# Test Criteria: 170.315.b.3 – Electronic Prescribing

|  |  |
| --- | --- |
| **Testing Result** |  |
| Participant and Product-with-version |  |
| Setting (Ambulatory or Inpatient) |  |
| Test Proctor |  |
| Test Date |  |
| Test Result | Pass:  Fail:  No Attempt: |
| Error Description (if applicable) |  |
| Modifications to Product Under Test |  |
| Additional Software Used |  |
| Additional Proctor Notes |  |

### Overview

In this document you will find:

* [Test Data and Test Tools](#_Test_Data_and)
* [Standards Support](#_Demonstrate_Standards_Support)
* [Drummond Test Report (Instructions, Expected Results, Points to Remember)](#_170.315(b)(3)_–_Electronic)
* [Test Procedures](#_Create_syndromic_surveillance)
* [Appendix A: Testing Guide](#_Appendix_A:_Testing_1)
* [Appendix B: ONC Criteria](#_Appendix_B:_ONC)

### Version of ONC Test Method

1.1

### Scope of Proctoring Sheet

The ONC test method associated with this criterion is the only approved test method for EHR Meaningful Use certification. This Proctoring Sheet is not a replacement test method but a test procedure document for performing the ONC test method and recording the results. Proctoring Sheet describe test data, test criteria and expected results. It is assumed the Health IT developer or Participant under Test is familiar with the associated ONC test method.

# Robustness and Reliability Requirement

To satisfy the module criteria, it is expected that the Product-Under-Test is able to complete the testing requirements reliably, including repeat testing with the same result without error, and with a satisfactory level of robustness. This includes unexpected error messages produced through normal operation, multiple unintended restarts of the application or any other “buggy” facets of the product displayed while testing. These errors are recorded in the Additional Proctor Notes of the proctor sheet. Lack of reliability and robustness of design will result in failure of the module.

# Test Data and Tools

|  |  |
| --- | --- |
| **Test Data Source:** | ONC-Supplied  DG-Supplied:  Developer-Supplied: |
| **Pre-Test Data Setup:**   * Health IT developer pre-loads Test Step 1 prescription data for each scenario from the [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home): * Change Prescription Tests (scenarios 1-5) * Cancel Prescription Tests (scenarios 1-4) * Refill Prescription Tests (scenarios 1-4) * If using automated transport with the NIST eRx Test Tool, provide your endpoints to Test Proctor prior to test event. | |
| **Test Data:**  ONC-supplied test data found within [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home). | |
| **Test Tools:**  [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home) | |

# Demonstrate Standards Support

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| --- | --- |
| **Test Result:** | PASS:  FAIL:  No Attempt: |
| **Instructions:** Implement standards below for e-Prescribing | |

|  |  |  |
| --- | --- | --- |
|  | **Standard** |  |
|  | §170.205(b)(2) | SCRIPT Standard, Implementation Guide, Version 10.6, October 2008. |
|  | §170.207(d)(3) | RxNorm, September 8, 2015 Full Release Update |

