Immunization Integration Program (IIP) Testing Requirements by Capability

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Description:

The purpose of this document is to clearly present the testing requirements of the IIP relative to the IMMUNIZATION INTEGRATION PROGRAM: IMMUNIZATION-RELATED CAPABILITIES AND GUIDANCE UPDATE – January 26, 2022.

The Immunization Integration Program has now progressed to encourage clinical software testing and validation, and provides recognition for EHR vendors successfully completing the testing process.

The Immunization Integration Program has established a Technical Council which continue to review public input in order to inform and improve the Program and its testing, validation and recognition processes to ensure success.

KEY:

The By **Capability tab** maps the individual capabilities testing to the requirements section within the IMMUNIZATION-RELATED CAPABILITIES AND GUIDANCE Document. The individual capabilities included in the based testing are all numbered. There are a few completely Trial capabilities which are included as the IIP Testing & Recognition initiative is still gathering data to determine how and if these requirements should be in some way required in the testing.

Test may be:

Required – This is the minimum set of IIP Capabilities that must be supported, including the ONC 170.315 (f)(1) required Capabilities, to pass the IIP test plan.

90% Required – Systems are required to pass 90% of these Capabilities. This means that the Electronic Health Record (EHR) vendor product may choose to not implement some of these Capabilities. If vendors have implemented at least 90% of these Capabilities (**21 or more** of the tests), in addition to the Required Capabilities, they will pass the IIP test plan.

Trial - Capabilities that are in the process of being vetted to promote them as part of the 90% Required as either stand-alone or part of existing Capabilities.

Discovery – Capabilities which are considered Discovery and included for the IIP to gather information on additional Capabilities or features to determine if, how, where and when they should be required in the IIP test plan.

The By **Test Tool Step tab** maps the individual test steps to the Capabilities. In order to pass a given Capability all of the required test steps must pass.

NOTE: Capabilities which support the implementation of a Test Step are noted in blue.

Immunization Integration Program (IIP) Testing Requirements

Core Capabilities (all are required to be tested)

Capability	IIP Requirement	Req. #	Requirement Description	Test Steps That Must Be Passed
1	Required	2.3	**Compare Public Health Immunization Registry (IIS) Immunization History to EHR Immunization History:** The public health immunization registry has returned the requested immunization history for a patient (Return Evaluated Immunization History and Forecast (Z42) – HL7 Version 2.5.1 Implementation Guide for Immunization Messaging Release 1.5). The EHR is able to display the evaluated immunization history received from the registry as well as the immunization history already present in the EHR so that a user can compare them. The EHR provides a way for the provider to view both histories, determine what is different (if anything), and update the existing EHR immunization history with new information from the public health registry if he or she chooses to do so. The system must store the new information as structured data as part of the patient's local immunization history and include the time of the update and the source of the new information.	▪*Initial Data Load→Juana Mariana Vazquez Initial Data Load:* →*Step 2: Enter Initial Immunization Data: Immunizations from Practice* →*Step 3: Enter Initial Immunization Data from Another Practice* →*Step 6: Enter Initial Immunization Data Reported by Parent* ▪*Juana Mariana Vazquez Visit →Query the Registry* →*Step 3 : View and Compare Response to Request for Vaccination History* →*Step 6: Reconcile and import vaccinations from Evaluated History and Forecast* ▪*Juan Marcel Marina Visit→Query the Registry* →*Step 3: View and Import response to Request for Vaccination History* ▪*Initial Data Load→Anita Francesca Marina Initial Data Load* → *Step 4 Provider Review and Entry of Immunization Data for Anita Francesca Marina Provided by Patient*
14	Required	2.2	**Request / Receipt of Patient Immunization History:** The system sends a request to the public health immunization registry "on demand," or in advance for those with scheduled appointments. The request includes the identifying information the immunization registry needs to match each patient with those in the registry including, if present, the mother's maiden name, a multiple birth indicator, and the birth order. The request also is sent in a pre-determined format the registry can read and interpret (Request Evaluated Immunization History and Forecast (Z44) - HL7 version 2.5.1 Implementation Guide for Immunization Messaging Release 1.5).	▪*Juana Mariana Vazquez Visit→Query the Registry:* →*Step 2: Query Registry for Vaccination History and Forecast* ▪*Juan Marcel Marina Visit → Query the Registry:* →*Step 2: Query Registry for Vaccination History and Forecast* ▪*Juana Mariela Gonzales Visit→Query the Registry:* →*Step 2: Query Registry for Vaccination History and Forecast* ▪*Juana Maria Gonzales Visit→Query the Registry:* →*Step 2: Query Registry for Vaccination History and Forecast Too Many Matches Found Response* →*Step 4: Query Registry for Vaccination History and Forecast No Persons Found Response* →*Step 6: Query Registry for Vaccination History and Forecast* ▪*Anita Francesca Marina Visit→Query the Registry:* →*Step 2: Query Registry for vaccination history and recommendations for Anita Francesca Marina*
21	Required	5.7	**Review Patient Immunization History:** The EHR or other clinical software systems displays vaccine history by vaccine series.	▪*Juana Mariana Vazquez Visit→Query the Registry:* →*Step 3: View and Compare Response to Request for Vaccination History* →*Step 6: Reconcile and Import Vaccinations from Evaluated History and Forecast* ▪*Juan Marcel Marina Visit→Query the Registry* →*Step 3: View and Import Response to Request for Vaccination History* ▪*Anita Francesca Marina→Query the Registry* →*Step 3: View and import response to request for vaccination history for adult patient Anita Francesca Marina*

