Element	Data	Categorization
PD1-11	Publicity Code		
PD1-11.1	Identifier	01	Value-Test Case Fixed
PD1-11.2	Text	No reminder/recall	Presence-Test Case Proper
PD1-11.3	Name of Coding System	HL70215	Value-Profile Fixed
PD1-12	Protection Indicator	N	Value-Test Case Fixed
PD1-13	Protection Indicator Effective Date	20150625	Presence-Content Indifferent
PD1-16	Immunization Registry Status	A	Value-Test Case Fixed
PD1-17	Immunization Registry Status Effective Date	20150625	Presence-Content Indifferent
PD1-18	Publicity Code Effective Date	20150625	Presence-Content Indifferent

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	Value-Profile Fixed
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		Indifferent
ORC-2.2	Namespace ID		Indifferent
ORC-2.3	Universal ID		Indifferent
ORC-2.4	Universal ID Type		Indifferent
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	31165	Presence-Content Indifferent
ORC-3.2	Namespace ID	NIST-AA-IZ-2	Presence-Content Indifferent
ORC-3.3	Universal ID		Indifferent
ORC-3.4	Universal ID Type		Indifferent
ORC-10	Entered By		
ORC-10.1	ID Number	7824	Presence-Content Indifferent
ORC-10.2	Family Name		
ORC-10.2.1	Surname	Jackson	Presence-Content Indifferent
ORC-10.3	Given Name	Lily	Presence-Content Indifferent
ORC-10.4	Second and Further Given Names or Initials Thereof	Suzanne	Presence-Content Indifferent
ORC-10.9	Assigning Authority		
ORC-10.9.1	Namespace ID	NIST-PI-1	Presence-Content Indifferent
ORC-10.9.2	Universal ID		Indifferent
ORC-10.9.3	Universal ID Type		Indifferent
ORC-10.10	Name Type Code	L	Value-Test Case Fixed
ORC-10.13	Identifier Type Code	PRN	Value-Test Case Fixed List
ORC-12	Ordering Provider		
ORC-12.1	ID Number		Indifferent
ORC-12.2	Family Name		
ORC-12.2.1	Surname		Indifferent
ORC-12.3	Given Name		Indifferent
ORC-12.4	Second and Further Given Names or Initials Thereof		Indifferent
ORC-12.9	Assigning Authority		
ORC-12.9.1	Namespace ID		Indifferent
ORC-12.9.2	Universal ID		Indifferent
ORC-12.9.3	Universal ID Type		Indifferent
ORC-12.10	Name Type Code		Indifferent
ORC-12.13	Identifier Type Code		Indifferent
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	Presence-Content Indifferent
ORC-17.2	Text	NISTEHRFacility	Presence-Content Indifferent
ORC-17.3	Name of Coding System	HL70362	Value-Profile Fixed

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	Value-Profile Fixed
RXA-2	Administration Sub-ID Counter	1	Value-Profile Fixed
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20141021	Presence-Content Indifferent
RXA-5	Administered Code		
RXA-5.1	Identifier	152	Value-Test Case Fixed
RXA-5.2	Text	Pneumococcal Conjugate, unspecified formulation	Presence-Test Case Proper
RXA-5.3	Name of Coding System	CVX	Value-Profile Fixed
RXA-6	Administered Amount	999	Presence-Test Case Proper
RXA-7	Administered Units		
RXA-7.1	Identifier		Indifferent
RXA-7.2	Text		Indifferent
RXA-7.3	Name of Coding System		Indifferent
RXA-9	Administration Notes		
RXA-9.1	Identifier	01	Value-Test Case Fixed
RXA-9.2	Text	Historical Administration	Presence-Test Case Proper
RXA-9.3	Name of Coding System	NIP001	Value-Profile Fixed
RXA-10	Administering Provider		
RXA-10.1	ID Number		Indifferent
RXA-10.2	Family Name		
RXA-10.2.1	Surname		Indifferent
RXA-10.3	Given Name		Indifferent
RXA-10.4	Second and Further Given Names or Initials Thereof		Indifferent
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		Indifferent
RXA-10.9.2	Universal ID		Indifferent
RXA-10.9.3	Universal ID Type		Indifferent
RXA-10.10	Name Type Code		Indifferent
RXA-10.13	Identifier Type Code		Indifferent
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		Indifferent
RXA-11.4.2	Universal ID		Indifferent
RXA-11.4.3	Universal ID Type		Indifferent
RXA-15	Substance Lot Number		Indifferent
RXA-16	Substance Expiration Date		
RXA-16.1	Time		Indifferent
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		Indifferent
RXA-17.2	Text		Indifferent
RXA-17.3	Name of Coding System		Indifferent
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		NonPresence
RXA-18.2	Text		NonPresence
RXA-18.3	Name of Coding System		NonPresence
RXA-20	Completion Status	CP	Value-Test Case Fixed
RXA-21	Action Code - RXA	A	Value-Test Case Fixed

Test Data Specification

Patient Information

Element	Data
Patient Name	Manuel Diego Vasquez
Mother's Maiden Name	
ID Number	21142
Date/Time of Birth	02/15/1947
Administrative Sex	Male
Patient Address	227 Park Ave Bozeman MT 59715 USA
Local Number	(406)555-5815
Email	Manuel.Vasquez@isp.com
Race	White
Ethnic Group	Hispanic or Latino
Multiple Birth Indicator	No
Birth Order	1

Immunization Registry Information

Element	Data
Immunization Registry Status	Active
Immunization Registry Status Effective Date	06/25/2015
Publicity Code	No reminder/recall
Publicity Code Effective Date	06/25/2015
Protection Indicator	No
Protection Indicator Effective Date	06/25/2015

Vaccine Administration Information

Element	Data
Administered Vaccine	Pneumococcal Conjugate, unspecified formulation
Date/Time Start of Administration	10/21/2014
Administered Amount	999
Administered Units	
Administration Notes	Historical Administration
Administering Provider	
Substance Lot Number	
Substance Expiration Date	
Substance Manufacturer Name	
Substance/Treatment Refusal Reason	
Completion Status	Complete
Action Code	Add
Route	
Administration Site	
Entering Organization	NISTEHRFacility
Entered By	Lily Jackson
Ordered By	

1.10.2. IZ-AD-10.2_Receive_ACK_Z23

Test Step Type: TA_RESPONDER
Tests the ability to consume an ACK message containing a system error

Test Story

Description
Due to an error in the IIS software, the IIS is unable to recognize the HL7 version ID sent in MSH-12 even though it is valid. The acknowledgement message returned contains an error for an unsupported version ID.

Comments
No Comments

Pre-condition
A VXU message is generated by the EHR.

Post-Condition
No PostCondition

Test Objectives
Support for accepting an acknowledgement message with a fatal system error being returned by the IIS and to display some notification to an end user.

Evaluation Criteria
The error returned in the acknowledgement message is visible in the system responsible for the content of the administration message.

Notes
Important note regarding the MSH-10 and MSA-2: The NIST acknowledgment message is predefined and is based on the VXU message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the ACK message. The NIST ACK test message can be modified such that MSA-2 matches MSH-10 of the VXU message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IIS APP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IIS FAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHR APP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHR FAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150625072816.602-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	ACK	
MSH-9.2	Trigger Event	V04	
MSH-9.3	Message Structure	ACK	
MSH-10	Message Control ID	NIST-IZ-AD-10.2_Receive_ACK_Z23	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z23	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IIS FAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID		
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code		
MSH-22.10	Organization Identifier		
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHR FAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID		
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code		
MSH-23.10	Organization Identifier		

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AR	
MSA-2	Message Control ID	NIST-IZ-AD-10.1_Send_V04_Z22	

ERR : Error

Location	Data Element	Data	Categorization
ERR-2	Error Location		
ERR-2.1	Segment ID	MSH	
ERR-2.2	Segment Sequence	1	
ERR-2.3	Field Position	12	
ERR-2.4	Field Repetition	1	
ERR-2.5	Component Number	1	
ERR-2.6	Sub-Component Number		
ERR-3	HL7 Error Code		
ERR-3.1	Identifier	203	
ERR-3.2	Text	Unsupported Version ID	
ERR-3.3	Name of Coding System	HL70357	
ERR-4	Severity	E	
ERR-5	Application Error Code		
ERR-5.1	Identifier		
ERR-5.2	Text		
ERR-5.3	Name of Coding System		
ERR-8	User Message	Version ID not recognized - message rejected	

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Return an Acknowledgement	
Test Case ID	IZ-AD-10_Historical_IIS-SysError
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass / Fail
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the health information technology's ability to receive and process a Return an Acknowledgement Z23 message (in response to a "Send Unsolicited Immunization Update Using a VXU" Z22 message) in which an Error is returned in the message.

The exact wording and format of the display in the health information technology (HIT) is not in-scope for this test.

Return an Acknowledgement
The receiving HIT system being tested shall process the Z23 ACK error notification message correctly; the issue identified in the error notification must be made visible in the system.

2. Evaluated History and Forecast Group

Test the EHR-S capability to: (1) To create well-formed queries (2) Accept the response messages The possibilities include: (1) evaluated history and forecast (2) too many patients found, or (3) no patients found. A juror document (inspection check list) is provided that indicates the content that is expected to be displayed. (3) Display of evaluated history and forecast Test Cases consists of 2 steps: (1) create query messages based on Immunization Messaging Standard (Z44 Profile) and specific Test Data, and (2) receive (Z42 Profile) messages and display evaluated history and forecast OR receive (Z33 Profile) and display too many patients found or no patients found.

Test Story

Description
null

Comments
null

Pre-condition
null

Post-Condition
null

Test Objectives
null

Evaluation Criteria
null

Notes
null

2.1. IZ-QR-1_Query_Child

Query for a child with immunization history. A response message with evaluated history and forecast is returned.

Test Story

Description
A male child patient, Cameron A. Fairchild, is brought to the clinic for an annual visit. A staff person locates his medical record in the EHR-S. The staff person confirms demographic information, including address. The staff person triggers a request to the IIS for an evaluated history and forecast for the child. The IIS performs a search for Cameron A. Fairchild and finds one high-confidence match. The IIS generates an evaluated history and forecast for Cameron and returns this to the EHR-S. One dose of vaccine was not administrated at the correct age and is marked as not valid. The EHR-S displays the evaluated history and forecast, including the not valid dose.

Comments
No Comments

Pre-condition
Person exists in the querying system with the complete demographics as provided in the Test Data Specification. Person has Medical Record Number (MR). Person does not have existing immunization events in their EHR. Person does have an immunization history in the IIS (simulated by the NIST Test Tool).

Post-Condition
The clinician is able to view the evaluated history and forecast from the IIS. There is no obligation to incorporate the data into the EHR-S or maintain the displayed evaluated history and forecast.

Test Objectives
Evaluates EHR-S ability to create a well formed query for a child. Evaluates EHR-S ability to accept and display a response with evaluated history and forecast for that person.

Evaluation Criteria
Tester inspects patient record; confirms that the patients does not have existing immunization events. Confirms valid query message using Message Validation Report. Confirms valid receipt and display of response message using the Juror Document.

Notes
The NIST tool is simulating a response from the IIS. **Important note regarding the Query Tag (QPD-2):** The NIST response message is predefined and is based on the query message. Most systems will automatically create the query tag (Identifier) and will require it for importing, linking, and processing the response message. The NIST test message can be modified such that the query tag matches that query tag generated by the system-under test.