# 170.315(b)(3)(i) Electronic Prescribing: Change Prescription

|  |  |
| --- | --- |
| **Test Result:** | PASS:  FAIL:  No Attempt: |
| **Instructions:**  Based on the “Change Prescription Tests” section from the NIST eRx Test Tool, user must create, transmit and receive prescription-related transactions in accordance with SCRIPT 10.6 and RxNorm and using either EDI or XML format. | |
| **Expected Test Result:**   * Enable a user to perform the following prescription-related transactions in accordance with standard §170.205(b)(2), and at a minimum, the version of the standard specified at §170.207(d)(3) as follows: * **Create new prescription (NEWRX); and** * **Change prescriptions (RXCHG, CHGRES)**. * Transmit and receive the medication-associated diagnosis/reason for the prescription for each transaction listed above using ICD-10 coded data in the Diagnosis elements in the DRU segment. * OPTIONAL:Transmit and receive the reason for the prescription for each transaction listed above using the Indication elements in the SIG segment. * Limit a user’s ability to prescribe all oral liquid medications in only metric standard units of mL (i.e., not cc). * Enforce inserting leading zeroes at all times before the decimal point for amounts less than one. * Not allow trailing zeroes after a decimal point when a user prescribes a medication. | |
| **Points to Remember:**   * Within the [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home): * Use the [NIST eRx Normative Test Process Document](http://erx-2015.nist.gov/hit-base-tool/#/doc) for test tool procedures * The “Context-based” tab is required for testing and validation * See “Documentation” tab for additional resources * Vocabularies/value sets are accessible once a test step is loaded * The Test Scenarios and the Context-based feature in the NIST eRx Test Tool are tightly-coupled. In addition to validating message conformance, the test tool performs selective content validation based on the test data provided, and deviation from the test data may cause the test tool to issue Error notifications. For this reason, please use the test data as specified. * NIST eRx Tool supports Surescripts transport protocol. * Max field length tests within certain portions of the SCRIPT 10.6 standard will not be in scope for the purposes of 2015 edition testing. Errors received during testing related to the max field requirement can be treated as a warning. This does not remove the requirement from a surveillance perspective nor the general need for mandatory fields to be populated with data as required by the standard. | |

**Test Procedures**

### CHANGE PRESCRIPTION TESTS

**Complete this section (1.1) for each of the FIVE (5) eRx Test Scenarios**

|  |  |
| --- | --- |
|  | Health IT developer identifies patient records containing pre-loaded NEWRX prescription data for scenarios 1-5 (See “Change Prescription Tests” within [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home)). |
| **NIST eRx Test Tool: Test Step 1 - Create New Prescription (NEWRX)** | |
|  | As instructed in the [NIST eRx Normative Test Process Document](http://erx-2015.nist.gov/hit-base-tool/#/doc), user logs into health IT and generates new prescription (NEWRX) message beginning with scenario #1 and provides a copy of the message to the Proctor. |
|  | **NOTE: For scenario 3 (patient 12 – five year old child):**   * User will attempt to enter test data for an oral liquid medication other than “mL” (e.g., “cc” or “teaspoon”). Health IT module must prevent use of any unit of measure other than “mL”. * Demonstrate health IT module enforces leading zeroes before the decimal point for dosage amounts less than one (1) and prevents trailing zeroes after a decimal point for dosage amounts. *Note this can also be tested below for “Cancel Scenario 2”.* |
|  | Proctor validates the NEWRX messages using the NIST eRx Test Tool and performs visual inspection to verify health IT module transmits diagnosis element in the **DRU segment** using ICD-10 coding system. |
| **NIST eRx Test Tool: Test Step 2 – Pharmacy acknowledges receipt of message** | |
|  | Health IT module receives STATUS message acknowledging receipt and process message. A positive notification need not be visible in the system. If module is unable to process the message, this should be made visible. |