| 23 | Required | 5.11 | **Transmit Standard Patient Immunization History Report:** The EHR or other clinical software system directly or indirectly through an intermediary creates and transmits a report of a patient's newly administered or newly identified immunization history to public health immunization registries. | ▪*Juana Mariana Vazquez Visit→Transmit Immunization Report:*
→*Step 1: Transmit the Immunization Report to the Immunization Registry*
→*Step 2: Receive ACK Z23 from Immunization Registry*

▪ *Juan Marcel Marina Visit → Transmit Immunization Report:*
→*Step 1: Transmit the Immunization Report*
→*Step 2: Receive ACK Z23 from Immunization Registry*
→*Step 3: Transmit Delete for Vaccine Recorded in Error*
→*Step 4: Receive ACK Z23 from Immunization Registry*

▪*Juana Mariela Gonzales Visit→Transmit Immunization Report:*
→*Step 1: Transmit the Immunization Report*
→*Step 2: Receive ACK Z23 from Immunization Registry*

▪*Juana Maria GonzalesVisit→Transmit Immunization Report - Error Handling:*
→*Step 1: Transmit the Immunization Report - Fatal Error Handling*
→*Step 2: Receive ACK Z23 Fatal Error - CVX Code*
→*Step 3: Transmit the Immunization Report - Warning Handling*
→*Step 4: Receive ACK Z23 Warning - Invalid Value*
→*Step 5: Transmit the Immunization Report - Multiple Warning Handling*
→*Step 6: Receive ACK Z23 Multiple Warnings*

▪*Anita Francesca Marina Visit→Transmit Immunization Report:*
→*Step 1: Transmit the Immunization Report*
→*Step 2: Receive ACK Z23 from Immunization Registry* |
| 24 | Required | 3.1 | **View Immunization Forecast:** The EHR or other clinical software system provides a view of the immunization forecast provided by the IIS. The display includes the recommended vaccines and their associated dates (e.g., earliest, recommended, past due, latest) for each vaccine included in the forecast. | ▪*Juana Mariana Vazquez Visit →Query the Registry*
→*Step 5: View the Vaccination Forecast* |

Subject to 90% Required Capabilities (21 or more must be tested).

The IIP would like to see Trial and Discovery Capabilities tested. Based on feedback it is anticipated that these will be moved to the 90% required in future years.