2.1.1. IZ-QR-1.1_Query_Q11_Z44

Test Step Type: SUT_INITIATOR
This query should return a response for a child where an evaluated history and forecast are found

Test Story

Description
A male child patient, Cameron A. Fairchild, is brought to the clinic for an annual visit. A staff person locates his medical record in the EHR-S. The staff person confirms demographic information, including address. The Staff person triggers a request to the IIS for an evaluated history and forecast for the child.

Comments
Most of the test data is categorized as Test Case Fixed. It is important that the data is entered into the querying system as specified to enable linking the response message to the patient record.

Pre-condition
Person exists in the system with the complete demographics as provided in the Test Data Specification.
Person has Medical Record Number (MR).
Person does not have existing immunization events in their EHR.
Person does have an immunization history in the IIS.

Post-Condition
The IIS return an evaluated history and forecast for the person.

Test Objectives
Test the ability of the system to successfully create a query message based on the given test data.

Evaluation Criteria
Tester inspects patient record; confirms that the patients does not have existing immunization events.
Confirms valid query message using Message Validation Report.

Notes
If the HIT Module being tested is unable to control the Patient ID Number value that it creates (1) QPD-3.1 in the Query message can be populated with a different value than the one provided in the test data; (2) the Tester can ignore the associated error notification generated by the Tool; and (3) the Response message also must be modified accordingly.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NISTEHRAPP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NISTEHRFAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NISTIISAPP	Presence-Configuration
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NISTIISFAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20141031145233-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	QBP	Value-Profile Fixed
MSH-9.2	Trigger Event	Q11	Value-Profile Fixed
MSH-9.3	Message Structure	QBP_Q11	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-QR-1.1_Query_Q11_Z44	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z44	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NISTEHRFAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-1	Presence-Configuration
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-22.10	Organization Identifier	100-6482	Presence-Configuration
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NISTIISFAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-1	Presence-Configuration
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-23.10	Organization Identifier	100-3322	Presence-Configuration

QPD : Query Parameter Definition

Location	Data Element	Data	Categorization
QPD-1	Message Query Name		
QPD-1.1	Identifier	Z44	Value-Profile Fixed
QPD-1.2	Text	Request Evaluated History and Forecast	Value-Profile Fixed
QPD-1.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
QPD-2	Query Tag	IZ-1.1-2015	Presence-System Generated
QPD-3	PatientList		
QPD-3.1	ID Number	171122	Value-Test Case Fixed
QPD-3.4	Assigning Authority		
QPD-3.4.1	Namespace ID	NIST-MPI-1	Value-Test Case Fixed
QPD-3.4.2	Universal ID		Indifferent
QPD-3.4.3	Universal ID Type		Indifferent
QPD-3.5	Identifier Type Code	MR	Value-Test Case Fixed
QPD-4	PatientName		
QPD-4.1	Family Name		
QPD-4.1.1	Surname	Fairchild	Value-Test Case Fixed
QPD-4.2	Given Name	Cameron	Value-Test Case Fixed
QPD-4.3	Second and Further Given Names or Initials Thereof	A	Value-Test Case Fixed
QPD-4.7	Name Type Code	L	Value-Test Case Fixed
QPD-5	PatientMotherMaidenName		
QPD-5.1	Family Name		
QPD-5.1.1	Surname	Fairlady	Value-Test Case Fixed
QPD-5.7	Name Type Code	M	Value-Profile Fixed
QPD-6	PatientDateOfBirth		
QPD-6.1	Time	20090214	Value-Test Case Fixed
QPD-7	Patient Sex	M	Value-Test Case Fixed
QPD-8	Patient Address		
QPD-8.1	Street Address		
QPD-8.1.1	Street or Mailing Address	105 Laurel Run Rd	Value-Test Case Fixed
QPD-8.2	Other Designation		Indifferent
QPD-8.3	City	Bozeman	Value-Test Case Fixed
QPD-8.4	State or Province	MT	Value-Test Case Fixed
QPD-8.5	Zip or Postal Code		Indifferent
QPD-8.6	Country		Indifferent
QPD-8.7	Address Type	P	Value-Test Case Fixed List
QPD-9	Phone		
QPD-9.2	Telecommunication Use Code		Indifferent
QPD-9.3	Telecommunication Equipment Type		Indifferent
QPD-9.4	Email Address		
QPD-9.6	Area/City Code		Indifferent
QPD-9.7	Local Number		Indifferent
QPD-10	Multiple birth indicator		Indifferent
QPD-11	Birth order		Indifferent

RCP : Response Control Parameter

Location	Data Element	Data	Categorization
RCP-1	Query Priority	I	Value-Test Case Fixed
RCP-2	Quantity Limited Request		
RCP-2.1	Quantity	1	Value-Profile Fixed
RCP-2.2	Units		
RCP-2.2.1	Identifier	RD	Value-Profile Fixed
RCP-2.2.2	Text	Records	Presence-Test Case Proper
RCP-2.2.3	Name of Coding System	HL70126	Value-Profile Fixed

Test Data Specification

Patient Information

Element	Data
Patient Name	Cameron A Fairchild
Mother's Maiden Name	Fairlady
ID Number	171122
Date/Time of Birth	02/14/2009
Sex	Male
Patient Address	105 Laurel Run Rd Bozeman MT
Patient Phone	
Birth Indicator	No
Birth Order	

Element	Data
Patient Name	Cameron A Fairchild
Mother's Maiden Name	Fairlady
ID Number	171122
Date/Time of Birth	02/14/2009
Sex	Male
Patient Address	105 Laurel Run Rd Bozeman MT

2.1.2. IZ-QR-1.2_Response_K11_Z42

Test Step Type: TA_RESPONDER
Return response to query for a child with an evaluated history and forecast

Test Story

Description
The IIS performs a search for Cameron A. Fairchild and finds one high-confidence match. The IIS generates an evaluated history and forecast for Cameron and returns this to the EHR-S. One dose of vaccine was not administrated at the correct age and is marked as not valid. The EHR-S displays the evaluated history and forecast, including the not valid dose.

Comments
No Comments

Pre-condition
A query is performed by the sending system. The IIS (simulated by the NIST test tool) contains an immunization events for the person.

Post-Condition
The response is made available to the EHR-S for processing. The clinician is able to view the evaluated history and forecast from the IIS. There is no obligation to incorporate the data into the EHR-S or maintain the displayed evaluated history and forecast.

Test Objectives
Receive a response message containing the evaluated history and forecast; display evaluated history and forecast.

Evaluation Criteria
Confirms valid receipt and display of response message using the Juror Document.

Notes
Important note regarding the Query Tag (QPD-2): The NIST response message is predefined and is based on the query message. Most systems will automatically create the query tag (Identifier) and will require it for importing, linking, and processing the response message. The NIST test message can be modified such that the query tag matches that query tag generated by the system-under test. **Important note regarding the MSH-10 and MSA-2:** The NIST response message is predefined and is based on the query message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the response message. The NIST response test message can be modified such that MSA-2 matches MSH-10 of the query message generated by the system-under test.

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IISAPP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IISFAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHRAPP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHRFAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20151031145233-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	RSP	
MSH-9.2	Trigger Event	K11	
MSH-9.3	Message Structure	RSP_K11	
MSH-10	Message Control ID	NIST-IZ-QR-1.2_Response_K11_Z42	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z42	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IISFAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-1	
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code	XX	
MSH-22.10	Organization Identifier	100-3322	
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHRFAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-1	
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code	XX	
MSH-23.10	Organization Identifier	100-6482	

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AA	
MSA-2	Message Control ID	NIST-IZ-QR-1.1_Query_Q11_Z44	

QAK : Query Acknowledgment

Location	Data Element	Data	Categorization
QAK-1	Query Tag	IZ-1.1-2015	
QAK-2	Query Response Status	OK	
QAK-3	Message Query Name		
QAK-3.1	Identifier	Z44	
QAK-3.2	Text	Request Evaluated History and Forecast	
QAK-3.3	Name of Coding System	CDCPHINVS	

QPD : Query Parameter Definition

Location	Data Element	Data	Categorization
QPD-1	Message Query Name		
QPD-1.1	Identifier	Z44	
QPD-1.2	Text	Request Evaluated History and Forecast	
QPD-1.3	Name of Coding System	CDCPHINVS	
QPD-2	Query Tag	IZ-1.1-2015	
QPD-3	PatientList		
QPD-3.1	ID Number	171122	
QPD-3.4	Assigning Authority		
QPD-3.4.1	Namespace ID	NIST-MPI-1	
QPD-3.4.2	Universal ID		
QPD-3.4.3	Universal ID Type		
QPD-3.5	Identifier Type Code	MR	
QPD-4	PatientName		
QPD-4.1	Family Name		
QPD-4.1.1	Surname	Fairchild	
QPD-4.2	Given Name	Cameron	
QPD-4.3	Second and Further Given Names or Initials Thereof	A	
QPD-4.7	Name Type Code	L	
QPD-5	PatientMotherMaidenName		
QPD-5.1	Family Name		
QPD-5.1.1	Surname	Fairlady	
QPD-5.7	Name Type Code	M	
QPD-6	PatientDateOfBirth		
QPD-6.1	Time	20090214	
QPD-7	Patient Sex	M	
QPD-8	Patient Address		
QPD-8.1	Street Address		
QPD-8.1.1	Street or Mailing Address	105 Laurel Run Rd	
QPD-8.2	Other Designation		
QPD-8.3	City	Bozeman	
QPD-8.4	State or Province	MT	
QPD-8.5	Zip or Postal Code		
QPD-8.6	Country		
QPD-8.7	Address Type	P	
QPD-9	Phone		
QPD-9.2	Telecommunication Use Code		
QPD-9.3	Telecommunication Equipment Type		
QPD-9.4	Email Address		
QPD-9.6	Area/City Code		
QPD-9.7	Local Number		
QPD-10	Multiple birth indicator		
QPD-11	Birth order		

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	
PID-3[1]	Patient Identifier List		
PID-3[1].1	ID Number	171122	
PID-3[1].4	Assigning Authority		
PID-3[1].4.1	Namespace ID	NIST-MPI-1	
PID-3[1].4.2	Universal ID		
PID-3[1].4.3	Universal ID Type		
PID-3[1].5	Identifier Type Code	MR	
PID-3[2]	Patient Identifier List		
PID-3[2].1	ID Number	34500907	
PID-3[2].4	Assigning Authority		
PID-3[2].4.1	Namespace ID	NIST-IIS-MPI	
PID-3[2].4.2	Universal ID		
PID-3[2].4.3	Universal ID Type		
PID-3[2].5	Identifier Type Code	SR	
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Fairchild	
PID-5.2	Given Name	Cameron	
PID-5.3	Second and Further Given Names or Initials Thereof	A	
PID-5.7	Name Type Code	L	
PID-7	Date/Time of Birth		
PID-7.1	Time	20090214	
PID-8	Administrative Sex	M	
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	105 Laurel Run Rd	
PID-11.2	Other Designation		
PID-11.3	City	Bozeman	
PID-11.4	State or Province	MT	
PID-11.5	Zip or Postal Code		
PID-11.6	Country		
PID-11.7	Address Type	P	
PID-30	Patient Death Indicator		

ORC[*]

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		
ORC-2.2	Namespace ID		
ORC-2.3	Universal ID		
ORC-2.4	Universal ID Type		
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	197023	
ORC-3.2	Namespace ID	NIST-AA-IZ-2	
ORC-3.3	Universal ID		
ORC-3.4	Universal ID Type		
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	
ORC-17.2	Text	NISTEHRFacility	
ORC-17.3	Name of Coding System	HL70362	