|  |  |
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| **NIST eRx Test Tool: Test Step 3 - Prescription Change Request (RXCHG)** | |
|  | Health IT module receives, processes, and displays the Rx Change Requests from Pharmacy (RXCHG). |
|  | Using the NIST Juror Document, proctor verifies health IT module processes the RXCHG message correctly and performs visual inspection to verify health IT module supports receiving diagnosis element in the **DRU segment** using ICD-10 coding system. |
| **NIST eRx Test Tool: Test Step 4 – Prescriber acknowledges receipt of (RXCHG)** | |
|  | Health IT module generates acknowledgement message for Change Requests from Pharmacy. |
|  | Proctor validates the acknowledgement message using the NIST eRx Tool. |
| **NIST eRx Test Tool: Test Step 5 - Prescription Change Response (CHGRES)** | |
|  | User records response and generates Change Prescription Response Message (CHGRES). |
|  | Proctor validates the CHGRES message using the NIST eRx Test Tool and performs visual inspection to verify health IT module transmits diagnosis element in the **DRU segment** using ICD-10 coding system. |
| **NIST eRx Test Tool: Test Step 6 – Pharmacy acknowledges receipt of (CHGRES)** | |
|  | Health IT module receives STATUS message acknowledging receipt and process message. A positive notification need not be visible in the system. If module is unable to process the message, this should be made visible. |
| **NIST eRx Test Tool: Test Step 7 - Prescription Fill Status (RXFILL)** | |
|  | Health IT module receives, processes, and displays Rx Fill Status (RXFILL) from Pharmacy. |
|  | Using the NIST Juror Document, proctor verifies health IT module processes RXFILL message correctly and performs visual inspection to verify health IT module supports receiving diagnosis element in the **DRU segment** using ICD-10 coding system. |
| **NIST eRx Test Tool: Test Step 8 – Prescriber acknowledges receipt of (RXFILL)** | |
|  | Health IT module generates acknowledgement for Fill Status Message. |
|  | Proctor validates the acknowledgement messages using the NIST eRx Tool. |

<INSERT SCREEN SHOTS - Scenario #1 NEWRX message validation>

<INSERT SCREEN SHOTS - Scenario #1 RXCHG received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #1 CHGRES message validation>

<INSERT SCREEN SHOTS - Scenario #1 RXFILL received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #2 NEWRX message validation>

<INSERT SCREEN SHOTS - Scenario #2 RXCHG received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #2 CHGRES message validation>

<INSERT SCREEN SHOTS - Scenario #2 RXFILL received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #3 additional test steps>

<INSERT SCREEN SHOTS - Scenario #3 NEWRX message validation>

<INSERT SCREEN SHOTS - Scenario #3 RXCHG received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #3 CHGRES message validation>

<INSERT SCREEN SHOTS - Scenario #3 RXFILL received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #4 NEWRX message validation>

<INSERT SCREEN SHOTS - Scenario #4 RXCHG received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #4 CHGRES message validation>

<INSERT SCREEN SHOTS - Scenario #4 RXFILL received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #5 NEWRX message validation>

<INSERT SCREEN SHOTS - Scenario #5 RXCHG received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #5 CHGRES message validation>

<INSERT SCREEN SHOTS - Scenario #5 RXFILL received and acknowledgement>

**1.2 OPTIONAL: Prescription Reason – SIG Segment**

|  |  |
| --- | --- |
|  | OPTIONAL: Using the indication elements in the SIG Segment for all transactions, Proctor verifies health IT module transmits and receives the reason for prescription.   * Population of individual fields in the message must match the coded test case values, and non-coded values (e.g., indication text) is confirmed by the juror to have the correct meaning (e.g., “oral route” would be an allowed variation if the test case value is “by mouth”) |
|  | OPTIONAL: Proctor inspects health IT module to verify its ability to support SNOMED CT coding system for the reason for prescription in the “indication” elements in the SIG segment. |