	IIP Requirement	Req. #	Requirement Description	Test Steps That Must Be Passed
2	90% Required	5.6	**Enter Vaccination Order:** The EHR or other clinical software system allows providers to order immunizations for a patient using filters for type of vaccine, including combination vaccines.	▪Juana Mariana Vazquez Visit→Enter Orders and Immunizations →Step 1: Order IPV and View Prior Reaction →Step 6: Order Influenza Vaccine ▪*Juan Marcel Marina Visit →Enter Orders and Immunizations:* →*Step 1: Orders Administration of Hepatitis B Vaccine* →*Step 2: Orders Administration of DTaP Vaccine and Alerted that the Dose is Too Early*
3	90% Required	7.1	**Identify Adverse Event:** The EHR or other clinical software system enables capture of structured data regarding adverse events.	▪*Initial Data Load→Juana Mariana Vazquez Initial Data Load* →*Step 3: Enter Initial Immunization Data from Another Practice* ▪*Juana Mariana Vazquez Visit→Juana Mariana Vazquez Transmit Immunization Report* →*Step 3: Record an adverse reaction*

4	90% Required	5.8	**Link Standard Codes to Immunization Data:** The EHR or other clinical software system links standard codes (i.e., LOINC for lab tests or evaluation tools, SNOMED CT for conditions or observations, NDC codes for current immunizations, CVX for historical immunizations, appropriate codes for administration site, route, method, etc.) to discrete data elements associated with an immunization.	*▪Juana Mariana Vazquez Visit → Transmit Immunization Report* *→Step 1: Transmit the immunization report to the Immunization Registry* *▪Juan Marcel Marina Visit→ Transmit Immunization Report* *→Step 1: Transmit the immunization report to the Immunization Registry* *→Step 3: Transmit Delete for Vaccine Recorded in Error* *▪Juana Mariela Gonzales Visit → Transmit Immunization Report* *→Step 1: Transmit the immunization report to the Immunization Registry* *▪Juana Maria Gonzales Visit→ Transmit Immunization Report - Error Handling* *→Step 1: Transmit the immunization report to the Immunization Registry – Fatal Error* *→Step 3: Transmit the Immunization Report for Juana Maria Gonzales - warning handling* *→Step 5:Transmit the Immunization Report for Juana Maria Gonzales - Multiple warning handling* *▪Anita Francesca Marina Visit → Transmit Immunization Report* *→Step 1: Transmit the immunization report to the Immunization Registry*
5	90% Required	3.4	**Modify Antigen Recommendations Based on Active Diagnoses:** The EHR or other clinical software system notifies the provider of any conflicts between recommended vaccines in the updated forecast and the patient's current or historical diagnoses.	*▪Initial Data Load→Juan Marcel Marina Initial Data Load* *→Step 2: Enter Clinical History* *▪Juan Marcel Marina Visit→Query the Registry for Juan Marcel Marina* *→Step 4: View the vaccination forecast for Juan Marcel Marina* *▪Juana Mariela Gonzales Visit→Enter Orders and Immunizations* *→Step 1: Enter Initial Clinical Information*
6	90% Required	7.3	**Notify of Previous Adverse Event:** The EHR and other clinical software system alert providers to previous adverse events for a specific patient, in order to inform clinical decision-making when providers view an existing immunization record.	*▪Initial Data Load→Juana Mariana Vazquez Initial Data Load* *→Step 3: Enter Initial Immunization Data from Another Practice* *▪Juana Mariana Vazquez Visit→Enter Orders and Immunizations* *→Step 1: Order IPV and View Prior Reaction*
7	90% Required	4.4	**Notify of Vaccine Dose Expiration:** The EHR or other clinical software system notifies the provider administering a vaccine if the dose chosen for administration is expired. **Note:** At one time there was a duplicate Capability 30 that has been re-used).	*▪Juan Marcel Marina Visit→Enter Orders and Immunizations* *→Step 4: Records Hepatitis B Vaccine Lot Number with Expired Lot Alert*
8	90% Required	5.4	**Notify of Vaccine Dose Ineligibility:** The EHR or other clinical software system provides a method for alerting a provider if a vaccine is selected for a patient who is not eligible for the inventory item selected.	*▪Juan Marcel Marina Visit→Enter Orders and Immunizations* *→Step 6: Records Influenza Vaccine Administration with VFC Eligibility Checking*
9			**Intentionally Left Blank**	
10	90% Required	5.14	**Produce Immunization Forecast Report:** The EHR or other clinical software system creates a list of immunizations to be administered within a specified timeframe.	*▪ Juana Mariana Vazquez Visit→Display Immunization Report* *→Step 1: Produce an Immunization Report Including All History*
11	90% Required	6.1	**Produce Population-Level Report:** The EHR or other clinical system generates aggregate, population-level reports based on known patient immunization data.	*▪Reporting→Due and Overdue Immunizations* *→Step 1: Produce Overdue Immunizations Cohort Report*
12	90% Required	5.10	**Produce Standard Patient Immunization History Report:** The EHR or other clinical software system produces a report of a patient's immunization history that is appropriate for various entities, such as schools and day-care centers.	*▪Juana Mariana Vazquez Visit→Display Immunization Report* *→Step 1: Produce an Immunization Report Including All History*
13			**Intentionally Left Blank**	