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		
ORC-2.2	Namespace ID		
ORC-2.3	Universal ID		
ORC-2.4	Universal ID Type		
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	197027	
ORC-3.2	Namespace ID	NIST-AA-IZ-2	
ORC-3.3	Universal ID		
ORC-3.4	Universal ID Type		
ORC-17	Entering Organization		
ORC-17.1	Identifier		
ORC-17.2	Text		
ORC-17.3	Name of Coding System		

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		
ORC-2.2	Namespace ID		
ORC-2.3	Universal ID		
ORC-2.4	Universal ID Type		
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	197028	
ORC-3.2	Namespace ID	NIST-AA-IZ-2	
ORC-3.3	Universal ID		
ORC-3.4	Universal ID Type		
ORC-17	Entering Organization		
ORC-17.1	Identifier		
ORC-17.2	Text		
ORC-17.3	Name of Coding System		

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		
ORC-2.2	Namespace ID		
ORC-2.3	Universal ID		
ORC-2.4	Universal ID Type		
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	197028	
ORC-3.2	Namespace ID	NIST-AA-IZ-2	
ORC-3.3	Universal ID		
ORC-3.4	Universal ID Type		
ORC-17	Entering Organization		
ORC-17.1	Identifier		
ORC-17.2	Text		
ORC-17.3	Name of Coding System		

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		
ORC-2.2	Namespace ID		
ORC-2.3	Universal ID		
ORC-2.4	Universal ID Type		
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	197028	
ORC-3.2	Namespace ID	NIST-AA-IZ-2	
ORC-3.3	Universal ID		
ORC-3.4	Universal ID Type		
ORC-17	Entering Organization		
ORC-17.1	Identifier		
ORC-17.2	Text		
ORC-17.3	Name of Coding System		

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		
ORC-2.2	Namespace ID		
ORC-2.3	Universal ID		
ORC-2.4	Universal ID Type		
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	9999	
ORC-3.2	Namespace ID	NIST-AA-IZ-2	
ORC-3.3	Universal ID		
ORC-3.4	Universal ID Type		
ORC-17	Entering Organization		
ORC-17.1	Identifier	NISTEHRFAC	
ORC-17.2	Text	NISTEHRFacility	
ORC-17.3	Name of Coding System	HL70362	

RXA[*]

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	
RXA-2	Administration Sub-ID Counter	1	
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20090415	
RXA-5	Administered Code		
RXA-5.1	Identifier	45	
RXA-5.2	Text	Hep B Unspec	
RXA-5.3	Name of Coding System	CVX	
RXA-6	Administered Amount	999	
RXA-7	Administered Units		
RXA-7.1	Identifier		
RXA-7.2	Text		
RXA-7.3	Name of Coding System		
RXA-10	Administering Provider		
RXA-10.1	ID Number		
RXA-10.2	Family Name		
RXA-10.2.1	Surname		
RXA-10.3	Given Name		
RXA-10.4	Second and Further Given Names or Initials Thereof		
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		
RXA-10.9.2	Universal ID		
RXA-10.9.3	Universal ID Type		
RXA-10.10	Name Type Code		
RXA-10.13	Identifier Type Code		
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		
RXA-11.4.2	Universal ID		
RXA-11.4.3	Universal ID Type		
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		
RXA-17.2	Text		
RXA-17.3	Name of Coding System		
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		
RXA-18.2	Text		
RXA-18.3	Name of Coding System		
RXA-20	Completion Status	CP	

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	
RXA-2	Administration Sub-ID Counter	1	
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20090314	
RXA-5	Administered Code		
RXA-5.1	Identifier	48	
RXA-5.2	Text	HIB PRP-T	
RXA-5.3	Name of Coding System	CVX	
RXA-6	Administered Amount	999	
RXA-7	Administered Units		
RXA-7.1	Identifier		
RXA-7.2	Text		
RXA-7.3	Name of Coding System		
RXA-10	Administering Provider		
RXA-10.1	ID Number	5111	
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Sticker	
RXA-10.3	Given Name	Nurse	
RXA-10.4	Second and Further Given Names or Initials Thereof		
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	
RXA-10.9.2	Universal ID		
RXA-10.9.3	Universal ID Type		
RXA-10.10	Name Type Code	L	
RXA-10.13	Identifier Type Code	PRN	
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	
RXA-11.4.2	Universal ID		
RXA-11.4.3	Universal ID Type		
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		
RXA-17.2	Text		
RXA-17.3	Name of Coding System		
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		
RXA-18.2	Text		
RXA-18.3	Name of Coding System		
RXA-20	Completion Status	CP	

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	
RXA-2	Administration Sub-ID Counter	1	
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20091011	
RXA-5	Administered Code		
RXA-5.1	Identifier	110	
RXA-5.2	Text	DTAP-Hep B-IPV	
RXA-5.3	Name of Coding System	CVX	
RXA-6	Administered Amount	999	
RXA-7	Administered Units		
RXA-7.1	Identifier		
RXA-7.2	Text		
RXA-7.3	Name of Coding System		
RXA-10	Administering Provider		
RXA-10.1	ID Number		
RXA-10.2	Family Name		
RXA-10.2.1	Surname		
RXA-10.3	Given Name		
RXA-10.4	Second and Further Given Names or Initials Thereof		
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		
RXA-10.9.2	Universal ID		
RXA-10.9.3	Universal ID Type		
RXA-10.10	Name Type Code		
RXA-10.13	Identifier Type Code		
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		
RXA-11.4.2	Universal ID		
RXA-11.4.3	Universal ID Type		
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		
RXA-17.2	Text		
RXA-17.3	Name of Coding System		
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		
RXA-18.2	Text		
RXA-18.3	Name of Coding System		
RXA-20	Completion Status	CP	

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	
RXA-2	Administration Sub-ID Counter	1	
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20100411	
RXA-5	Administered Code		
RXA-5.1	Identifier	08	
RXA-5.2	Text	Hep BPEDS	
RXA-5.3	Name of Coding System	CVX	
RXA-6	Administered Amount	999	
RXA-7	Administered Units		
RXA-7.1	Identifier		
RXA-7.2	Text		
RXA-7.3	Name of Coding System		
RXA-10	Administering Provider		
RXA-10.1	ID Number	5111	
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Sticker	
RXA-10.3	Given Name	Nurse	
RXA-10.4	Second and Further Given Names or Initials Thereof		
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	
RXA-10.9.2	Universal ID		
RXA-10.9.3	Universal ID Type		
RXA-10.10	Name Type Code	L	
RXA-10.13	Identifier Type Code	PRN	
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		
RXA-11.4.2	Universal ID		
RXA-11.4.3	Universal ID Type		
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		
RXA-17.2	Text		
RXA-17.3	Name of Coding System		
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		
RXA-18.2	Text		
RXA-18.3	Name of Coding System		
RXA-20	Completion Status	CP	

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	
RXA-2	Administration Sub-ID Counter	1	
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20100415	
RXA-5	Administered Code		
RXA-5.1	Identifier	03	
RXA-5.2	Text	MMR	
RXA-5.3	Name of Coding System	CVX	
RXA-6	Administered Amount	999	
RXA-7	Administered Units		
RXA-7.1	Identifier		
RXA-7.2	Text		
RXA-7.3	Name of Coding System		
RXA-10	Administering Provider		
RXA-10.1	ID Number		
RXA-10.2	Family Name		
RXA-10.2.1	Surname		
RXA-10.3	Given Name		
RXA-10.4	Second and Further Given Names or Initials Thereof		
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		
RXA-10.9.2	Universal ID		
RXA-10.9.3	Universal ID Type		
RXA-10.10	Name Type Code		
RXA-10.13	Identifier Type Code		
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		
RXA-11.4.2	Universal ID		
RXA-11.4.3	Universal ID Type		
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		
RXA-17.2	Text		
RXA-17.3	Name of Coding System		
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		
RXA-18.2	Text		
RXA-18.3	Name of Coding System		
RXA-20	Completion Status	CP	

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	
RXA-2	Administration Sub-ID Counter	1	
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20091031	
RXA-5	Administered Code		
RXA-5.1	Identifier	998	
RXA-5.2	Text	no vaccine admin	
RXA-5.3	Name of Coding System	CVX	
RXA-6	Administered Amount	999	
RXA-7	Administered Units		
RXA-7.1	Identifier		
RXA-7.2	Text		
RXA-7.3	Name of Coding System		
RXA-10	Administering Provider		
RXA-10.1	ID Number		
RXA-10.2	Family Name		
RXA-10.2.1	Surname		
RXA-10.3	Given Name		
RXA-10.4	Second and Further Given Names or Initials Thereof		
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		
RXA-10.9.2	Universal ID		
RXA-10.9.3	Universal ID Type		
RXA-10.10	Name Type Code		
RXA-10.13	Identifier Type Code		
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		
RXA-11.4.2	Universal ID		
RXA-11.4.3	Universal ID Type		
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		
RXA-17.2	Text		
RXA-17.3	Name of Coding System		
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		
RXA-18.2	Text		
RXA-18.3	Name of Coding System		
RXA-20	Completion Status	NA	

OBX[*]

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	45	
OBX-5.2	Text	Hep B NOS	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	
OBX-2	Value Type	ID	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59781-5	
OBX-3.2	Text	dose validity	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	Y	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	17	
OBX-5.2	Text	HIB NOS	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	
OBX-2	Value Type	ID	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59781-5	
OBX-3.2	Text	dose validity	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	N	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	
OBX-2	Value Type	ST	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30982-3	
OBX-3.2	Text	Reason applied	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	Too Young	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	45	
OBX-5.2	Text	Hep B NOS	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	
OBX-2	Value Type	ID	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59781-5	
OBX-3.2	Text	dose validity	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	Y	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	2	
OBX-5	Observation Value		
OBX-5.1	Identifier	10	
OBX-5.2	Text	IPV	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	5	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	2	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	6	
OBX-2	Value Type	ID	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59781-5	
OBX-3.2	Text	dose validity	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	2	
OBX-5	Observation Value	Y	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	7	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	3	
OBX-5	Observation Value		
OBX-5.1	Identifier	20	
OBX-5.2	Text	DTAP	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	8	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	3	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	9	
OBX-2	Value Type	ID	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59781-5	
OBX-3.2	Text	dose validity	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	3	
OBX-5	Observation Value	Y	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	45	
OBX-5.2	Text	Hep B NOS	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	
OBX-2	Value Type	ID	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59781-5	
OBX-3.2	Text	dose validity	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	Y	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	03	
OBX-5.2	Text	MMR	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	
OBX-2	Value Type	ID	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59781-5	
OBX-3.2	Text	dose validity	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	Y	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	03	
OBX-5.2	Text	MMR	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	20150214	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30981-5	
OBX-3.2	Text	Earliest Date to give	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	20100614	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	5	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	2	
OBX-5	Observation Value		
OBX-5.1	Identifier	10	
OBX-5.2	Text	IPV	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	6	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	2	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	7	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	2	
OBX-5	Observation Value	20100214	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	8	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	3	
OBX-5	Observation Value		
OBX-5.1	Identifier	107	
OBX-5.2	Text	DTAP	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	9	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	3	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	10	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	3	
OBX-5	Observation Value	20100214	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151031	

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Evaluated Immunization History and Immunization Forecast	
Test Case ID	IZ-QR-1_Query_Child
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass ☐ Fail ☐
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the EHR technology's ability to display required core data elements from the information received in the Evaluated Immunization History and Immunization Forecast Z42 response message. Additional data from the message or from the EHR are permitted to be displayed by the EHR. Grayed-out fields in the Juror Document indicate where no data for the data element indicated were included in the Z42 message for the given Test Case.

