

170.315.f.1 Transmission to Immunization Registries

Real World Test Plan

Test Criteria: 170.315.f.1 – Transmission to Immunization Registries

General Information

Plan Report ID Number: [For ONC-Authorized Certification Body use Only]

General Information	Answer
Participant	Champ Software
Setting (Ambulatory or Inpatient)	Ambulatory
Real World Tester	Various Public Health Departments
Partner Tester	Immunization Registries our agencies are utilizing
Test Date	April 2022
Developer Name	Ron Colwill
Product Name	Nightingale Notes
Version	33.0
CHPL ID	15.04.04.2993.Nigh.33.00.1.171016
Developer Real World Testing Page URL	https://staging.nightingalenotes.com https://nightingalenotes.com

Justification for Real World Testing Approach

Champ Software has one product only – Nightingale Notes. The immunization transmissions are in production today and in use in 7 states. All states are using HL7 2.5.1 and bi-directional, real time exchange. The immunization transmissions are in use within Nightingale Notes to only one healthcare setting; public health. Nightingale Notes is a cloud-based hub model. All immunization records are stored and transmitted using the same code base and protocols. There are some differences in the value sets accepted by each state, to accommodate for state requirements. The testing will be done with an agency that is sends the highest number of immunization records because that is a good representation of other agency use cases.

The immunization transmission from Nightingale Notes is done on a patient-by-patient basis. There are no batches of patient records sent. Champ Software will remotely observe the test session, recording the entire session and taking screenshots of the results of each test to include in the testing report.

Some of the testing will be done in the production environment using live data. If during the testing timeframe there is not actual data to match a scenario, for example deleting a vaccine, then that test will be done in a staging environment with a copy of actual patient data. This will protect the integrity of the data in production and still allow the test to be completed. The staging environment is a mirror of production code.

Standards Updates

Nightingale Notes was certified in 2017 using the 2016 standards. The current standards will be tested for.

Not Applicable

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Measures Used in Overall Approach

There is only one care setting served by Nightingale Notes for immunization transmissions. Here are the measures that will be tested by the end users and the expected result.

- Query for existing record – match, no match or multiple match (production/staging)
 - Measure: The end user will look up 6 client records in Nightingale Notes.
 - The expected result would be the end user is able to determine if that client is a match, no match or multiple matches to a client that exists in the registry 100% of the time.
 - Justification: This will allow the end user to test if Nightingale Notes is able to distinguish a client match, no client matches or multiple client matches.
- Add new vaccine (production)
 - Measurement: The end user will add a vaccine to 5 clients in Nightingale Notes.
 - The expected result is the end user is able to successfully send vaccination data to the registry 98% of the time with no errors.
 - Justification: This will allow the end user to see if Nightingale Notes has all of the fields available that need to be submitted to the registry as required. It will also determine if we are sending the appropriate formatted HL7 message and code sets for those same fields for a vaccine administered.
- Add subsequent vaccines (production/staging)
 - Measurement: The end user will add multiple vaccines to 5 clients in Nightingale Notes.
 - The expected result is the end user is able to successfully send vaccination data to the registry 98% of the time.
 - Justification: This will allow the end user to see if Nightingale Notes has all of the fields available that need to be submitted to the registry as required. It will also determine if we are sending the appropriate formatted HL7 message and code sets for those same fields for subsequent vaccines administered.
- Update a vaccine (production/staging)
 - Measurement: The end user will update 4 vaccine records in Nightingale Notes.
 - The expected result is the end user is able to successfully update a vaccine record 80% of the time.
 - Justification: This will allow the end user to see if Nightingale Notes is able to update a vaccine record. This is dependent on if the registry allows for vaccine updates which accounts for the lower percentage.
- Delete a vaccine (production/staging)
 - Measurement: The end user will delete 4 vaccine records in Nightingale Notes.
 - The expected result is the end user is able to successfully delete a vaccine 80% of the time.
 - Justification: This will allow the end user to see if Nightingale Notes is able to delete a vaccine. This is dependent on if the registry allow for vaccines to be deleted which accounts for the lower percentage.
- Edit demographics only (production/staging)
 - Measurement: The end user will update/edit demographic data for 4 clients in Nightingale Notes.
 - The expected result is the end user is able to successfully update client demographics 80% of the time.
 - Justification: This will allow the end user to see if Nightingale Notes is able to update a vaccine record. This is dependent on if and what the registry allows the agency to update for client demographics which would account for the lower percentage.
- Add Refusal (production/staging)
 - Measurement: The end user will add a refusal for 4 clients in Nightingale Notes.