<INSERT SCREEN SHOTS>

# 170.315(b)(3)(ii) Electronic Prescribing: Cancel Prescription

|  |  |
| --- | --- |
| **Test Result:** | PASS:  FAIL:  No Attempt: |
| **Instructions:** Based on the “Cancel Prescription Tests” section from the NIST eRx Test Tool, user must create, transmit and receive prescription-related transactions in accordance with SCRIPT 10.6 and RxNorm and using either EDI or XML format. | |
| **Expected Test Result:**   * Enable a user to perform the following prescription-related transactions in accordance with standard §170.205(b)(2), and at a minimum, the version of the standard specified at §170.207(d)(3) as follows: * **Cancel prescriptions (CANRX, CANRES)**. * For the CANRX message: * Transmit and receive the reason for the prescription for each transaction listed above using ICD-10 coded data in the Diagnosis elements in the DRU segment. * OPTIONAL:Transmit and receive the reason for the prescription for each transaction listed above using the Indication elements in the SIG segment. | |
| **Points to Remember:**   * Within the [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home): * Use the [NIST eRx Normative Test Process Document](file:///C:\Users\Sonia\Downloads\NIST_eRx_Normative_Test_Process_Document%20(9).pdf) for test tool procedures * The “Context-based” tab is required for testing and validation * See “Documentation” tab for additional resources * Vocabularies/value sets are accessible once a test step is loaded. * Max field length tests within certain portions of the SCRIPT 10.6 standard will not be in scope for the purposes of 2015 edition testing. Errors received during testing related to the max field requirement can be treated as a warning. This does not remove the requirement from a surveillance perspective nor the general need for mandatory fields to be populated with data as required by the standard. | |

### 2.1 CANCEL PRESCRIPTION TESTS

**Complete this section (2.1) for each of the FOUR (4) eRx Test Scenarios**

|  |  |
| --- | --- |
|  | Health IT developer identifies patient records containing pre-loaded NEWRX prescription data for scenarios 1-4 (See “Cancel Prescription Tests” within [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home)). |
| **NIST eRx Test Tool: Test Step 1 – Prescriber Creates New Rx** | |
|  | As instructed in the [NIST eRx Normative Test Process Document](file:///C:\Users\Sonia\Downloads\NIST_eRx_Normative_Test_Process_Document%20(9).pdf), user logs into health IT and generates new prescription (NEWRX) message beginning with scenario #1 and provides copy of the message to the Proctor. |
|  | Proctor validates the NEWRX messages using the NIST eRx Test Tool and performs visual inspection to verify health IT module transmits diagnosis element in the **DRU segment** using ICD-10 coding system. |
| **NIST eRx Test Tool: Test Step 2 – Pharmacy sends STATUS message** | |
|  | Health IT module receives STATUS message acknowledging receipt and process message. A positive notification need not be visible in the system. If module is unable to process the message, this should be made visible. |
| **NIST eRx Test Tool: Test Step 3 – Prescriber sends (CANRX) message** | |
|  | User records response and generates Cancellation of New Prescription Messages (CANRX) and provides copy to Proctor. |
|  | Proctor validates the CANRX message using the NIST eRx Test Tool and performs visual inspection to verify health IT module transmits diagnosis element in the **DRU segment** using ICD-10 coding system. |
|  | OPTIONAL: Proctor performs visual inspection to verify health IT module supports ICD-10 coding system for the diagnosis element in the **SIG segment**. |
| **NIST eRx Test Tool: Test Step 4 – Pharmacy sends STATUS message** | |
|  | Health IT module receives STATUS message acknowledging receipt and processes message. A positive notification need not be visible in the system. If module is unable to process the message, this should be made visible. |
| **NIST eRx Test Tool: Test Step 5 - Cancel Prescription Response (CANRES)** | |
|  | Health IT module receives, processes, and displays the Cancellation Response (CANRES) from Pharmacy. |
|  | Using the NIST Juror Document, Proctor verifies health IT module processes the CANRES message correctly. |
| **NIST eRx Test Tool: Test Step 6 – Prescriber sends STATUS message** | |
|  | Health IT module generates acknowledgement message for Cancel Prescription Response and provides copy to Proctor. |
|  | Proctor validates the acknowledgement message using the NIST eRx Tool. |
|  | **NOTE: For Cancel Scenario 2:**   * Demonstrate health IT module enforces leading zeroes before the decimal point for dosage amounts less than one (1). * Demonstrate health IT module prevents trailing zeroes after a decimal point for dosage amounts for prescription-related electronic transactions. |

<INSERT SCREEN SHOTS - Scenario #1 NEWRX message validation>

<INSERT SCREEN SHOTS - Scenario #1 CANRX message validation>

<INSERT SCREEN SHOTS – Scenario #1 CANRES received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #2 NEWRX message validation>