The format of this Juror Document is for ease-of-use by the Tester and does not indicate how the EHR display must be designed.

The Evaluated Immunization History and Immunization Forecast data shown in this Juror Document are derived from the Z42 message provided with the given Test Case; equivalent data are permitted to be displayed by the EHR. The column headings are meant to convey the kind of data to be displayed; equivalent labels/column headings are permitted to be displayed by the EHR.

Patient Information				
Patient Identifier	Patient Name	DOB	Gender	Tester Comment
171122	Cameron A Fairchild	02/14/2009	Male	

When displayed in the EHR with the Evaluated Immunization History and Immunization Forecast, these patient demographics data may be derived from either the received immunization message or the EHR patient record. When displaying demographics from the patient record, the EHR must be able to demonstrate a linkage between the demographics in the message (primarily the patient ID in PID-3.1) and the patient record used for display to ensure that the message was associated with the appropriate patient.

Evaluated Immunization History and Immunization Forecast	
Immunization Schedule Used	Tester Comment
ACIP	

Evaluated Immunization History						
Vaccine Group	**Vaccine Administered**	**Date Administered**	**Valid Dose**	**Validity Reason**	**Completion Status***	**Tester Comment**
Hep B NOS	Hep B Unspec	04/15/2009	YES		Complete	
HIB NOS	HIB PRP-T	03/14/2009	NO	Too Young	Complete	
Hep B NOS	DTAP-Hep B-IPV	10/11/2009	YES		Complete	
IPV	DTAP-Hep B-IPV	10/11/2009	YES		Complete	
DTAP	DTAP-Hep B-IPV	10/11/2009	YES		Complete	
Hep B NOS	Hep BPEDS	04/11/2010	YES		Complete	
MMR	MMR	04/15/2010	YES		Complete	

* "Completion Status" refers to the status of the dose of vaccine administered on the indicated date and may be interpreted as "Dose Status". A status of "Complete" means that the vaccine dose was "completely administered" as opposed to "partially administered".

Immunization Forecast				
Vaccine Group	**Due Date**	**Earliest Date To Give**	**Latest Date to Give**	**Tester Comment**
MMR	02/14/2015	06/14/2010		
IPV	02/14/2010			
DTAP	02/14/2010			

2.2. IZ-QR-2_Query_Adult

Query for an adult using the most significant query parameters. The patient is found in the IIS. A response message is returned with a signal immunization event and multiple immunization recomendations.

Test Story

Description
Query for an adult using the most significant query parameters. The patient is found in the IIS. A response message is returned with a single immunization event and multiple immunization recommendations. An adult male patient, Clement S. Stanley presents to the clinic, seeking an immunization for influenza. A clinic staff member locates his medical record in the electronic health record system. The staff member sees that he has previously had an immunization against influenza. The staff member triggers a request to the IIS to request an evaluated history and forecast for the patient. The IIS performs a search for Stanley S. Clement and finds one high confidence match. The IIS generates an evaluated history and forecast for Mr. Clement and returns this to the EHR-S. The EHR-S displays the evaluated history and forecast to the staff member.

Comments
No Comments

Pre-condition
Person exists in the system with the complete demographics as provided in the Test Data Specification. Person has Medical Record Number (MR). Person does not have existing immunization events in their EHR. Person does have an immunization history in the IIS,

Post-Condition
The clinician is able to view the evaluated history and forecast from the IIS. There is no obligation to incorporate the data into the EHR-S or maintain the displayed evaluated history and forecast.

Test Objectives
Evaluates EHR-S ability to create a well formed query for an adult. Evaluates EHR-S ability to accept a response with evaluated history and forecast for that person.

Evaluation Criteria
1. Tester inspects patient record; confirms that the patients does not have existing immunization events. 2. Confirms valid query message using Message Validation Report. 3. Confirms valid receipt and display of response message using the Juror Document.

Notes
The NIST tool is simulating a response from the IIS.   **Important note regarding the Query Tag (QPD-2):** The NIST response message is predefined and is based on the query message. Most systems will automatically create the query tag (Identifier) and will require it for importing, linking, and processing the response message. The NIST test message can be modified such that the query tag matches that query tag generated by the system-under test.

2.2.1. IZ-QR-2.1_Query_Q11_Z44

Test Step Type: SUT_INITIATOR
This query should return a response for an adult where an evaluated history and forecast are found

Test Story

Description
An adult male patient, Clement S. Stanley presents to the clinic, seeking an immunization for influenza. A clinic staff member locates his medical record in the electronic health record system. The staff member sees that he has previously had an immunization against influenza. The staff member triggers a request to the IIS to request an evaluated history and forecast for the patient.

Comments
Most of the test data is categorized as Test Case Fixed. It is important that the data is entered into the querying system as specified to enable linking the response message to the patient record.

Pre-condition
Person exists in the querying system with the complete demographics as provided in the Test Data Specification.
Person has Medical Record Number (MR).
Person does not have existing immunization events in their EHR.
Person does have an immunization history in the IIS (simulated by the NIST Test Tool).

Post-Condition
IIS returns a response message for the person containing a single immunization event and multiple recommendations.

Test Objectives
Test the ability of the system to successfully create a query message based on the given test data.

Evaluation Criteria
Tester inspects patient record; confirms that the patients does not have existing immunization events.
Confirms valid query message using Message Validation Report.

Notes
If the HIT Module being tested is unable to control the Patient ID Number value that it creates (1) QPD-3.1 in the Query message can be populated with a different value than the one provided in the test data; (2) the Tester can ignore the associated error notification generated by the Tool; and (3) the Response message also must be modified accordingly.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NISTEHRAPP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NISTEHRFAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NISTIISAPP	Presence-Configuration
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NISTIISFAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20141031145233-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	QBP	Value-Profile Fixed
MSH-9.2	Trigger Event	Q11	Value-Profile Fixed
MSH-9.3	Message Structure	QBP_Q11	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-QR-2.1_Query_Q11_Z44	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z44	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NISTEHRFAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-1	Presence-Configuration
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-22.10	Organization Identifier	100-6482	Presence-Configuration
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NISTIISFAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-1	Presence-Configuration
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-23.10	Organization Identifier	100-3322	Presence-Configuration

QPD : Query Parameter Definition

Location	Data Element	Data	Categorization
QPD-1	Message Query Name		
QPD-1.1	Identifier	Z44	Value-Profile Fixed
QPD-1.2	Text	Request Evaluated History and Forecast	Value-Profile Fixed
QPD-1.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
QPD-2	Query Tag	IZ-2.1-2015	Presence-System Generated
QPD-3	PatientList		
QPD-3.1	ID Number	648286	Value-Test Case Fixed
QPD-3.4	Assigning Authority		
QPD-3.4.1	Namespace ID	NIST-MPI-1	Value-Test Case Fixed
QPD-3.4.2	Universal ID		Indifferent
QPD-3.4.3	Universal ID Type		Indifferent
QPD-3.5	Identifier Type Code	MR	Value-Test Case Fixed
QPD-4	PatientName		
QPD-4.1	Family Name		
QPD-4.1.1	Surname	Stanley	Value-Test Case Fixed
QPD-4.2	Given Name	Clement	Value-Test Case Fixed
QPD-4.3	Second and Further Given Names or Initials Thereof	S	Value-Test Case Fixed
QPD-4.7	Name Type Code	L	Value-Test Case Fixed
QPD-5	PatientMotherMaidenName		
QPD-5.1	Family Name		
QPD-5.1.1	Surname	Bell	Value-Test Case Fixed
QPD-5.7	Name Type Code	M	Value-Profile Fixed
QPD-6	PatientDateOfBirth		
QPD-6.1	Time	19500214	Value-Test Case Fixed
QPD-7	Patient Sex	M	Value-Test Case Fixed
QPD-8	Patient Address		
QPD-8.1	Street Address		
QPD-8.1.1	Street or Mailing Address	1642 Bear Run	Value-Test Case Fixed
QPD-8.2	Other Designation		Indifferent
QPD-8.3	City	Bozeman	Value-Test Case Fixed
QPD-8.4	State or Province	MT	Value-Test Case Fixed
QPD-8.5	Zip or Postal Code	59715	Value-Test Case Fixed
QPD-8.6	Country	USA	Value-Test Case Fixed
QPD-8.7	Address Type	P	Value-Test Case Fixed List
QPD-9	Phone		
QPD-9.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
QPD-9.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
QPD-9.4	Email Address		
QPD-9.6	Area/City Code	406	Value-Test Case Fixed
QPD-9.7	Local Number	5552020	Value-Test Case Fixed
QPD-10	Multiple birth indicator		Indifferent
QPD-11	Birth order		Indifferent

RCP : Response Control Parameter

Location	Data Element	Data	Categorization
RCP-1	Query Priority	I	Value-Test Case Fixed
RCP-2	Quantity Limited Request		
RCP-2.1	Quantity	1	Value-Profile Fixed
RCP-2.2	Units		
RCP-2.2.1	Identifier	RD	Value-Profile Fixed
RCP-2.2.2	Text	Records	Presence-Test Case Proper
RCP-2.2.3	Name of Coding System	HL70126	Value-Profile Fixed

Test Data Specification

Patient Information

Element	Data
Patient Name	Clement S Stanley
Mother's Maiden Name	Bell
ID Number	648286
Date/Time of Birth	02/14/1950
Sex	Male
Patient Address	1642 Bear Run Bozeman MT 59715 USA
Patient Phone	(406)555-2020
Birth Indicator	No
Birth Order	

Element	Data
Patient Name	Clement S Stanley
Mother's Maiden Name	Bell
ID Number	648286
Date/Time of Birth	02/14/1950
Sex	Male

2.2.2. IZ-QR-2.2_Response_K11_Z42

Test Step Type: TA_RESPONDER
Return response to query for an adult with an evaluated history and forecast

Test Story

Description
The IIS performs a search for Clement S. Stanley and finds one high confidence match. The IIS generates an evaluated history and forecast for Mr. Clement and returns this to the EHR-S. The EHR-S displays the evaluated history and forecast to the staff member.

Comments
No Comments

Pre-condition
A query is performed by the sending system. The IIS (simulated by the NIST test tool) contains an immunization events for the person.

Post-Condition
The response is made available to the EHR-S for processing. The clinician is able to view the evaluated history and forecast from the IIS (even if temporal).

Test Objectives
Demonstrate the capability to receive a response message containing the evaluated history and forecast; display evaluated history and forecast.

Evaluation Criteria
Confirms valid receipt and display of response message using the Juror Document.