15	90% Required	3.6	**Receive Dose Not Indicated Alert for Single Vaccine Order:** The EHR or other clinical software system notifies the provider in instances when there are single or combination vaccine orders that are inconsistent with the expected timing intervals included in the vaccine forecast. Inconsistencies include suggestion of different date(s) for ordering the vaccine(s) or indication the vaccine(s) is/are no longer required.	▪*Initial Data Load→Juana Mariana Vazquez Initial Data Load* →*Step 2: Enter Initial Immunization Data: Immunizations from Practice* ▪*Juana Mariana Vazquez Visit→Query the Registry:* →*Step 2: Query the Registry for Vaccination History and Forecast* →*Step 3: View and Compare Response to Request for Vaccination History* →*Step 6: Reconcile and Import Vaccinations from Evaluated History and Forecast* ▪*Juana Mariana Vazquez Visit→Enter Orders and Immunizations:* →*Step 4: Enter Immunization Data for MMR Given 2 Weeks Prior* →*Step 5: Attempt to Order Varicella Dose* ▪*Juan Marcel Marina Visit→Query the Registry* →*Step 3: View and Import Response to Request for Vaccination History* ▪*Juan Marcel Marina Visit→Enter Orders and Immunizations* →*Step 2: Orders Administration of DTaP Vaccine and Alerted that the Dose is Too Early*
16	90% Required	5.3	**Record Past Immunizations:** The EHR or other clinical software system allows providers to enter information about immunizations given elsewhere (e.g., by another doctor, at a public health clinic, pharmacy, etc.) with incomplete details.	▪*Initial Data Load→Juana Mariana Vazquez Initial Data Load:* →*Step 2: Enter Initial Immunization Data: Immunizations from Practice* →*Step 3: Enter Initial Immunization Data from Another Practice* →*Step 6: Enter Initial Immunization Data Reported by Parent* ▪*Juana Mariana Vazquez Visit→Enter Orders and Immunizations* →*Step 4: Enter Immunization Data for MMR Given 2 Weeks Prior* ▪*Initial Data Load→JAnita Francesca Marina Initial Data Load:* →*Step 4: Provider Review and Entry of Immunization Data for Anita Francesca Marina Provided by Patient*
17	90% Required	5.2	**Record Vaccine Administration Deferral:** The EHR or other clinical software system allows a user to enter a reason or reasons why a specific immunization was not given to a patient (e.g., due to contraindication, refusal, etc.). The system also stores that information in a structured way so it can be reported and analyzed as needed.	▪Juana Mariana Vazquez Visit→Enter Orders and Immunizations: →Step 1: Order IPV and View Prior Reaction →Step 3: IPV Parental Refusal ▪*Juana Mariela Gonzales Visit→Enter Orders and Immunizations:* →*Step 1: Enter Initial Clinical Information* →*Step 2: Enter a Deferral for the Vaccines Due*
18	90% Required	5.9	**Record Vaccine Administration:** The EHR or other clinical software system records information about each vaccine administered. The EHR records this information as structured data elements, including, at a minimum: date administered, administering clinician, route of administration (e.g. intramural), site of administration (e.g., left arm), immunization type, lot number, manufacturer, Vaccine Information Statement date, quantity of vaccine/dose size and ordering clinician. The system also assures data quality, i.e., data entered are appropriate (e.g., avoid "oral" route for IM vaccines, and assure dose is appropriate for the vaccine).	▪*Juana Mariana Vazquez Visit→Enter Orders and Immunizations:* →*Step 8: Record Influenza Vaccine Administration* ▪*Juan Marcel Marina Visit →Enter Orders and Immunizations:* →*Step 3: Attempt to Record HepB Vaccine Administration Route with Data Validation Checking* →*Step 5: Record Hepatitis B Vaccine Administration* →*Step 7: Record Influenza Vaccine Administration* ▪*Juana Maria Gonzales Visit→Enter Orders and Immunizations* →*Step 1: Record Combo Vaccine Administration* ▪*Anita Francesca Marina Visit→Enter Orders and Immunizations* →*Step 2: Record Vaccine Administration for Hepatitis B* →*Step 3: Record Vaccine Administration for New Vaccine*