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- The expected result is the end user is able to successfully add a vaccine refusal for a client 80% of the time.
- Justification: This will allow the end user to see if Nightingale Notes is able to send a vaccine refusal without errors. This is dependent on if the registry allows refusals to be added for a vaccine which accounts for the lower anticipated percentage.
- Add Historical (production/staging)
 - Measurement: The end user will add in historical vaccinations for 4 clients in Nightingale Notes.
 - The expected result is the end user is able to successfully send historical vaccine records for clients 98% of the time.
 - Justification: This will allow the end user to see if Nightingale Notes is able to send historical vaccine records with the appropriate formatted HL7 message and code sets to the immunization registry
- Demonstrate a soft warning returned from IIS displays in Nightingale Notes (production/staging)
 - Measurement: The end user will leave out several pieces of client demographic information on 4 new client records they are adding vaccinations to.
 - The expected result is the end user will see a message in Nightingale Notes alerting them to the missing information that is populating from the registry in 80% of those clients.
 - Justification: This will allow the end user to see a soft warning coming back from the registry. This is dependent on the types of messages the registry produces back to the EHR.
- Demonstrate multiple soft warning returned from IIS displays in Nightingale Notes (production/staging)
 - Measurement: The end user will leave out a piece of client demographic information on 4 new client records they are adding vaccinations to.
 - The expected result is the end user will see a message in Nightingale Notes alerting them to the missing information that is populating from the registry in 80% of those clients.
 - Justification: This will allow the end user to see several soft warnings coming back from the registry. This is dependent on the types of messages the registry produces back to the EHR.
- Demonstrate a fatal error returned from IIS displays in Nightingale Notes (production/staging)
 - Measurement: The end user will leave out a piece of vaccine information on 4 client records they are adding vaccinations to.
 - The expected result is the end user will see a message in Nightingale Notes alerting them to an error that is populating from the registry in 90% of those clients.
 - Justification: This will allow the end user to see a fatal error being returned from the registry. This is dependent on the types of messages the registry produces back to the EHR.
- Demonstrate Forecasting Information is available and accurate (production)
 - Measurement: The end user will open 5 client records that have existing records in Nightingale Notes and in the registry and view their immunization forecasting.
 - The expected result is the end user will see that client's forecasting information in 100% of those clients.
 - Justification: This will allow the end user to see if Nightingale Notes populated the registry's forecasting information without alteration.
- Demonstrate Historical Information is available and accurate (production)
 - Measurement: The end user will open 5 client records that have existing records in Nightingale Notes and in the registry and view their historical immunization information.
 - The expected result is the end user will see that client's historical immunization history in 100% of those clients.
 - Justification: This will allow the end user to see if Nightingale Notes populated the client's historical immunization history as expected.

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Schedule of Key Milestones

- November 15, 2021 – Finalization of the Real World Testing plan and submission to ONC-ACB per ONC-ACB instruction
- January 31, 2022 – Collection of information as laid out by the test plan; development of candidate list of providers to assist with Real World Testing
- February 28, 2022 – Completion of Test Suites
- March 1, 2022 – Cycle of testing begins
March 31, 2022 – Cycle of testing ends
- April 11, 2022 – Begin collection of all data for analysis
- May 1, 2022 – Analysis and report creation

Test Data and Tools

Test Data Source:	Public Health agency production data
Pre-Test Data Setup:	<p>During the time of vaccine clinics or individual vaccine appointments, a public health department will enter:</p> <ul style="list-style-type: none">○ Eight (8) test patients using demographics and immunization test data from the ten (10) cases under "Administration Group"○ Four (4) test patients using demographics test data under "Evaluated History and Forecast Group"
Test Data:	Actual immunizations with real patients will be used
Test Tools:	Nightingale Notes production and staging environments

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Demonstrate Standards Support

Test Result:	PASS: <input type="checkbox"/>	FAIL: <input type="checkbox"/>	No Attempt: <input type="checkbox"/>
Instructions: Implement standards below for immunization content.			