Notes
Important note regarding the Query Tag (QPD-2): The NIST response message is predefined and is based on the query message. Most systems will automatically create the query tag (Identifier) and will require it for importing, linking, and processing the response message. The NIST test message can be modified such that the query tag matches that query tag generated by the system-under test.   **Important note regarding the MSH-10 and MSA-2:** The NIST response message is predefined and is based on the query message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the response message. The NIST response test message can be modified such that MSA-2 matches MSH-10 of the query message generated by the system-under test

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IIS APP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IIS FAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHR APP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHR FAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20141031145233-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	RSP	
MSH-9.2	Trigger Event	K11	
MSH-9.3	Message Structure	RSP_K11	
MSH-10	Message Control ID	NIST-IZ-QR-2.2_Response_K11_Z42	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z42	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IIS FAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-1	
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code	XX	
MSH-22.10	Organization Identifier	100-3322	
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHR FAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-1	
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code	XX	
MSH-23.10	Organization Identifier	100-6482	

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AA	
MSA-2	Message Control ID	NIST-IZ-QR-2.1_Query_Q11_Z44	

QAK : Query Acknowledgment

Location	Data Element	Data	Categorization
QAK-1	Query Tag	IZ-2.1-2015	
QAK-2	Query Response Status	OK	
QAK-3	Message Query Name		
QAK-3.1	Identifier	Z44	
QAK-3.2	Text	Request Evaluated History and Forecast	
QAK-3.3	Name of Coding System	CDCPHINVS	

QPD : Query Parameter Definition

Location	Data Element	Data	Categorization
QPD-1	Message Query Name		
QPD-1.1	Identifier	Z44	
QPD-1.2	Text	Request Evaluated History and Forecast	
QPD-1.3	Name of Coding System	CDCPHINVS	
QPD-2	Query Tag	IZ-2.1-2015	
QPD-3	PatientList		
QPD-3.1	ID Number	648286	
QPD-3.4	Assigning Authority		
QPD-3.4.1	Namespace ID	NIST-MPI-1	
QPD-3.4.2	Universal ID		
QPD-3.4.3	Universal ID Type		
QPD-3.5	Identifier Type Code	MR	
QPD-4	PatientName		
QPD-4.1	Family Name		
QPD-4.1.1	Surname	Stanley	
QPD-4.2	Given Name	Clement	
QPD-4.3	Second and Further Given Names or Initials Thereof	S	
QPD-4.7	Name Type Code	L	
QPD-5	PatientMotherMaidenName		
QPD-5.1	Family Name		
QPD-5.1.1	Surname	Bell	
QPD-5.7	Name Type Code	M	
QPD-6	PatientDateOfBirth		
QPD-6.1	Time	19500214	
QPD-7	Patient Sex	M	
QPD-8	Patient Address		
QPD-8.1	Street Address		
QPD-8.1.1	Street or Mailing Address	1642 Bear Run	
QPD-8.2	Other Designation		
QPD-8.3	City	Bozeman	
QPD-8.4	State or Province	MT	
QPD-8.5	Zip or Postal Code	59715	
QPD-8.6	Country	USA	
QPD-8.7	Address Type	P	
QPD-9	Phone		
QPD-9.2	Telecommunication Use Code	PRN	
QPD-9.3	Telecommunication Equipment Type	PH	
QPD-9.4	Email Address		
QPD-9.6	Area/City Code	406	
QPD-9.7	Local Number	5552020	
QPD-10	Multiple birth indicator		
QPD-11	Birth order		

PID : Patient Identification

Location	Data Element	Data	Categorization
PID-1	Set ID - PID	1	
PID-3[1]	Patient Identifier List		
PID-3[1].1	ID Number	648286	
PID-3[1].4	Assigning Authority		
PID-3[1].4.1	Namespace ID	NIST-MPI-1	
PID-3[1].4.2	Universal ID		
PID-3[1].4.3	Universal ID Type		
PID-3[1].5	Identifier Type Code	MR	
PID-3[2]	Patient Identifier List		
PID-3[2].1	ID Number	34500907	
PID-3[2].4	Assigning Authority		
PID-3[2].4.1	Namespace ID	NIST-IIS-MPI	
PID-3[2].4.2	Universal ID		
PID-3[2].4.3	Universal ID Type		
PID-3[2].5	Identifier Type Code	SR	
PID-5	Patient Name		
PID-5.1	Family Name		
PID-5.1.1	Surname	Stanley	
PID-5.2	Given Name	Clement	
PID-5.3	Second and Further Given Names or Initials Thereof	S	
PID-5.7	Name Type Code	L	
PID-7	Date/Time of Birth		
PID-7.1	Time	19500214	
PID-8	Administrative Sex	M	
PID-11	Patient Address		
PID-11.1	Street Address		
PID-11.1.1	Street or Mailing Address	1642 Bear Run	
PID-11.2	Other Designation		
PID-11.3	City	Bozeman	
PID-11.4	State or Province	MT	
PID-11.5	Zip or Postal Code	59715	
PID-11.6	Country	USA	
PID-11.7	Address Type	P	
PID-30	Patient Death Indicator		

ORC[*]

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		
ORC-2.2	Namespace ID		
ORC-2.3	Universal ID		
ORC-2.4	Universal ID Type		
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	193337027	
ORC-3.2	Namespace ID	NIST-AA-IZ-2	
ORC-3.3	Universal ID		
ORC-3.4	Universal ID Type		
ORC-17	Entering Organization		
ORC-17.1	Identifier		
ORC-17.2	Text		
ORC-17.3	Name of Coding System		

ORC : Common Order

Location	Data Element	Data	Categorization
ORC-1	Order Control	RE	
ORC-2	Placer Order Number		
ORC-2.1	Entity Identifier		
ORC-2.2	Namespace ID		
ORC-2.3	Universal ID		
ORC-2.4	Universal ID Type		
ORC-3	Filler Order Number		
ORC-3.1	Entity Identifier	9999	
ORC-3.2	Namespace ID	NIST-AA-IZ-2	
ORC-3.3	Universal ID		
ORC-3.4	Universal ID Type		
ORC-17	Entering Organization		
ORC-17.1	Identifier	NIST EHRFAC	
ORC-17.2	Text	NIST EHRFacility	
ORC-17.3	Name of Coding System	HL70362	

RXA[*]

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	
RXA-2	Administration Sub-ID Counter	1	
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20151029	
RXA-5	Administered Code		
RXA-5.1	Identifier	140	
RXA-5.2	Text	seasonal flu	
RXA-5.3	Name of Coding System	CVX	
RXA-6	Administered Amount	0.5	
RXA-7	Administered Units		
RXA-7.1	Identifier	mL	
RXA-7.2	Text		
RXA-7.3	Name of Coding System	UCUM	
RXA-10	Administering Provider		
RXA-10.1	ID Number	5111	
RXA-10.2	Family Name		
RXA-10.2.1	Surname	Sticker	
RXA-10.3	Given Name	Nurse	
RXA-10.4	Second and Further Given Names or Initials Thereof		
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID	NIST-PI-1	
RXA-10.9.2	Universal ID		
RXA-10.9.3	Universal ID Type		
RXA-10.10	Name Type Code	L	
RXA-10.13	Identifier Type Code	PRN	
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID	NIST-Clinic-1	
RXA-11.4.2	Universal ID		
RXA-11.4.3	Universal ID Type		
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier	CSL	
RXA-17.2	Text	bioCSL	
RXA-17.3	Name of Coding System	MVX	
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		
RXA-18.2	Text		
RXA-18.3	Name of Coding System		
RXA-20	Completion Status	CP	

RXA : Pharmacy/Treatment Administration

Location	Data Element	Data	Categorization
RXA-1	Give Sub-ID Counter	0	
RXA-2	Administration Sub-ID Counter	1	
RXA-3	Date/Time Start of Administration		
RXA-3.1	Time	20151029	
RXA-5	Administered Code		
RXA-5.1	Identifier	998	
RXA-5.2	Text	no vaccine admin	
RXA-5.3	Name of Coding System	CVX	
RXA-6	Administered Amount	999	
RXA-7	Administered Units		
RXA-7.1	Identifier		
RXA-7.2	Text		
RXA-7.3	Name of Coding System		
RXA-10	Administering Provider		
RXA-10.1	ID Number		
RXA-10.2	Family Name		
RXA-10.2.1	Surname		
RXA-10.3	Given Name		
RXA-10.4	Second and Further Given Names or Initials Thereof		
RXA-10.9	Assigning Authority		
RXA-10.9.1	Namespace ID		
RXA-10.9.2	Universal ID		
RXA-10.9.3	Universal ID Type		
RXA-10.10	Name Type Code		
RXA-10.13	Identifier Type Code		
RXA-11	Administered-at Location		
RXA-11.4	Facility		
RXA-11.4.1	Namespace ID		
RXA-11.4.2	Universal ID		
RXA-11.4.3	Universal ID Type		
RXA-17	Substance Manufacturer Name		
RXA-17.1	Identifier		
RXA-17.2	Text		
RXA-17.3	Name of Coding System		
RXA-18	Substance/Treatment Refusal Reason		
RXA-18.1	Identifier		
RXA-18.2	Text		
RXA-18.3	Name of Coding System		
RXA-20	Completion Status	NA	

RXR : Pharmacy/Treatment Route

Location	Data Element	Data	Categorization
RXR-1	Route		
RXR-1.1	Identifier	C28161	
RXR-1.2	Text	IM	
RXR-1.3	Name of Coding System	NCIT	
RXR-2	Administration Site		
RXR-2.1	Identifier		
RXR-2.2	Text		
RXR-2.3	Name of Coding System		

OBX[*]

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	1	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	88	
OBX-5.2	Text	influenza NOS	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	2	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151029	

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	3	
OBX-2	Value Type	ID	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59781-5	
OBX-3.2	Text	dose validity	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	Y	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time	20151029	

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	4	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	152	
OBX-5.2	Text	pcv NOS	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	5	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	6	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	20600101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	7	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30981-5	
OBX-3.2	Text	Earliest Date to give	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	1	
OBX-5	Observation Value	20600101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	8	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	2	
OBX-5	Observation Value		
OBX-5.1	Identifier	88	
OBX-5.2	Text	influenza NOS	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	9	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	2	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	10	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	2	
OBX-5	Observation Value	20160901	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	11	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30981-5	
OBX-3.2	Text	Earliest Date to give	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	2	
OBX-5	Observation Value	20160901	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	12	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	3	
OBX-5	Observation Value		
OBX-5.1	Identifier	03	
OBX-5.2	Text	MMR	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	13	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	3	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	14	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	3	
OBX-5	Observation Value	19960101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	15	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30981-5	
OBX-3.2	Text	Earliest Date to give	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	3	
OBX-5	Observation Value	19960101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	16	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	4	
OBX-5	Observation Value		
OBX-5.1	Identifier	85	
OBX-5.2	Text	Hep A	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	17	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	4	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	18	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	4	
OBX-5	Observation Value	19960101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	19	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30981-5	
OBX-3.2	Text	Earliest Date to give	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	4	
OBX-5	Observation Value	19960101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	20	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	5	
OBX-5	Observation Value		
OBX-5.1	Identifier	45	
OBX-5.2	Text	Hep B	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	21	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	5	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	22	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	5	
OBX-5	Observation Value	19950101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	23	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30981-5	
OBX-3.2	Text	Earliest Date to give	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	5	
OBX-5	Observation Value	19950101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	24	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	6	
OBX-5	Observation Value		
OBX-5.1	Identifier	108	
OBX-5.2	Text	MCV	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	25	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	6	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	26	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	6	
OBX-5	Observation Value	20110101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX : Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	27	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30981-5	
OBX-3.2	Text	Earliest Date to give	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	6	
OBX-5	Observation Value	20110101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	28	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	7	
OBX-5	Observation Value		
OBX-5.1	Identifier	21	
OBX-5.2	Text	varicella	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	29	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	7	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	30	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	7	
OBX-5	Observation Value	19960101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	31	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30981-5	
OBX-3.2	Text	Earliest Date to give	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	7	
OBX-5	Observation Value	19960101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	32	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30956-7	
OBX-3.2	Text	vaccine type	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	8	
OBX-5	Observation Value		
OBX-5.1	Identifier	115	
OBX-5.2	Text	TDAP	
OBX-5.3	Name of Coding System	CVX	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	33	
OBX-2	Value Type	CE	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	59779-9	
OBX-3.2	Text	Immunization Schedule used	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	8	
OBX-5	Observation Value		
OBX-5.1	Identifier	VXC16	
OBX-5.2	Text	ACIP	
OBX-5.3	Name of Coding System	CDCPHINVS	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	34	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30980-7	
OBX-3.2	Text	Date vaccination due	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	8	
OBX-5	Observation Value	20020101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