19	90% Required	1.1	**Register New Patients:** The EHR or other clinical software system must allow a user to enter distinguishing information about patients so that providers can uniquely identify patients who have similar sounding names or other similar identifying information. For example, twins living in the same household will have similar dates of birth, addresses, and may have similar names. EHRs or other clinical software must be able to store information to successfully match with patients in immunization registries, if the information is available. Specific to immunization registries, that information includes the mother's maiden name, whether the patient was part of a multiple birth, and the birth order (i.e., ordinal number of birth, first, second, etc.). This information allows the provider to correctly identify the patient and also helps ensure a match when the EHR send the patient's information to external systems such as an immunization registry.	*▪Initial Data Load→Juana Mariana Vazquez Initial Data Load* *→Step 1: Enter Initial Demographic Data for New Patient* *▪Initial Data Load→Juan Marcel Marina Initial Data Load* *→Step 1: Enter Initial Demographic Data for New Patient* *▪Initial Data Load→Juana Mariela Gonzales - Initial Data Load* *→Step 1: Enter Initial Demographic Data* *▪Initial Data Load→Juana Maria Gonzales Initial Data Load* *→Step 1: Enter Initial Demographic Data* *▪Initial Data Load→Anita Francesca Marina Initial Data Load* *→Step 2: Enter Initial Demographic Data*
20	90% Required	2.4	**Request/Receive Patient Immunization Data and Identify Source:** The EHR or other clinical software system stores immunization history accepted electronically from other sources (such as a public health immunization registry consistent with HL7 version 2.5.1, Implementation Guide for Immunization Messaging Release 1.5) or communicated by the patient and manually entered by the clinician. When viewing such information, the provider can determine which immunizations were administered by the practice, which were entered historically as patient-reported, and which were accepted electronically from the public health registry.	*▪Initial Data Load →Juana Mariana Vazquez Initial Data Load:* *→Step 2: Enter Initial Immunization Data: Immunizations from Practice* *→Step 3: Enter Initial Immunization Data from Another Practice* *→Step 6: Enter Initial Immunization Data Reported by Parent* *▪Juana Mariana Vazquez Visit→Query the Registry* *→Step 3: View and Compare Response to Request for Vaccination History* *→Step 6: Reconcile and Import Vaccinations from Evaluated History and Forecast* *▪Juana Mariana Vazquez Visit→Enter Orders and Immunizations* *→Step 4: Enter Immunization Data for MMR Given 2 Weeks Prior* *▪Juan Marcel Marina Visit→Query the Registry:* *→Step 3: View and Import Response to Request for Vaccination History* *▪Juana Mariela Gonzales Visit→Query the Registry:* *→Step 3: View and Import Response to Request for Vaccination History* *▪Juana Maria Gonzales Visit→Query the Registry:* *→Step 3: Error Handling - Too Many Matches Found* *→Step 5: Error Handling - No Persons Found* *→Step 7: View and Import Response to Request for Vaccination History* *▪Initial Data Load→Anita Francesca Marina Initial Data Load:* *→Step 4: Provider Review and Entry of Immunization Data for Anita Francesca Marina Provided by Patient* *▪Anita Francesca Marina Visit→Query the Registry* *→Step 3: View and Compare Response to Request for Vaccination History*
22	90% Required	1.2	**Select New Patient:** The EHR or other clinical sotware system must allow a user to distinguish information about patients with similar names or identifying information in order to select the right patient from the providers' EHR or other clinical software. This information is crucial for identifying and selecting the correct patient. For example, twins living in the same household will have similar dates of birth, addresses, and may have similar sounding names. In order to match patients with those already in the immunization registry, the EHR or other clinical software should have the ability to record the mother's maiden name, whether the patient was part of a multiple birth, and if so, the order of birth (when such information is available). The provider should be aware of how often the protection indicator information must be updated based on local rules.	*▪Juana Mariana Vazquez Visit→Query the Registry* *→Step 1: Select Patient* *▪Juan Marcel Marina Visit→Query the Registry:* *→Step 1: Select Patient* *▪Juana Mariela Gonzales Visit→Query the Registry:* *→Step 1: Select Patient* *▪Juana Maria Gonzales Visit→Query the Registry:* *→Step 1: Select Patient*