<INSERT SCREEN SHOTS - Scenario #2 CANRX message validation>

<INSERT SCREEN SHOTS – Scenario #2 CANRES received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #3 NEWRX message validation>

<INSERT SCREEN SHOTS - Scenario #3 CANRX message validation>

<INSERT SCREEN SHOTS – Scenario #3 CANRES received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #4 NEWRX message validation>

<INSERT SCREEN SHOTS - Scenario #4 CANRX message validation>

<INSERT SCREEN SHOTS – Scenario #4 CANRES received and acknowledgement>

**2.2 OPTIONAL: Prescription Reason – SIG Segment**

|  |  |
| --- | --- |
|  | OPTIONAL: Using the indication elements in the SIG Segment for all transactions, Proctor verifies health IT module transmits and receives the reason for prescription.   * Population of individual fields in the message must match the coded test case values, and non-coded values (e.g., indication text) is confirmed by the juror to have the correct meaning (e.g., “oral route” would be an allowed variation if the test case value is “by mouth”) |
|  | OPTIONAL: Proctor inspects health IT module to verify its ability to support SNOMED CT coding system for the reason for prescription in the “indication” elements in the SIG segment. |

<INSERT SCREEN SHOTS>

# 170.315(b)(3)(iii) Electronic Prescribing: Refill Prescription

|  |  |
| --- | --- |
| **Test Result:** | PASS:  FAIL:  No Attempt: |
| **Instructions:** Based on the “Refill Prescription Tests” section from the NIST eRx Test Tool, user must create, transmit and receive prescription-related transactions in accordance with SCRIPT 10.6 and RxNorm and using either EDI or XML format. | |
| **Expected Test Result:**  Health IT module must:   * Enable a user to perform the following prescription-related transactions in accordance with standard §170.205(b)(2), and at a minimum, the version of the standard specified at §170.207(d)(3) as follows: * **Refill prescriptions (REFREQ, REFRES); and** * **Receive fill status notification (RXFILL)**. * Transmit and receive the reason for the prescription for each transaction listed above using ICD-10 coded data in the Diagnosis elements in the DRU segment. * OPTIONAL:Transmit and receive the reason for the prescription for each transaction listed above using the Indication elements in the SIG segment. * Limit a user’s ability to prescribe all oral liquid medications in only metric standard units of mL (i.e., not cc). | |
| **Points to Remember:**   * Within the [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home): * Use the [NIST eRx Normative Test Process Document](http://erx-2015.nist.gov/hit-base-tool/#/doc) for test tool procedures * The “Context-based” tab is required for testing and validation * See “Documentation” tab for additional resources * Vocabularies/value sets are accessible once a test step is loaded * Max field length tests within certain portions of the SCRIPT 10.6 standard will not be in scope for the purposes of 2015 edition testing. Errors received during testing related to the max field requirement can be treated as a warning. This does not remove the requirement from a surveillance perspective nor the general need for mandatory fields to be populated with data as required by the standard. | |