OBX: Observation/Result

Location	Data Element	Data	Categorization
OBX-1	Set ID - OBX	35	
OBX-2	Value Type	DT	
OBX-3	Observation Identifier		
OBX-3.1	Identifier	30981-5	
OBX-3.2	Text	Earliest Date to give	
OBX-3.3	Name of Coding System	LN	
OBX-4	Observation Sub-ID	8	
OBX-5	Observation Value	20020101	
OBX-6	Units		
OBX-6.1	Identifier		
OBX-6.2	Text		
OBX-6.3	Name of Coding System		
OBX-11	Observation Result Status	F	
OBX-14	Date/Time of the Observation		
OBX-14.1	Time		

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Evaluated Immunization History and Immunization Forecast		
Test Case ID	IZ-QR-2_Query_Adult	
Juror ID		
Juror Name		
HIT System Tested		
Inspection Date/Time		
Inspection Settlement (Pass/Fail)	Pass	Fail
Reason Failed		
Juror Comments		

DISPLAY VERIFICATION

Patient Information

Patient Identifier	Patient Name	DOB	Gender	Tester Comment
648286	Clement S Stanley	02/14/1950	Male	

When displayed in the EHR with the Evaluated Immunization History and Immunization Forecast, these patient demographics data may be derived from either the received immunization message or the EHR patient record. When displaying demographics from the patient record, the EHR must be able to demonstrate a linkage between the demographics in the message (primarily the patient ID in PID-3.1) and the patient record used for display to ensure that the message was associated with the appropriate patient.

Evaluated Immunization History and Immunization Forecast

Immunization Schedule Used	Tester Comment
ACIP	

Evaluated Immunization History

Vaccine Group	Vaccine Administered	Date Administered	Valid Dose	Validity Reason	Completion Status*	Tester Comment
influenza NOS	seasonal flu	10/29/2015	YES		Complete	

* "Completion Status" refers to the status of the dose of vaccine administered on the indicated date and may be interpreted as "Dose Status". A status of "Complete" means that the vaccine dose was "completely administered" as opposed to "partially administered".

Immunization Forecast

Vaccine Group	Due Date	Earliest Date To Give	Latest Date to Give	Tester Comment
pcv NOS	01/01/2060	01/01/2060		
influenza NOS	09/01/2016	09/01/2016		
MMR	01/01/1996	01/01/1996		
Hep A	01/01/1996	01/01/1996		
Hep B	01/01/1995	01/01/1995		
MCV	01/01/2011	01/01/2011		
varicella	01/01/1996	01/01/1996		
TDAP	01/01/2002	01/01/2002		

2.3. IZ-QR-3_Query_No_Patients

Tests ability to send a query and receive a response where no patients are found.

Test Story

Description
A female toddler, Donna Victoria Bee, is brought to the local clinic to determine what immunizations have been given and what immunizations are needed. A clinic staff member collects basic patient demographic information including name, date of birth, sex, and birth order (Donna was born 3rd in a triplet). A clinic provider uses this information to locate the patient's medical record. The staff member then uses the medical record and system capabilities to query the IIS to request an evaluated history and forecast for the patient. The IIS performs a search for Donna Victoria Bee and does not find a high-confidence match. The IIS returns a response message indicating no person found to the querying system. It is expected that the requesting system (e.g., EHR-S) process the response message and display some indication to the end user that no matches were found.

Comments
No Comments

Pre-condition
Person exists in the system with the complete demographics as provided in the Test Data Specification. Person has Medical Record Number (MR). Person does not have a record in the IIS, even though complete demographics are used in the query.

Post-Condition
The clinician is provided some indication that no matches were found.

Test Objectives
Tests for a maximally valued query message, including use of OIDs, mother's maiden name, fully valued address, birth indicator and birth order. Test the capability of the EHR-S to process a response message that returns no persons found and to provide an indication to the end user.

Evaluation Criteria
Query Message: Message Validation Report Response Message: Juror Document. The EHR-S receives the response and alerts the clinician that no matches were found.

Notes
The NIST tool is simulating a response from the IIS. **Important note regarding the Query Tag (QPD-2):** The NIST response message is predefined and is based on the query message. Most systems will automatically create the query tag (Identifier) and will require it for importing, linking, and processing the response message. The NIST test message can be modified such that the query tag matches that query tag generated by the system-under test.

2.3.1. IZ-QR-3.1_Query_Q11_Z44

Test Step Type: SUT_INITIATOR
This query should return a response where no matches are found.

Test Story

Description
A female toddler, Donna Victoria Bee, is brought to the local clinic to determine what immunizations have been given and what immunizations are needed. A clinic staff member collects basic patient demographic information including name, date of birth, sex, and birth order (Donna was born 3rd in a triplet). A clinic provider uses this information to locate the patient's medical record. The staff member then uses the medical record and system capabilities to query the IIS to request an evaluated history and forecast for the patient.

Comments
Most of the test data is categorized as Test Case Fixed. It is important that the data is entered into the querying system as specified to enable linking the response message to the patient record.
The sending (querying) system will need to accept a response indicating that no matches were found.

Pre-condition
Person exists in the system with the complete demographics as provided in the Test Data Specification.
Person has Medical Record Number (MR).
Person does not have a record in the IIS, even though complete demographics are used in the query.

Post-Condition
A response message is returned in which no person record is found.

Test Objectives
Tests for a maximally valued query message, including use of OIDs, mother's maiden name, fully valued address, birth indicator and birth order.

Evaluation Criteria
Message Validation Report

Notes
If the HIT Module being tested is unable to control the Patient ID Number value that it creates (1) QPD-3.1 in the Query message can be populated with a different value than the one provided in the test data; (2) the Tester can ignore the associated error notification generated by the Tool; and (3) the Response message also must be modified accordingly.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST EHRAPP	Presence-Configuration
MSH-3.2	Universal ID	2.16.840.1.113883.3.72.5.40.1	Indifferent
MSH-3.3	Universal ID Type	ISO	Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST EHRFAC	Presence-Configuration
MSH-4.2	Universal ID	2.16.840.1.113883.3.72.5.40.2	Indifferent
MSH-4.3	Universal ID Type	ISO	Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST IISAPP	Presence-Configuration
MSH-5.2	Universal ID	2.16.840.1.113883.3.72.5.40.3	Indifferent
MSH-5.3	Universal ID Type	ISO	Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST IISFAC	Presence-Configuration
MSH-6.2	Universal ID	2.16.840.1.113883.3.72.5.40.4	Indifferent
MSH-6.3	Universal ID Type	ISO	Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150531145156-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	QBP	Value-Profile Fixed
MSH-9.2	Trigger Event	Q11	Value-Profile Fixed
MSH-9.3	Message Structure	QBP_Q11	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-QR-3.1_Query_Q11_Z44	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z44	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST EHRFAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-IZ-1	Presence-Configuration
MSH-22.6.2	Universal ID	2.16.840.1.113883.3.72.5.40.9	Indifferent
MSH-22.6.3	Universal ID Type	ISO	Indifferent
MSH-22.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-22.10	Organization Identifier	100-6482	Presence-Configuration
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST IISFAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-IZ-1	Presence-Configuration
MSH-23.6.2	Universal ID	2.16.840.1.113883.3.72.5.40.9	Indifferent
MSH-23.6.3	Universal ID Type	ISO	Indifferent
MSH-23.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-23.10	Organization Identifier	100-3322	Presence-Configuration

Location	Data Element	Data	Categorization
QPD-1	Message Query Name		
QPD-1.1	Identifier	Z44	Value-Profile Fixed
QPD-1.2	Text	Request Evaluated History and Forecast	Value-Profile Fixed
QPD-1.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
QPD-2	Query Tag	IZ-3.1-2015	Presence-System Generated
QPD-3	PatientList		
QPD-3.1	ID Number	177993	Value-Test Case Fixed
QPD-3.4	Assigning Authority		
QPD-3.4.1	Namespace ID	NIST-MPI-1	Value-Test Case Fixed
QPD-3.4.2	Universal ID	2.16.840.1.113883.3.72.5.40.5	Indifferent
QPD-3.4.3	Universal ID Type	ISO	Indifferent
QPD-3.5	Identifier Type Code	MR	Value-Test Case Fixed
QPD-4	PatientName		
QPD-4.1	Family Name		
QPD-4.1.1	Surname	Bee	Value-Test Case Fixed
QPD-4.2	Given Name	Donna	Value-Test Case Fixed
QPD-4.3	Second and Further Given Names or Initials Thereof	Victoria	Value-Test Case Fixed
QPD-4.7	Name Type Code	L	Value-Test Case Fixed
QPD-5	PatientMotherMaidenName		
QPD-5.1	Family Name		
QPD-5.1.1	Surname	Goluchio	Value-Test Case Fixed
QPD-5.7	Name Type Code	M	Value-Profile Fixed
QPD-6	PatientDateOfBirth		
QPD-6.1	Time	20120507	Value-Test Case Fixed
QPD-7	Patient Sex	F	Value-Test Case Fixed
QPD-8	Patient Address		
QPD-8.1	Street Address		
QPD-8.1.1	Street or Mailing Address	737 Everygreen Road	Value-Test Case Fixed
QPD-8.2	Other Designation	Suite 511	Indifferent
QPD-8.3	City	Livingston	Value-Test Case Fixed
QPD-8.4	State or Province	MT	Value-Test Case Fixed
QPD-8.5	Zip or Postal Code	59047	Value-Test Case Fixed
QPD-8.6	Country	USA	Value-Test Case Fixed
QPD-8.7	Address Type	P	Value-Test Case Fixed List
QPD-9	Phone		
QPD-9.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
QPD-9.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
QPD-9.4	Email Address		
QPD-9.6	Area/City Code	406	Value-Test Case Fixed
QPD-9.7	Local Number	5553758	Value-Test Case Fixed
QPD-10	Multiple birth indicator	Y	Value-Test Case Fixed
QPD-11	Birth order	3	Value-Test Case Fixed

Location	Data Element	Data	Categorization
RCP-1	Query Priority	I	Value-Test Case Fixed
RCP-2	Quantity Limited Request		
RCP-2.1	Quantity	1	Value-Profile Fixed
RCP-2.2	Units		
RCP-2.2.1	Identifier	RD	Value-Profile Fixed
RCP-2.2.2	Text	Records	Presence-Test Case Proper
RCP-2.2.3	Name of Coding System	HL70126	Value-Profile Fixed

Test Data Specification

Patient Information

Element	Data
Patient Name	Donna Victoria Bee
Mother's Maiden Name	Goluchio
ID Number	177993
Date/Time of Birth	05/07/2012
Sex	Female
Patient Address	737 Everygreen Road Livingston MT 59047 USA
Patient Phone	(406)555-3758
Birth Indicator	Yes
Birth Order	3

2.3.2. IZ-QR-3.2_Response_NF_K11_Z33

Test Step Type: TA_RESPONDER
Response with no matches found

Test Story

Description
The IIS performs a search for Donna Victoria Bee and does not find a high-confidence match. The IIS returns a response message indicating no person found to the querying system.