25	90% Required	3.2	**View Reconciled Immunization Forecast:** The EHR or other clinical software system has the ability to re-evaluate and update the immunization forecast using a patient's newly updated immunization history. Forecasts are updated following reconciliation of immunization data contained in the public health immunization registry with immunization data contained in the EHR. Processing the new forecast can be internal to the EHR or it can use an external forecasting service, but should reference the most recent recommendations.	*▪Juana Mariana Vazquez Visit→Query the Registry* *→Step 7: View the updated vaccination forecast for Juana Mariana Vazquez* *▪Juan Marcel Marina Visit →Query the Registry* *→Step 4: View the Vaccination Forecast for Juan Marcel Marina* *▪Juana Mariela Gonzales Visit→Query the Registry* *→Step 4: View the Vaccination Forecast for Juana Mariela Gonzales* *▪Juana Maria Gonzales Visit→Query the Registry* *→Step 8: View the Vaccination Forecast for Juana Maria Gonzales* *▪Initial Data Load→Anita Francesca Marina Initial Data Load:* *→Step 5: Enter Clinical History for Anita Francesca Marina* *▪Anita Francesca Marina Visit→Query the Registry* *→Step 4: View the vaccination recommendations for Anitia Francesca Marina*
26	90% Required	8.1	**Provide Access to Patient Immunization Record:** The EHR or other clinical software system provides patients and their authorized representatives with electronic access to immunization records (either directly or by interacting with an external system such as a patient portal).	*▪Juana Mariana Vazquez Visit →Provide Patient Access to Immunization Report* *→Step 1: Produce an Immunization Report Including All History* *→Step 2: Provide access to Printable Immunization Record for Juana Mariana Vazquez*
27	90% Required	4.2	**Update Vaccine Inventory from Patient Dosage Administration:** The EHR or other clinical sotware system updates the vaccine inventory to ensure the correct count of remaining available vaccine inventory.	*▪Review Inventory→View Inventory* *→Step 1: View updated vaccine inventory* *[Vaccines administered for Juana Mariana Vazquez, Juan Marcel Marina, Juana Maria Gonzales and Anita Francesca Marina.* *Demonstrates the ability to view updated inventory supply.]*
28	90% Required	4.1	**Display Available Vaccine Antigens:** The EHR or other clinical sotware system presents a list of vaccine antigens available for administration to patients (i.e., private stock vs. specific guarantee program).	*▪Initial Data Load→Enter Inventory→Step 2: View Inventory*
29	90% Required	4.3	**Update Vaccine Inventory from Stock Receipt:** The EHR or other clinical software system updates the vaccine inventory when new stock is received at the site and updates the correct count of each vaccine, including those for use in guarantee programs (such as Vaccines for Children) and for private stock.	*▪Initial Data Load→Enter Inventory* *→Step 1: Enter Vaccine Inventory* *[Vaccines administered for Juana Mariana Vazquez, Juan Marcel Marina, Juana Maria Gonzales, and Anita Francesca Marina.]*
2022-2	90% Required		**Record Vaccine Information by Scanning 2D Barcode Found on Unit-of-Use for Vaccine Administration:** The EHR or other clinical software system allows users to record vaccination information from 2D barcodes (GS1 DataMatrix) found on unit-of-use (vial or prefilled syringe) for each vaccine administered. This 2D barcode contains: the Global Trade Item Number (GTIN), expiration date and lot number. The GTIN contains the National Drug Code (NDC) and manufacturer data elements. Implementers can use mapping tables to determine the manufacturer from this NDC code. The software system records these elements as structured data elements so the immunization administration message can use them to include the NDC code and manufacturer in the message to the IIS.	*▪Juana Mariana Vazquez Visit→Enter Orders and Immunizations:* *→Step 7: Vaccine Dosing and Administration Data Quality Checks* *→Step 8: Record Influenza Vaccine Administration* *▪Juan Marcel Marina Visit→Enter Orders and Immunizations:* *→Step 3: Attempt to record HepB Vaccine administration route with data validation checking* *→Step 4: Records Hepatitis B Vaccine lot number with expired lot alert* *→Step 5: Record Hepatitis B Vaccine administration* *→Step 6: Records Influenza Vaccine administration with VFC eligibility checking* *→Step 7: Record Influenza Vaccine administration for Juan Marcel Marina* *▪Juana Maria Gonzales Morales Visit→Enter Orders and Immunizations* *→Step 1: Record Combo Vaccine Administration* *▪Anita Francesca Marina Visit→Enter Orders and Immunizations* *→Step 2: Record Vaccine Administration for Hepatitis B* *→Step 3: Record Vaccine Administration for New Vaccine*
30			**Notify of Vaccine Dose Expiration:** Duplicate of Capability 7. Capability 30 re-used.	