### 3.1 REFILL PRESCRIPTION TESTS

**Complete this section (3.1) for each of the FOUR (4) eRx Test Scenarios**

|  |  |
| --- | --- |
|  | Health IT developer identifies patient records containing pre-loaded NEWRX prescription data for scenarios 1-4 (See “Refill Prescription Tests” within [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home)). |
| **NIST eRx Test Tool: Test Step 1 – Prescriber creates (NEWRX) message** | |
|  | As instructed in the [NIST eRx Normative Test Process Document](file:///C:\Users\Sonia\Downloads\NIST_eRx_Normative_Test_Process_Document%20(9).pdf), user logs into health IT and generate new prescription (NEWRX) message beginning with scenario #1 and provides copy of the messages to the Proctor. |
|  | Proctor validates the NEWRX messages using the NIST eRx Test Tool and performs visual inspection to verify health IT module transmits diagnosis element in the **DRU segment** using ICD-10 coding system. |
| **NIST eRx Test Tool: Test Step 2 – Pharmacy acknowledges receipt of (NEWRX)** | |
|  | Health IT module receives STATUS message acknowledging receipt and process message. A positive notification need not be visible in the system. If module is unable to process the message, this should be made visible. |
| **NIST eRx Test Tool: Test Step 3 – Pharmacy sends Refill Request (REFREQ)** | |
|  | Health IT modules receives, processes, and displays Refill Request from Pharmacy (REFREQ). |
|  | Using the NIST Juror Document, proctor verifies health IT module processes the REFREQ messages correctly and performs visual inspection to verify health IT module supports receiving diagnosis element in the **DRU segment** using ICD-10 coding system. |
| **NIST eRx Test Tool: Test Step 4 – Prescriber acknowledges receipt of (REFREQ)** | |
|  | Health IT module generate acknowledgement for Refill Request and provides copy to Proctor. |
|  | Proctor validates the acknowledgement messages using the NIST eRx Tool. |
| **NIST eRx Test Tool: Test Step 5 – Prescriber sends Refill Response (REFRES)** | |
|  | User records response and generates Refill Response Message (REFRES) and provides copy to Proctor. |
|  | Proctor validates the REFRES message using the NIST eRx Test Tool and performs visual inspection to verify health IT module transmits diagnosis element in the **DRU segment** using ICD-10 coding system. |
| **NIST eRx Test Tool: Test Step 6 – Pharmacy acknowledges receipt of (REFRES)** | |
|  | Health IT module receives STATUS message acknowledging receipt and process message. A positive notification need not be visible in the system. If module is unable to process the message, this should be made visible. |
|  | OPTIONAL: Proctor performs visual inspection to verify health IT module supports ICD-10 coding system for the diagnosis element in the **SIG segment**. |

<INSERT SCREEN SHOTS - Scenario #1 NEWRX message validation>

<INSERT SCREEN SHOTS – Scenario #1 REFREQ received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #1 REFRES message validation>

<INSERT SCREEN SHOTS - Scenario #2 NEWRX message validation>

<INSERT SCREEN SHOTS – Scenario #2 REFREQ received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #2 REFRES message validation>

<INSERT SCREEN SHOTS - Scenario #3 NEWRX message validation>

<INSERT SCREEN SHOTS – Scenario #3 REFREQ received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #3 REFRES message validation>

<INSERT SCREEN SHOTS - Scenario #4 NEWRX message validation>

<INSERT SCREEN SHOTS – Scenario #4 REFREQ received and acknowledgement>

<INSERT SCREEN SHOTS - Scenario #4 REFRES message validation>

**3.2 OPTIONAL: Prescription Reason – SIG Segment**

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| --- | --- |
|  | OPTIONAL: Using the indication elements in the SIG Segment for all transactions, Proctor verifies health IT module transmits and receives the reason for prescription.   * Population of individual fields in the message must match the coded test case values, and non-coded values (e.g., indication text) is confirmed by the juror to have the correct meaning (e.g., “oral route” would be an allowed variation if the test case value is “by mouth”) |
|  | OPTIONAL: Proctor inspects health IT module to verify its ability to support SNOMED CT coding system for the reason for prescription in the “indication” elements in the SIG segment. |