Comments
No Comments

Pre-condition
The patient Donna Victoria Bee exists in the querying system (e.g., EHR-S) and a query was performed. The IIS (simulated by the NIST test tool) does not find a match for the person.

Post-Condition
The response message is processed and the clinician is alerted to fact of no matches.

Test Objectives
Test the capability of the EHR-S to process a response message that returns no persons found and to provide an indication to the end user.

Evaluation Criteria
Juror Document. Clinician is notified of no match.

Notes
Important note regarding the Query Tag (QPD-2): The NIST response message is predefined and is based on the query message. Most systems will automatically create the query tag (Identifier) and will require it for importing, linking, and processing the response message. The NIST test message can be modified such that the query tag matches that query tag generated by the system-under test.   **Important note regarding the MSH-10 and MSA-2:** The NIST response message is predefined and is based on the query message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the response message. The NIST response test message can be modified such that MSA-2 matches MSH-10 of the query message generated by the system-under test

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IIS APP	
MSH-3.2	Universal ID	2.16.840.1.113883.3.72.5.40.3	
MSH-3.3	Universal ID Type	ISO	
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IIS FAC	
MSH-4.2	Universal ID	2.16.840.1.113883.3.72.5.40.4	
MSH-4.3	Universal ID Type	ISO	
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHR APP	
MSH-5.2	Universal ID	2.16.840.1.113883.3.72.5.40.1	
MSH-5.3	Universal ID Type	ISO	
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHR FAC	
MSH-6.2	Universal ID	2.16.840.1.113883.3.72.5.40.2	
MSH-6.3	Universal ID Type	ISO	
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20151031145233-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	RSP	
MSH-9.2	Trigger Event	K11	
MSH-9.3	Message Structure	RSP_K11	
MSH-10	Message Control ID	NIST-IZ-QR-3.2_Response_NF_K11_Z33	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z33	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IIS FAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-IZ-1	
MSH-22.6.2	Universal ID	2.16.840.1.113883.3.72.5.40.9	
MSH-22.6.3	Universal ID Type	ISO	
MSH-22.7	Identifier Type Code	XX	
MSH-22.10	Organization Identifier	100-3322	
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHR FAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-IZ-1	
MSH-23.6.2	Universal ID	2.16.840.1.113883.3.72.5.40.9	
MSH-23.6.3	Universal ID Type	ISO	
MSH-23.7	Identifier Type Code	XX	
MSH-23.10	Organization Identifier	100-6482	

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AA	
MSA-2	Message Control ID	NIST-IZ-QR-3.1_Query_Q11_Z44	

QAK : Query Acknowledgment

Location	Data Element	Data	Categorization
QAK-1	Query Tag	IZ-3.1-2015	
QAK-2	Query Response Status	NF	
QAK-3	Message Query Name		
QAK-3.1	Identifier	Z44	
QAK-3.2	Text	Request Evaluated History and Forecast	
QAK-3.3	Name of Coding System	CDCPHINVS	

QPD : Query Parameter Definition

Location	Data Element	Data	Categorization
QPD-1	Message Query Name		
QPD-1.1	Identifier	Z44	
QPD-1.2	Text	Request Evaluated History and Forecast	
QPD-1.3	Name of Coding System	CDCPHINVS	
QPD-2	Query Tag	IZ-3.1-2015	
QPD-3	PatientList		
QPD-3.1	ID Number	177993	
QPD-3.4	Assigning Authority		
QPD-3.4.1	Namespace ID	NIST-MPI-1	
QPD-3.4.2	Universal ID	2.16.840.1.113883.3.72.5.40.5	
QPD-3.4.3	Universal ID Type	ISO	
QPD-3.5	Identifier Type Code	MR	
QPD-4	PatientName		
QPD-4.1	Family Name		
QPD-4.1.1	Surname	Bee	
QPD-4.2	Given Name	Donna	
QPD-4.3	Second and Further Given Names or Initials Thereof	Victoria	
QPD-4.7	Name Type Code	L	
QPD-5	PatientMotherMaidenName		
QPD-5.1	Family Name		
QPD-5.1.1	Surname	Goluchio	
QPD-5.7	Name Type Code	M	
QPD-6	PatientDateOfBirth		
QPD-6.1	Time	20120507	
QPD-7	Patient Sex	F	
QPD-8	Patient Address		
QPD-8.1	Street Address		
QPD-8.1.1	Street or Mailing Address	737 Everygreen Road	
QPD-8.2	Other Designation	Suite 511	
QPD-8.3	City	Livingston	
QPD-8.4	State or Province	MT	
QPD-8.5	Zip or Postal Code	59047	
QPD-8.6	Country	USA	
QPD-8.7	Address Type	P	
QPD-9	Phone		
QPD-9.2	Telecommunication Use Code	PRN	
QPD-9.3	Telecommunication Equipment Type	PH	
QPD-9.4	Email Address		
QPD-9.6	Area/City Code	406	
QPD-9.7	Local Number	5553758	
QPD-10	Multiple birth indicator	Y	
QPD-11	Birth order	3	

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Evaluated Immunization History and Immunization Forecast	
Test Case ID	IZ-QR-3_Query_No_Patients
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass ☐ Fail ☐
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the EHR technology's ability to display information notifying the HIT user that a Return Acknowledgement with No Person Records Z33 message was received (in response to an Evaluated Immunization History and Immunization Forecast Z44 query message). Additional data from the message or from the EHR are petermitted to be displayed by the EHR.

The format of this Juror Document is for ease-of-use by the Tester and does not indicate how the EHR display must be designed.

The data shown in this Juror Document are derived from the test data provided with the given Test Case; equivalent data are permitted to be displayed by the EHR. The column headings are meant to convey the kind of data to be displayed; equivalent labels/column headings are permitted to be displayed by the EHR.

Patient Information				
Patient Identifier	Patient Name	DOB	Gender	Tester Comment
177993	Donna Victoria Bee	05/07/2012	Female	
When displayed in the EHR with the notification indicating that a Return Acknowledgement with No Person Records Z33 message was received, these patient demographics data are derived from the EHR patient record.				

Evaluated Immunization History and Immunization Forecast
The EHR shall display a notification indicating that the query for an Evaluated Immunization History and Immunization Forecast is complete but no matching records were found for the person in the query.

2.4. IZ-QR-4_Query_Too_Many

Query finds too many matches

Test Story

Description
A child, James Smith, is brought to the local clinic to determine what immunizations have been given and what immunizations are needed. A clinic staff member collects basic patient demographic information including name, date of birth and sex. A clinic provider uses this information to locate the patient's medical record. The staff member then uses the medical record and system capabilities to query the IIS to request an evaluated history and forecast for the patient. The IIS performs a search for James Smith and finds too many matches. The IIS returns a response message indicating no person found (too many matches) to the querying system. It is expected that the requesting system (e.g., EHR-S) process the response message and display some indication to the end user that the person was not found (too many matches).

Comments

Pre-condition
Person exists in the system with the complete demographics as provided in the Test Data Specification. Person has Medical Record Number (MR). Person may have a record in the IIS, however the IIS is unable narrow the search results to a single match (multiple matches exist).

Post-Condition
The clinician is provided some indication that too many matches were found.

Test Objectives
Tests for a typically valued query message. Test the capability of the EHR-S to process a response message that returns no persons found (too many matches) and to provide an indication to the end user.

Evaluation Criteria
Query Message: Message Validation Report Response Message: Juror Document. The EHR-S receives the response and alerts the clinician that too many matches were found.

Notes
The NIST tool is simulating a response from the IIS. **Important note regarding the Query Tag (QPD-2):** The NIST response message is predefined and is based on the query message. Most systems will automatically create the query tag (Identifier) and will require it for importing, linking, and processing the response message. The NIST test message can be modified such that the query tag matches that query tag generated by the system-under test.

2.4.1. IZ-QR-4.1_Query_Q11_Z44

Test Step Type: SUT_INITIATOR
Query will find too many matches

Test Story

Description
A child, James Smith, is brought to the local clinic to determine what immunizations have been given and what immunizations are needed. A clinic staff member collects basic patient demographic information including name, date of birth and sex. A clinic provider uses this information to locate the patient's medical record. The staff member then uses the medical record and system capabilities to query the IIS to request an evaluated history and forecast for the patient.

Comments
Most of the test data is categorized as Test Case Fixed. It is important that the data is entered into the querying system as specified to enable linking the response message to the patient record.   The sending (querying) system will need to accept a response indicating that too many matches were found.

Pre-condition
More than one person in the IIS matching the parameters in the query exists.

Post-Condition
Response indicates that there are more than one match (too many) and the clinician is informed.

Test Objectives
Tests for a typically valued query message.

Evaluation Criteria
Message Validation Report

Notes
If the HIT Module being tested is unable to control the Patient ID Number value that it creates (1) QPD-3.1 in the Query message can be populated with a different value than the one provided in the test data; (2) the Tester can ignore the associated error notification generated by the Tool; and (3) the Response message also must be modified accordingly.

Message Contents

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	Value-Profile Fixed
MSH-2	Encoding Characters	^~\&	Value-Profile Fixed
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST EHR APP	Presence-Configuration
MSH-3.2	Universal ID		Indifferent
MSH-3.3	Universal ID Type		Indifferent
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST EHR FAC	Presence-Configuration
MSH-4.2	Universal ID		Indifferent
MSH-4.3	Universal ID Type		Indifferent
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST IIS APP	Presence-Configuration
MSH-5.2	Universal ID		Indifferent
MSH-5.3	Universal ID Type		Indifferent
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST IIS FAC	Presence-Configuration
MSH-6.2	Universal ID		Indifferent
MSH-6.3	Universal ID Type		Indifferent
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20150531145156-0500	Presence-System Generated
MSH-9	Message Type		
MSH-9.1	Message Code	QBP	Value-Profile Fixed
MSH-9.2	Trigger Event	Q11	Value-Profile Fixed
MSH-9.3	Message Structure	QBP_Q11	Value-Profile Fixed
MSH-10	Message Control ID	NIST-IZ-QR-4.1_Query_Q11_Z44	Presence-System Generated
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	Presence-Content Indifferent
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	Value-Profile Fixed
MSH-15	Accept Acknowledgment Type	ER	Value-Profile Fixed
MSH-16	Application Acknowledgment Type	AL	Value-Profile Fixed
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z44	Value-Profile Fixed
MSH-21.2	Namespace ID	CDCPHINVS	Value-Profile Fixed
MSH-21.3	Universal ID		Indifferent
MSH-21.4	Universal ID Type		Indifferent
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST EHR FAC	Presence-Configuration
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-1	Presence-Configuration
MSH-22.6.2	Universal ID		Indifferent
MSH-22.6.3	Universal ID Type		Indifferent
MSH-22.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-22.10	Organization Identifier	100-6482	Presence-Configuration
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST IIS FAC	Presence-Configuration
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-1	Presence-Configuration
MSH-23.6.2	Universal ID		Indifferent
MSH-23.6.3	Universal ID Type		Indifferent
MSH-23.7	Identifier Type Code	XX	Value-Test Case Fixed
MSH-23.10	Organization Identifier	100-3322	Presence-Configuration