30	Trial	8.2	**Provide Access to Recommendations and Vaccine Information Statement(s):** The immunization record displays immunization recommendations to be discussed with a provider, displaying the relevant Vaccine Information Statement.	▪*Juana Mariana Vazquez Visit →Provide Patient Access to Immunization Report* →*Step 1: Produce an Immunization Report Including All History* →*Step 3: Provide access to Vaccine Information Statements*
31	Trial	4.5	**Produce Vaccine History Report:** The EHR or other clinical software system generates inventory reports of remaining stock. The reports can be sorted by expiration date and source (e.g., private or guarantee program).	▪*Review Inventory→ Produce Inventory Report of Remaining Stock* →*Step 1: Produce Stock Inventory Report - Expiration Date Sort* →*Step 2: Produce Stock Inventory Report - Funding Source Sort*
32	Trial	1.3	**Select One or More Patients:** The EHR or other clinical sotware system must allow a provider to specify one or more patients in real time or those scheduled for appointment(s) in the future (e.g., the next day, week, month, etc.) so that a request can be sent to the public health immunization registry for each patient's complete immunization history.	▪*Anita Francesca Marina Visit→Query the Registry for Anita Francesca Marina* *Step 1→Select the Set of Patients to be Seen in the Vaccination Clinic*
33	Trial	9.1	**Add New Vaccine Codes:** This includes vaccine codes (CVX), National Drug Codes (NDC), and Vaccine Information Statement codes (VIS).	▪*Initial Data Load→Manage Configuration* →*Step 1: Add New Vaccine Information*
34	Trial	3.7	**Receive Dose Not Indicated Alert Upon Vaccine Administration:** The EHR or other clinical sotware system notifies the individual administering a vaccine that the vaccine is inconsistent with expected timing intervals as suggested by the vaccine forecast. The method and timing of notification can be specified to meet local clinical workflow. This requirement is a "failsafe" mechanism in case the provider orders a vaccine dose that is inconsistent with appropriate timing intervals.	▪*Juan Marcel Marina Visit→Juan Marcel Marina, Enter Orders and Immunizations* →*Step 8: Attempt to administer DTaP vaccine and alerted that the dose is too early*
35	Trial	3.5	**Update Patient Immunization Schedule:** The EHR or other clinical software system displays a patient's anticipated immunization schedule routinely and updates the patient's schedule when immunization guidelines change.	▪*Initial Data Load→Manage Configuration* →*Step 2: Update Vaccine Schedule Information*
36	Trial	8.3	**Provide Access to Printable Immunization Record:** The EHR or other clinical software system provides a printable version of the immunization record.	▪*Juana Mariana Visit→Juana Mariana Vazquez Provide Patient Access to Immunization Report* →*Step 2: Provide access to Printable Immunization Record for Juana Mariana Vazquez*
37	Trial	6.2	**Notify Patients of Immunization Status:** The EHR or other clinical software provides the ability to notify patients of recommendations based on their individual preferences for receiving notification.	▪*Anita Francesca Marina Visit→Notify Patients of Immunization Status* → *Step 1: Notify New Vaccine Candidate Patients*
38	Trial	9.2	**Configure SOAP-based CDC WSDL for Transport:** The EHR or other clinical software system configures connectivity using the SOAP-based CDC WSDL and demonstrates compliance with the transport standard.	▪*Initial Data Load→Manage Configuration* →*Step 3: Configure SOAP-based CDC WSDL*
39	Evaluation	9.3	**Data Quality Checks:** The EHR or other clinical sotware system integrates additional data quality checks into IIP Testing and Recognition to improve data quality and reduce rejections.	▪*Initial Data Load→Juana Mariana Vazquez Initial Data Load* →*Step 4: Attempt to enter vaccination too long ago for Juana Mariana Vazquez* →*Step 5: Attempt to enter historical vaccination for current date for Juana Mariana Vazquez* ▪*Initial Data Load→Anita Francesca Marina Initial Data Load* →*Step 1: Demographic Data Quality Checks for Anita Francesca Marina* ▪*Juana Mariana Visit→Juana Mariana Vazquez, Enter Orders and Immunizations* →*Step 2: Vaccine Refusal Data Quality Checks* →*Step 7: Vaccine Dosing and Administration Data Quality Checks* ▪*Juan Marcel Marina Visit→Enter Orders and Immunizations* →*Step 3: Attempt to Record HepB Vaccine Administration Route with Data Validation Checking* →*Step 4: Records Hepatitis B Vaccine lot number with expired lot alert* →*Step 6: Records Influenza Vaccine administration with VFC eligibility checking* ▪*Juana Mariela Gonzales Visit→Juana Mariela Gonzales, Enter Orders and Immunizations* →*Step 2: Vaccine Deferral Data Quality Checks* ▪*Anita Francesca Marina Visit→Anita Francesca Marina, Enter Orders and Immunizations* →*Step 1: Vaccine Administration Data Quality Checks*