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# 170.315(b)(3)(iv) Electronic Prescribing: Medication History

|  |  |
| --- | --- |
| **Test Result:** | PASS:  FAIL:  No Attempt: |
| **Instructions:** Based on the “Medication History Tests” section from the NIST eRx Test Tool, user must create, transmit and receive medication history transactions using either the Pharmacy Benefit Manager (PBM) **or** Pharmacy scenarios. | |
| **Expected Test Result:**   * Enable a user to perform the following prescription-related transactions in accordance with standard §170.205(b)(2), and at a minimum, the version of the standard specified at §170.207(d)(3) as follows: * **Request and receive medication history (RXHREQ, RXHRES)**. * Medication history may be requested from either the Pharmacy Benefit Manager (PBM) or the Pharmacy. * For RXHRES message: * Transmit and receive the reason for the prescription for each transaction listed above using ICD-10 coded data in the Diagnosis elements in the DRU segment. * OPTIONAL:Transmit and receive the reason for the prescription for each transaction listed above using the Indication elements in the SIG segment. | |
| **Points to Remember:**   * Within the [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home): * Use the [NIST eRx Normative Test Process Document](file:///C:\Users\Sonia\Downloads\NIST_eRx_Normative_Test_Process_Document%20(9).pdf) for test tool procedures * The “Context-based” tab is required for testing and validation * See “Documentation” tab for additional resources * Vocabularies/value sets are accessible once a test step is loaded * Max field length tests within certain portions of the SCRIPT 10.6 standard will not be in scope for the purposes of 2015 edition testing. Errors received during testing related to the max field requirement can be treated as a warning. This does not remove the requirement from a surveillance perspective nor the general need for mandatory fields to be populated with data as required by the standard. | |

### 4.1 MEDICATION HISTORY TESTS

**Complete this section (4.1) for each of the THREE (3) eRx Test Scenarios** using either *Pharmacy Benefit Manager (PBM) scenarios* or *Pharmacy Scenarios*

|  |  |
| --- | --- |
|  | Health IT developer informs Proctor whether Pharmacy Benefit Manager (PBM) or Pharmacy scenarios will be used for testing and identifies patient records containing pre-loaded Medication History data for scenarios 1-3 (See “Medication History Tests” within [NIST eRx Test Tool](https://erx-2015.nist.gov/hit-base-tool/#/home)). |
| **NIST eRx Test Tool: Test Step 1 - Medication History Request (RXRHQ)** | |
|  | As instructed in the [NIST eRx Normative Test Process Document](http://erx-2015.nist.gov/hit-base-tool/#/doc), user logs into health IT and generates Medication History Request (RXRHQ) message beginning with scenario #1 and provides copy of message to the Proctor. |
|  | Proctor validates the RXRHQ messages using the NIST eRx Test Tool. |
| **NIST eRx Test Tool: Test Step 2 – Medication History Response (RXHRES)** | |
|  | Health IT module receives, processes, and displays Medication History Responses (RXHRES). |
|  | Using the NIST Juror Document, Proctor verifies health IT module processes the RXHRES messages correctly and performs visual inspection to verify health IT module supports receiving diagnosis element in the **DRU segment** using ICD-10 coding system. |

<INSERT SCREEN SHOTS - Scenario #1 RXRHQ message validation>

<INSERT SCREEN SHOTS - Scenario #1 RXHRES received>

<INSERT SCREEN SHOTS - Scenario #2 RXRHQ message validation>

<INSERT SCREEN SHOTS - Scenario #2 RXHRES received>

<INSERT SCREEN SHOTS - Scenario #3 RXRHQ message validation>

<INSERT SCREEN SHOTS - Scenario #3 RXHRES received>

**4.2 OPTIONAL: Prescription Reason – SIG Segment**

|  |  |
| --- | --- |
|  | OPTIONAL: Using the indication elements in the SIG Segment for all transactions, Proctor verifies health IT module transmits and receives the reason for prescription.   * Population of individual fields in the message must match the coded test case values, and non-coded values (e.g., indication text) is confirmed by the juror to have the correct meaning (e.g., “oral route” would be an allowed variation if the test case value is “by mouth”) |
|  | OPTIONAL: Proctor inspects health IT module to verify its ability to support SNOMED CT coding system for the reason for prescription in the “indication” elements in the SIG segment. |

<INSERT SCREEN SHOTS>

# Appendix A: Testing Guide

*This appendix contains more details and background on the testing requirements, including explanation on underlying standards, notable issues and best practice suggestions.*

Rev 01-Oct-2016 Additions

* The health IT module may substitute the ICD-10 code generated in a message as long as it is a valid code for a data item (e.g., diagnosis) even though it is different from the ICD-10 code provided for that data item in the test data for that message. The Test Proctor can permit an exception if an error results.