QPD : Query Parameter Definition

Location	Data Element	Data	Categorization
QPD-1	Message Query Name		
QPD-1.1	Identifier	Z44	Value-Profile Fixed
QPD-1.2	Text	Request Evaluated History and Forecast	Value-Profile Fixed
QPD-1.3	Name of Coding System	CDCPHINVS	Value-Profile Fixed
QPD-2	Query Tag	IZ-4.1-2015	Presence-System Generated
QPD-3	PatientList		
QPD-3.1	ID Number	412299	Value-Test Case Fixed
QPD-3.4	Assigning Authority		
QPD-3.4.1	Namespace ID	NIST-MPI-1	Value-Test Case Fixed
QPD-3.4.2	Universal ID		Indifferent
QPD-3.4.3	Universal ID Type		Indifferent
QPD-3.5	Identifier Type Code	MR	Value-Test Case Fixed
QPD-4	PatientName		
QPD-4.1	Family Name		
QPD-4.1.1	Surname	Smith	Value-Test Case Fixed
QPD-4.2	Given Name	James	Value-Test Case Fixed
QPD-4.3	Second and Further Given Names or Initials Thereof		Indifferent
QPD-4.7	Name Type Code	L	Value-Test Case Fixed
QPD-5	PatientMotherMaidenName		
QPD-5.1	Family Name		
QPD-5.1.1	Surname		Indifferent
QPD-5.7	Name Type Code		Indifferent
QPD-6	PatientDateOfBirth		
QPD-6.1	Time	20110905	Value-Test Case Fixed
QPD-7	Patient Sex	M	Value-Test Case Fixed
QPD-8	Patient Address		
QPD-8.1	Street Address		
QPD-8.1.1	Street or Mailing Address	22 East Branch Way	Value-Test Case Fixed
QPD-8.2	Other Designation		Indifferent
QPD-8.3	City	Livingston	Value-Test Case Fixed
QPD-8.4	State or Province	MT	Value-Test Case Fixed
QPD-8.5	Zip or Postal Code	59047	Value-Test Case Fixed
QPD-8.6	Country		Indifferent
QPD-8.7	Address Type	P	Value-Test Case Fixed List
QPD-9	Phone		
QPD-9.2	Telecommunication Use Code	PRN	Value-Test Case Fixed
QPD-9.3	Telecommunication Equipment Type	PH	Value-Test Case Fixed
QPD-9.4	Email Address		
QPD-9.6	Area/City Code	406	Value-Test Case Fixed
QPD-9.7	Local Number	5556285	Value-Test Case Fixed
QPD-10	Multiple birth indicator		Indifferent
QPD-11	Birth order		Indifferent

RCP : Response Control Parameter

Location	Data Element	Data	Categorization
RCP-1	Query Priority	I	Value-Test Case Fixed
RCP-2	Quantity Limited Request		
RCP-2.1	Quantity	1	Value-Profile Fixed
RCP-2.2	Units		
RCP-2.2.1	Identifier	RD	Value-Profile Fixed
RCP-2.2.2	Text	Records	Presence-Test Case Proper
RCP-2.2.3	Name of Coding System	HL70126	Value-Profile Fixed

Test Data Specification

Patient Information

Element	Data
Patient Name	James Smith
Mother's Maiden Name	
ID Number	412299
Date/Time of Birth	09/05/2011
Sex	Male
Patient Address	22 East Branch Way Livingston MT 59047
Patient Phone	(406)555-6285
Birth Indicator	No
Birth Order	

2.4.2. IZ-QR-4.2_Response_TM_K11_Z33

Test Step Type: TA_RESPONDER
Response message indicating that too matches were found.

Test Story

Description
The IIS performs a search for James Smith and finds too many matches based on the sending system's query (e.g., EHR-S). The IIS returns a response message indicating no person found (too many matches) to the querying system. It is expected that the requesting system (e.g., EHR-S) process the response message and display some indication to the end user that the person was not found (too many matches).

Comments
No Comments

Pre-condition
A query is made to the IIS. Person may have a record in the IIS, however the IIS is unable narrow the search results to a single match (multiple matches exist).

Post-Condition
The clinician is provided some indication that too many matches were found.

Test Objectives
Test the capability of the EHR-S to process a response message that returns no persons found (too many matches) and to provide an indication to the end user.

Evaluation Criteria
Juror Document. Clinician is notified that too many matches were found.

Notes
Important note regarding the Query Tag (QPD-2): The NIST response message is predefined and is based on the query message. Most systems will automatically create the query tag (Identifier) and will require it for importing, linking, and processing the response message. The NIST test message can be modified such that the query tag matches that query tag generated by the system-under test.   **Important note regarding the MSH-10 and MSA-2:** The NIST response message is predefined and is based on the query message. Most systems will automatically create the message control Identifier and may require it for importing, linking, and processing the response message. The NIST response test message can be modified such that MSA-2 matches MSH-10 of the query message generated by the system-under test

Message Contents

MSH : Message Header

Location	Data Element	Data	Categorization
MSH-1	Field Separator	|	
MSH-2	Encoding Characters	^~\&	
MSH-3	Sending Application		
MSH-3.1	Namespace ID	NIST IIS APP	
MSH-3.2	Universal ID		
MSH-3.3	Universal ID Type		
MSH-4	Sending Facility		
MSH-4.1	Namespace ID	NIST IIS FAC	
MSH-4.2	Universal ID		
MSH-4.3	Universal ID Type		
MSH-5	Receiving Application		
MSH-5.1	Namespace ID	NIST EHR APP	
MSH-5.2	Universal ID		
MSH-5.3	Universal ID Type		
MSH-6	Receiving Facility		
MSH-6.1	Namespace ID	NIST EHR FAC	
MSH-6.2	Universal ID		
MSH-6.3	Universal ID Type		
MSH-7	Date/Time Of Message		
MSH-7.1	Time	20141031145233-0500	
MSH-9	Message Type		
MSH-9.1	Message Code	RSP	
MSH-9.2	Trigger Event	K11	
MSH-9.3	Message Structure	RSP_K11	
MSH-10	Message Control ID	NIST-IZ-QR-4.2_Response_TM_K11_Z33	
MSH-11	Processing ID		
MSH-11.1	Processing ID	P	
MSH-12	Version ID		
MSH-12.1	Version ID	2.5.1	
MSH-15	Accept Acknowledgment Type	NE	
MSH-16	Application Acknowledgment Type	NE	
MSH-21	Message Profile Identifier		
MSH-21.1	Entity Identifier	Z33	
MSH-21.2	Namespace ID	CDCPHINVS	
MSH-21.3	Universal ID		
MSH-21.4	Universal ID Type		
MSH-22	Sending Responsible Organization		
MSH-22.1	Organization Name	NIST IIS FAC	
MSH-22.6	Assigning Authority		
MSH-22.6.1	Namespace ID	NIST-AA-1	
MSH-22.6.2	Universal ID		
MSH-22.6.3	Universal ID Type		
MSH-22.7	Identifier Type Code	XX	
MSH-22.10	Organization Identifier	100-3322	
MSH-23	Receiving Responsible Organization		
MSH-23.1	Organization Name	NIST EHR FAC	
MSH-23.6	Assigning Authority		
MSH-23.6.1	Namespace ID	NIST-AA-1	
MSH-23.6.2	Universal ID		
MSH-23.6.3	Universal ID Type		
MSH-23.7	Identifier Type Code	XX	
MSH-23.10	Organization Identifier	100-6482	

MSA : Message Acknowledgment

Location	Data Element	Data	Categorization
MSA-1	Acknowledgment Code	AA	
MSA-2	Message Control ID	NIST-IZ-QR-4.1_Query_Q11_Z44	

QAK : Query Acknowledgment

Location	Data Element	Data	Categorization
QAK-1	Query Tag	IZ-4.1-2015	
QAK-2	Query Response Status	TM	
QAK-3	Message Query Name		
QAK-3.1	Identifier	Z44	
QAK-3.2	Text	Request Evaluated History and Forecast	
QAK-3.3	Name of Coding System	CDCPHINVS	

QPD : Query Parameter Definition

Location	Data Element	Data	Categorization
QPD-1	Message Query Name		
QPD-1.1	Identifier	Z44	
QPD-1.2	Text	Request Evaluated History and Forecast	
QPD-1.3	Name of Coding System	CDCPHINVS	
QPD-2	Query Tag	IZ-4.1-2015	
QPD-3	PatientList		
QPD-3.1	ID Number	412299	
QPD-3.4	Assigning Authority		
QPD-3.4.1	Namespace ID	NIST-MPI-1	
QPD-3.4.2	Universal ID		
QPD-3.4.3	Universal ID Type		
QPD-3.5	Identifier Type Code	MR	
QPD-4	PatientName		
QPD-4.1	Family Name		
QPD-4.1.1	Surname	Smith	
QPD-4.2	Given Name	James	
QPD-4.3	Second and Further Given Names or Initials Thereof		
QPD-4.7	Name Type Code	L	
QPD-5	PatientMotherMaidenName		
QPD-5.1	Family Name		
QPD-5.1.1	Surname		
QPD-5.7	Name Type Code		
QPD-6	PatientDateOfBirth		
QPD-6.1	Time	20110905	
QPD-7	Patient Sex	M	
QPD-8	Patient Address		
QPD-8.1	Street Address		
QPD-8.1.1	Street or Mailing Address	22 East Branch Way	
QPD-8.2	Other Designation		
QPD-8.3	City	Livingston	
QPD-8.4	State or Province	MT	
QPD-8.5	Zip or Postal Code	59047	
QPD-8.6	Country		
QPD-8.7	Address Type	P	
QPD-9	Phone		
QPD-9.2	Telecommunication Use Code	PRN	
QPD-9.3	Telecommunication Equipment Type	PH	
QPD-9.4	Email Address		
QPD-9.6	Area/City Code	406	
QPD-9.7	Local Number	5556285	
QPD-10	Multiple birth indicator		
QPD-11	Birth order		

Test Data Specification

Patient Information

Element	Data
This information will be automatically supplied by the System	

Juror Document

Evaluated Immunization History and Immunization Forecast	
Test Case ID	IZ-QR-4_Query_Too_Many
Juror ID	
Juror Name	
HIT System Tested	
Inspection Date/Time	
Inspection Settlement (Pass/Fail)	Pass / Fail
Reason Failed	
Juror Comments	

DISPLAY VERIFICATION

This Test Case-specific Juror Document provides a checklist for the Tester to use during certification testing for assessing the EHR technology's ability to display information notifying the HIT user that a Return Acknowledgement with No Person Records Z33 message was received (in response to an Evaluated Immunization History and Immunization Forecast Z44 query message). Additional data from the message or from the EHR are permitted to be displayed by the EHR.

The format of this Juror Document is for ease-of-use by the Tester and does not indicate how the EHR display must be designed.

The data shown in this Juror Document are derived from the test data provided with the given Test Case; equivalent data are permitted to be displayed by the EHR. The column headings are meant to convey the kind of data to be displayed; equivalent labels/column headings are permitted to be displayed by the EHR.

Patient Information				
Patient Identifier	**Patient Name**	**DOB**	**Gender**	**Tester Comment**
412299	James Smith	09/05/2011	Male	
When displayed in the EHR with the notification indicating that a Return Acknowledgement with No Person Records Z33 message was received, these patient demographics data are derived from the EHR patient record.				

Evaluated Immunization History and Immunization Forecast
The EHR shall display a notification indicating that the query for an Evaluated Immunization History and Immunization Forecast is complete but too many matching records were found for the person in the query.