	Standard	
<input type="checkbox"/>	§170.205(e)(4)	HL7 2.5.1 Implementation Guide for Immunization Messaging, Release 1.5, October 2014; and HL7 Version 2.5.1 Implementation Guide for Immunization Messaging (Release 1.5) – Addendum, July 2015.
<input type="checkbox"/>	§170.207(e)(3)	HL7 Standard Code Set CVX – Vaccines Administered, updates through August 17, 2015.
<input type="checkbox"/>	§170.207(e)(4)	National Drug Code Directory – Vaccine Codes, updates through August 17, 2015.

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Test Procedures

1.1 Create immunization information messages

<input type="checkbox"/>	User identifies each patient record where an immunization will be given: (V04_Z22): <ul style="list-style-type: none">• Please list 10 patient records by client id to be included in the test
<input type="checkbox"/>	<p>User generates the HL7 v2.5.1 Z22 messages for each patient and screenshots capture the results</p> <p>Administration Group</p> <p>Test Cases consists of 2 steps (part I and II):</p> <ol style="list-style-type: none">1. creating immunization messages based on the Immunization Messaging Standard (Z22 Profile-VXU Message) and specific Test Data, and2. receiving acknowledgment messages based on the Immunization Messaging Standard (Z23 Profile-ACK Message). <p>Objective: This test 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.</p> <p>[Insert Patient Last Name, First Name, and Client ID]</p> <ol style="list-style-type: none">3. Enter Last Name, First Name and Click Search in Nightingale Notes4. Identify the correct client in the client list5. Click on their Immunizations tab6. Click the drop down for Patient Protection and select, No, do not protect the data (share).7. Click Add Other Vaccination8. <i>Administered on:</i> enter current date9. <i>Vaccine:</i> select vaccine10. <i>Supply:</i> select supply option if more than one11. <i>Pay Source:</i> select option12. <i>Lot Data:</i> select appropriate lot if there is more than one option13. Funding source, Lot Number, Lot expires on, Manufacturer, Dosage Amount, Dosage Unit will autofill14. <i>VFC eligibility:</i> choose appropriate value15. <i>Route:</i> select from dropdown16. <i>Administration Site:</i> select from dropdown17. <i>Administered by:</i> select from dropdown

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18. *VIS given*: check correct VIS
19. Click Create
20. Click Send to Registry
21. Add Subsequent Vaccine if applicable:
22. Click *Additional Vaccination*
23. Administered on, VFC eligibility, Route and Administered by will auto populate
24. *Vaccine*: select from dropdown
25. *Supply*: select supply if there is more than one option
26. *Pay source*: select from dropdown
27. *Lot Data*: select appropriate lot if there is more than one option
28. Funding source, Lot number, Lot expires on, Manufacturer, Dosage Amount and Dosage Unit will autofill
29. *Route*: select from dropdown
30. *Administration Site*: select from dropdown
31. *VIS given*: check appropriate VIS
32. Click Create
33. Click Send to Registry
34. Add Historical Vaccination if applicable
35. *Administered on*: enter appropriate date
36. *Doctor/Clinic/Source*: enter appropriate data
37. *Vaccine*: select from dropdown
38. Click Create
39. Click Send to Registry
40. Record screen shot of Nightingale Notes showing the data for the client once sent to the registry.

Delete Record

Objective: This tests the ability to the EHR to consume a valid ACK message when deleting a record. There may not be a production use case for deletion. **This test may be done in the staging environment which is a mirror of production but does not update production data.**

[Insert Client First Name, Last Name, and Client ID]

41. Enter Last Name, First Name; Click Search in Nightingale Notes

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42. Identify the correct client in the client list
43. Click on their Immunizations tab
44. Under the Vaccination History section, click on the delete icon under an existing vaccine administered.
45. A pop will appear asking you to delete the vaccination. It may have a select icon that asks you to delete from NN or from the registry. Click registry select box. You may have to delete again to delete it from NN.
46. Click Delete.
47. Record a screen shot showing the screen with the record deleted successfully.

Refusal

Objective: This test case assesses the ability of the EHR to create an administration message for a client that has refused an immunization. **There may not be a production use case for refusal. This test may be done in the staging environment which is a mirror of production but does not update production data.**

[Insert Client First Name, Last Name, and Client ID]

48. Enter Last Name, First Name; Click Search in Nightingale Notes
49. Identify the correct client in the client list
50. Click on their Immunizations tab
51. Click the drop down for *Patient Protection* and select, *No, do not protect the data (share)*.
52. Click on *Add Refusal* under *Refusals*
53. Vaccine: select from dropdown
54. Refusal: select *Parental decision*
55. Refused on: enter date
56. Click *Create*
57. Record screen shot of Nightingale Notes showing the data for the client once sent to the registry.