Rev 01-Mar-2016 Additions

* Many data elements in the implementation profile guide are identified with an RE usage (Required-but may be empty if unknown). Per the interpretation of the test tool developers, RE usage indicates that EHR implementations must be capable of supporting such elements and must populate them if the information is known. As part of the test story/test data, ONC has made the elements known. Therefore, the EHRs are required to demonstrate that they support these elements and shall send such data when received/known. This is how the test tool validates messages in Context-based validations.
* With the exception of which test data elements might be required, this certification criterion applies equally to both inpatient and ambulatory settings.
* Health IT Modules can present for certification to a more recent version of RxNorm than the September 8, 2015 Release per ONC’s policy that permits certification to a more recent version of certain vocabulary standards.
* RxNorm concept unique identifiers (RXCUIs) are expected to be used as drug qualifiers.

# Appendix B: ONC Criteria and Standards

*This appendix contains copy of the relevant ONC criteria and standards for this proctor sheet as a reference. In the event of a discrepancy with the ONC Final Rule, the ONC Final Rule takes precedence.*

**§170.315(f)(2) Transmission to Public Agencies – Syndromic Surveillance**

Technology must be able to create syndrome-based public health surveillance information for electronic transmission to public health agencies.

**§170.205(d)(4).** Standard. HL7 2.5.1 (incorporated by reference in §170.299). Implementation specifications. PHIN Messaging Guide for Syndromic Surveillance: Emergency Department, Urgent Care, Inpatient and Ambulatory Care Settings, Release 2.0, April 2015 and Erratum to the CDC PHIN 2.0 Implementation Guide, August 2015; Erratum to the CDC PHIN 2.0 Messaging Guide, April 2015 Release for Syndromic Surveillance: Emergency Department, Urgent Care, Inpatient and Ambulatory Care Settings.

# Change Log

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| Revision | Change Description |
| 01-Dec-2016 | Identified Cancel Scenario 2 for testing leading and trailing zeroes. |
| 01-Oct-2016 | Condensed test procedures for each section to enhance testing. Removed option for diagnosis in SIG segment. Added optional SIG Reason test procedure under each section. Added clarification regarding max field lengths. Clarified ICD-10 coding substitution under Appendix A. |
| 01-July-2016 | Updated hyperlinks for NIST eRx Test Tool. Corrected test step under section 3.1 to “See Refill Prescription Tests”. |
| 01-May-2016 | Added statement acknowledging NIST eRx test tool now supports Surescripts protocol. Removed reference to “leading and trailing zeroes” under Cancel Prescription and Medication History. |
| 01-Apr-2016 | Added test step “Support for ICD-10 - Diagnosis” to sections  (ii)-(iv). |
| 01-Mar-2016 | Initial Release. |
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**About Drummond Group LLC**

Drummond Group LLC is a global software test and certification lab that serves a wide range of vertical industries.  In healthcare, Drummond Group tests and certifies Controlled Substance Ordering Systems (CSOS), Electronic Prescription of Controlled Substances (EPCS) software and processes, and Electronic Health Records (EHRs) – designating the trusted test lab as the only third-party certifier of all three initiatives designed to move the industry toward a digital future. Founded in 1999, and accredited for the Office of the National Coordinator Health IT Certification Program as an Authorized Certification Body (ACB) and an Authorized Test Lab (ATL), Drummond Group continues to build upon its deep experience and expertise necessary to deliver reliable and cost-effective services. For more information, please visit <http://www.drummondgroup.com> or email [ehr@drummondgroup.com](mailto:ehr@drummondgroup.com)

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