40	Trial	8.5	**Review Patient-Provided Immunization Information:** The EHR or other clinical software system provides a mechanism for the provider to review patient-generated immunization data. It also provides a mechanism for the provider to update or annotate the immunization history, indicating the source of the information.	•*Initial Data Load→Anita Francesca Marina Initial Data Load* *→Step 4: Provider Review and Entry of Immunization Data for Anita Francesca Marina Provided by Patient*
41	Trial	8.4	**Provide Access to Update Immunization Information:** The patient is able to add or request an update to immunization information for review by the provider.	•*Initial Data Load→Anita Francesca Marina Initial Data Load* *→Step 3: Anita Francesca Marina Electronically Submits Prior Immunization to Provider*
2022-1	Discovery		**Add Jurisdiction-Specific Vaccine Eligibility Code:** The EHR or other clinical software system demonstrates the ability to configure publicly funded dose level vaccine eligibility codes per jurisdictional requirements. This includes tracking and exchanging jurisdiction-specific dose level eligibility code(s) for administered vaccines. This capability only applies to newly administered doses, and not historical doses.	•*Initial Data Load→Manage Configuration* *→Step 4: Configure State Specific Vaccine Eligibility Code* •*Juan Marcel Marina Visit→Enter Orders and Immunizations* *→Step5: Record Hepatitis B Vaccine administration*
2022-3	Discovery		**Acknowledgment Data Reporting:** The EHR or other clinical software is able to generate an Aggregate Error Report using the acknowledgment error message data returned in the ACK response to a vaccine update message (VXU/Z22). The report data must include the following data elements: •⊠Clinic code and name •⊠Patient identifier •⊠Vaccination date •⊠IIS error severity •⊠IIS error code and description The aggregate report functionality should include grouping and sorting by error code, clinic, and vaccination date. Drill-down capability by error or date should also be supported as it is important to support identifying the source of the data errors and to correct the issue.	•*Reporting→Acknowledgment Error Reporting* *→Step 1: Produce Acknowledgements Report*

Immunization Integration Program (IIP) Testing Requirements

Test Tool Step NOTE: Capabilities which support the implementation of a Test Step are noted in blue.	Capability #	*Required Capabilities are 1, 14, 21, 23, and 24
Initial Data Load:		
Juana Mariana Vazquez Initial Data Load:		
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