Multiple Birth Order:

Objective: This test assesses the ability of the EHR to create an administration message to support multiple birth indicator and order. **There may not be a production use case for**

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multiple birth order. This test may be done in the staging environment which is a mirror of production but does not update production data.

[Insert Client First Name, Last Name, and Client ID]

58. Enter Last Name, First Name; Click Search in Nightingale Notes

59. Identify the correct client in the client list

60. Click on *Details*

61. Click on *Health History*

62. Under Birth History, select drop down for *Multiple Birth* and choose “yes, the patient was part of a multiple birth”

63. Enter in birth order

64. Click Save

65. Click on their *Immunizations* tab

66. Click the drop down for *Patient Protection* and select, ***No, do not protect the data (share)***.

67. Click Add Other Vaccination

68. *Administered on*: enter current date

69. *Vaccine*: select vaccine

70. *Supply*: select supply option if more than one

71. *Pay Source*: select option

72. *Lot Data*: select appropriate lot if there is more than one option

73. Funding source, Lot Number, Lot expires on, Manufacturer, Dosage Amount, Dosage Unit will autofill

74. *VFC eligibility*: choose appropriate value

75. *Route*: select from dropdown

76. *Administration Site*: select from dropdown

77. *Administered by*: select from dropdown

78. *VIS given*: check correct VIS

79. Click *Create*

80. Click Send to Registry

81. Add Subsequent Vaccine if applicable:

82. Click *Additional Vaccination*

83. Administered on, VFC eligibility, Route and Administered by will auto populate

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84. *Vaccine*: select from dropdown
85. *Supply*: select supply if there is more than one option
86. *Pay source*: select from dropdown
87. *Lot Data*: select appropriate lot if there is more than one option
88. Funding source, Lot number, Lot expires on, Manufacturer, Dosage Amount and Dosage Unit will autofill
89. *Route*: select from dropdown
90. *Administration Site*: select from dropdown
91. *VIS given*: check appropriate VIS
92. Click Create
93. Click Send to Registry
94. Add Historical Vaccination if applicable
95. *Administered on*: enter appropriate date
96. *Doctor/Clinic/Source*: enter appropriate data
97. *Vaccine*: select from dropdown
98. Click Create
99. Click Send to Registry
100. Record screen shot of Nightingale Notes showing the data for the client once sent to the registry

Update Record:

Objective: This test assesses the ability of the EHR to send an update notification. **There may not be a production use case for updating a record. This test may be done in the staging environment which is a mirror of production but does not update production data.**

[Insert Client First Name, Last Name, and Client ID]

101. Enter Last Name, First Name; Click Search in Nightingale Notes
102. Identify the correct client in the client list
103. Click on their *Immunizations tab*
104. Locate a vaccine to update
105. Click the *Edit* icon
106. Make the update.
107. Click *Save*

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108. Record the screen showing the update was made.

Demographic Update Only

Objective: The EHR supports and sends updates to client demographics only via the HL7 message to the registry. **There may not be a production use case for updating a record. This test may be done in the staging environment which is a mirror of production but does not update production data.**

[Insert Client First Name, Last Name, and Client ID]

109. Enter Last Name, First Name; Click Search in Nightingale Notes
110. Identify the correct client in the client list
111. Click on *Client details*
112. Click *Name and Address* tab
113. Update or change address information
114. Click **Save**
115. Click on their *Immunizations tab*
116. Click the Edit symbol under Client details
117. Click Save
118. Log into your state immunization registry to see the changes made the address.
119. Record screen shot of your state immunization registry showing the address change

Sending and Receiving the Responsible Organization (MSH-22 and MSH-23)

Objective: The EHR supports 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

[Insert Client First Name, Last Name, and Client ID]

120. Enter Last Name, First Name; Click Search in Nightingale Notes

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121. Identify the correct client in the client list
122. Click on Details
123. Click on Health History
124. Under Birth History, select drop down for Multiple Birth and choose yes, the patient was part of a multiple birth
125. Enter in birth order
126. Click Save
127. Click on their Immunizations tab
128. Click the drop down for ***Patient Protection*** and select, ***No, do not protect the data (share)***.
129. Click Add Other Vaccination
130. *Administered on*: enter current date
131. *Vaccine*: select vaccine
132. *Supply*: select supply option if more than one
133. *Pay Source*: select option
134. *Lot Data*: select appropriate lot if there is more than one option
135. Funding source, Lot Number, Lot expires on, Manufacturer, Dosage Amount, Dosage Unit will autofill
136. *VFC eligibility*: choose appropriate value
137. *Route*: select from dropdown
138. *Administration Site*: select from dropdown
139. *Administered by*: select from dropdown
140. *VIS given*: check correct VIS
141. Click Create
142. Click Send to Registry
143. Add Subsequent Vaccine if applicable:
144. Click *Additional Vaccination*
145. Administered on, VFC eligibility, Route and Administered by will auto populate
146. *Vaccine*: select from dropdown
147. *Supply*: select supply if there is more than one option
148. *Pay source*: select from dropdown
149. *Lot Data*: select appropriate lot if there is more than one option

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150. Funding source, Lot number, Lot expires on, Manufacturer, Dosage Amount and Dosage Unit will autofill
151. *Route*: select from dropdown
152. *Administration Site*: select from dropdown
153. *VIS given*: check appropriate VIS
154. Click *Create*
155. Click Send to Registry
156. Add Historical Vaccination if applicable
157. *Administered on*: enter appropriate date
158. *Doctor/Clinic/Source*: enter appropriate data
159. *Vaccine*: select from dropdown
160. Click Create
161. Click Send to Registry
162. Log into your state immunization registry to see if the vaccinations just administered in Nightingale Notes are located in your registry with your agency name
163. Record screen shot of your state immunization registry showing the data for the client that was entered above

Fatal Error

Objective: Support for accepting an acknowledgement message with a fatal error being returned by the IIS and to display some notification to an end user. **There may not be a production use case for receiving a fatal error. This test may be done in the staging environment which is a mirror of production but does not update production data.**

[Insert Client First Name, Last Name, and Client ID]

164. Enter Last Name, First Name; Click Search in Nightingale Notes
165. Identify the correct client in the client list
166. Click on their Immunizations tab
167. Click the drop down for *Patient Protection* and select, *No, do not protect the data (share)*.
168. Click Add Other Vaccination
169. *Administered on*: enter current date

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170. *Vaccine*: select vaccine
171. *Supply*: select supply option if more than one
172. *Pay Source*: select option
173. *CPT code*: edit the code to 90710 (this code is for MMRV and is obviously an incorrect code); this will produce a fatal error returning from the registry
174. *Lot Data*: select appropriate lot if there is more than one option
175. Funding source, Lot Number, Lot expires on, Manufacturer, Dosage Amount, Dosage Unit will autofill
176. *VFC eligibility*: choose appropriate value
177. *Route*: select from dropdown
178. *Administration Site*: select from dropdown
179. *Administered by*: select from dropdown
180. *VIS given*: check correct VIS
181. Click Create
182. Click Send to Registry
183. Record screen shot of Nightingale Notes showing the data for the client once sent to the registry.

Soft Warning

Objective: This test assesses the ability of the EHR to accept an acknowledgement message with a soft error (warning) being returned by the IIS. **There may not be a production use case for receiving a soft warning. This test may be done in the staging environment which is a mirror of production but does not update production data.**

[Insert Client First Name, Last Name, and Client ID]

184. Enter Last Name, First Name; Click Search in Nightingale Notes
185. Identify the correct client in the client list
186. Click *Client details*
187. Click *Demographic* tab
188. Remove the fields *Race* and *Ethnicity* if completed
189. Click *Save*
190. Click on their Immunizations tab

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191. Click the drop down for *Patient Protection* and select, *No, do not protect the data (share)*.
192. Click Add Other Vaccination
193. *Administered on*: enter current date
194. *Vaccine*: select vaccine
195. *Supply*: select supply option if more than one
196. *Pay Source*: select option
197. *CPT code*: edit the code to 90710 (this code is for MMRV and is obviously an incorrect code); this will produce a fatal error returning from the registry
198. *Lot Data*: select appropriate lot if there is more than one option
199. Funding source, Lot Number, Lot expires on, Manufacturer, Dosage Amount, Dosage Unit will autofill
200. *VFC eligibility*: choose appropriate value
201. *Route*: select from dropdown
202. *Administration Site*: select from dropdown
203. *Administered by*: select from dropdown
204. *VIS given*: check correct VIS
205. Click Create
206. Click Send to Registry
207. Record screen shot of Nightingale Notes showing the data for the client once sent to the registry.

Multiple Soft Warnings

Objective: This test assesses the ability of the EHR to accept an acknowledgement message with multiple soft errors (warnings) being returned by the IIS. **There may not be a production use case for receiving multiple soft warnings. This test may be done in the staging environment which is a mirror of production but does not update production data.**

[Insert Client First Name, Last Name, and Client ID]

1. Enter Last Name, First Name; Click Search in Nightingale Notes
2. Identify the correct client in the client list
3. Click *Client details*
4. Click *Demographic* tab

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	<ol style="list-style-type: none">5. Remove the fields <i>Race</i> and <i>Ethnicity</i> if completed6. Click <i>Save</i>7. Click on their Immunizations tab8. Click the drop down for <i>Patient Protection</i> and select, <i>No, do not protect the data (share)</i>.9. Click Add Other Vaccination10. <i>Administered on</i>: enter current date11. <i>Vaccine</i>: select vaccine12. <i>Supply</i>: select supply option if more than one13. <i>Pay Source</i>: select option14. <i>CPT code</i>: edit the code to 90710 (this code is for MMRV and is obviously an incorrect code); this will produce a fatal error returning from the registry15. <i>Lot Data</i>: select appropriate lot if there is more than one option16. Funding source, Lot Number, Lot expires on, Manufacturer, Dosage Amount, Dosage Unit will autofill17. <i>VFC eligibility</i>: choose appropriate value18. <i>Route</i>: select from dropdown19. <i>Administration Site</i>: select from dropdown20. <i>Administered by</i>: select from dropdown21. <i>VIS given</i>: check correct VIS22. Edit the field <i>Funding Source</i> and choose <i>State funds</i> rather than <i>Public</i>23. Click Create24. Click Send to Registry25. Record screen shot of Nightingale Notes showing the data for the client once sent to the registry.
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1.2 Create forecast query messages and receive immunization history

<input type="checkbox"/>	<p>User identifies each patient record containing pre-loaded patient demographics, or input patient demographics:</p> <ul style="list-style-type: none">• Please list 3 patient records by client id to be included in the test
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- User generates the HL7 v2.5.1 Z44 QBP query message for each patient and captures screenshots.

Evaluated History and Forecast Group

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.

Forecasting and Vaccination History

Objectives: User tests the ability of the EHR to search for and receive vaccination forecasting and vaccination history.

[Insert Client First Name, Last Name, and Client ID]

1. Enter Last Name, First Name; Click Search in Nightingale Notes
2. Identify the correct client from the client list
3. Click on the *Immunizations tab*
4. View Vaccination History and Forecasting for client
5. Record screen shot of Nightingale Notes showing the data for the client once sent to the registry.

Query Client and No Record Found

Objectives: User tests the capability of the EHR to process a response message that returns no persons found and to provide an indication to the end user. **There may not be a production use case for receiving no record found message. This test may be done in the staging environment which is a mirror of production but does not update production data.**

[Insert Client First Name, Last Name, and Client ID]

1. Create new client in Nightingale Notes that does not exist in the immunization registry by clicking *New Client*
2. *Name and Address tab:* Add maximum information such as last name, first name, date of birth, address, city, state, zip, phone number, mother's name (first and last), race, ethnicity and next of kin if under the age of 18.
3. Click *Create*
4. Click on the *Immunizations tab*

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5. Record screen shot of Nightingale Notes showing the message that the client doesn't exist.

Query Client and Too Many Matches

Objectives: Test the capability of the EHR to process a response message that returns no persons found (too many matches) and to provide an indication to the end user. **There may not be a production use case for receiving too many matches found. This test may be done in the staging environment which is a mirror of production but does not update production data.**

[Insert Client First Name, Last Name, and Client ID]

1. Create new client in Nightingale Notes that does not exist in the immunization registry by clicking *New Client*
2. *Name and Address tab:* Add minimal information adding only last name, first name, and date of birth
3. Click *Create*
4. Click on the *Immunizations tab*
5. Record screen shot of Nightingale Notes showing the message that there are too many matches