

2015 Edition §170.315(b)(3) Electronic Prescribing				
Testing Components:				
				ONC Supplied Test Data
Test Procedure Version 1.1 – Last Updated 9/26/16				

Please consult the Final Rule entitled: *2015 Edition Health Information Technology (Health IT) Certification Criteria, 2015 Edition Base Electronic Health Record (EHR) Definition, and ONC Health IT Certification Program Modifications* for a detailed description of the certification criterion with which these testing steps are associated. We also encourage developers to consult the Certification Companion Guide in tandem with the test procedure as they provide clarifications that may be useful for product development and testing.

Note: The order in which the test steps are listed reflects the sequence of the certification criterion and does not necessarily prescribe the order in which the test should take place.

Required Tests

(b)(3) Electronic prescribing

(i) Enable a user to perform all the following prescription-related electronic transactions in accordance with the standards specified at § 170.205(b)(2), and, at a minimum, the version of the standard specified in § 170.207(d)(3), as follows:

- (A) Create new prescriptions (NEWRX);
- (B) Change prescriptions (RXCHG, CHGRES);
- (C) Cancel prescriptions (CANRX, CANRES);
- (D) Refill prescriptions (REFREQ, REFRES);
- (E) Receive fill status notifications (RXFILL);
- (F) Request and receive medication history information (RXHREQ, RXHRES).

Standard(s): §170.205(b)(2) - [SCRIPT Standard, Implementation Guide, Version 10.6, October, 2008](#)

§170.207(d)(3) - RxNorm, September 8, 2015 Full Release Update; available at: <http://www.nlm.nih.gov/research/umls/rxnorm/docs/rxnormfiles.html>

Test Tool and Test Data: [NIST eRx Test Tool](#)

[Normative Test Process Document](#)

[2015 Edition Testing Scope Information: See Appendix A](#)

Criteria ¶	System Under Test	Test Lab Verification
(i)(A)-(E)	<ol style="list-style-type: none"> 1. The user performs “Change Prescription and Receive Fill Status Notifications Scenario” in the NIST Normative Test Process Document, which tests (i)(A) create new prescription (NEWRX), (i)(B) change prescription transactions (RXCHG, CHGRES), and (i)(E) fill status notification (RXFILL). 2. The user performs “Cancel Prescription Scenario” in the NIST Normative Test Process Document, which tests (i)(A) create new prescription (NEWRX) and (i)(C) cancel prescription transactions (CANRX, CANRES). 3. The user performs “Refill Prescription Scenario” in the Normative Test Process Document, which tests (i)(A) create new prescription (NEWRX) and (i)(D) refill prescription transactions (REFREQ, REFRES). 	<ol style="list-style-type: none"> 1. The tester verifies that the Health IT Module receives and sends the following transactions using the “Change Prescription and Receive Fill Status Notifications Scenario” of the Normative Test Process Document, and completes ALL required test tool interaction steps and verifies the validation reports for the following required transactions in the scenario: <ul style="list-style-type: none"> • Create New Prescription (NEWRX); • Change Request (RXCHG); • Change Response (CHGRES); and • Fill Status Notification (RXFILL). 2. The tester verifies that the Health IT Module receives and sends the following transactions using the “Cancel Prescription Scenario” of the Normative Test Process Document and completes ALL required test tool interaction steps and verifies the validation reports for the following required transactions in the scenario: <ul style="list-style-type: none"> • Create New Prescription (NEWRX); • Cancel Request (CANRX); and • Cancel Response (CANRES). 3. The tester verifies that the Health IT Module receives and sends the following transactions using the “Refill Prescription Scenario” of the Normative Test Process Document and completes ALL required test tool interaction steps and verifies the validation reports for the following required transactions in the scenario: <ul style="list-style-type: none"> • Create New Prescription (NEWRX); • Refill Request (REFREQ); and • Refill Response (REFRES).

Criteria ¶	System Under Test	Test Lab Verification
(i)(F)	The user performs “Medication History Request Scenario” in the Normative Test Process Document, which tests medication history (i)(F) prescription transactions (RXHREQ, RXHRES).	The tester verifies that the Health IT Module receives and sends the following transactions using the “Medication History Request Scenario” of the Normative Test Process Document, and completes ALL required test tool interaction steps and verifies the validation reports for the following required transactions in the scenario: <ul style="list-style-type: none"> • Medication History Request (RXHREQ); and • Medication History Response (RXHRES).

(ii) Transmit and receive the reason for the prescription.

Evaluate the Health IT Module’s ability to transmit and receive the reason for the prescription for each transaction listed in paragraph (b)(3)(i) of this section using the Diagnosis elements in DRU Segment.

Standard(s): §170.205(b)(2) - [SCRIPT Standard, Implementation Guide, Version 10.6, October, 2008](#)

Test Tool and Test Data: [NIST eRx Test Suite](#)

[Normative Test Process Document](#)

Criteria ¶	System Under Test	Test Lab Verification
(ii)	The Health IT Module is able to transmit and receive the reason for the prescription using the Diagnosis elements in the DRU Segment for all transactions: <ul style="list-style-type: none"> (A) Create new prescriptions (NEWRX); (B) Change prescriptions (RXCHG, CHGRES); (C) Cancel prescriptions (CANRX); (D) Refill prescriptions (REFREQ, REFRES); (E) Receive fill status notifications (RXFILL); and (F) Receive medication history information (RXHRES). 	The tester verifies that the Health IT Module transmits and receives the reason for the prescription using the Diagnosis elements in the DRU Segment for all transactions, using the Normative Test Process Document and test data specified with the selected test case via the test tool: <ul style="list-style-type: none"> (A) Create new prescriptions (NEWRX); (B) Change prescriptions (RXCHG, CHGRES); (C) Cancel prescriptions (CANRX); (D) Refill prescriptions (REFREQ, REFRES); (E) Receive fill status notifications (RXFILL); and (F) Receive medication history information (RXHRES).

(iii) Optionally, For each transition listed in paragraph (b)(3)(i) of this section, the technology must be able to receive and transmit the reason for the prescription using the indication elements in the SIG Segment.

Standard(s): §170.205(b)(2) - [SCRIPT Standard, Implementation Guide, Version 10.6, October, 2008](#)

Test Tool and Test Data: [NIST eRx Test Tool](#)

[Normative Test Process Document](#)

Criteria ¶	System Under Test	Test Lab Verification
(iii) (Optional)	The Health IT Module transmits and receives the reason for the prescription using the Indication elements in the SIG Segment for all transactions.	The tester verifies that the Health IT Module transmits and receives the reason for the prescription using the Indication elements in the SIG Segment for all transactions using the Normative Test Process Document and test data specified with the selected test case via the test tool.

(iv) Limit a user's ability to prescribe all oral liquid medications in only metric standard units of mL (i.e., not cc).

Evaluate the Health IT Module's ability to enable a user to prescribe all oral liquid medications in only metric standard units, i.e. mL.

Standard(s): §170.205(b)(2) - [SCRIPT Standard, Implementation Guide, Version 10.6, October, 2008](#)

Test Tool and Test Data: [NIST eRx Test Tool](#)

[Normative Test Process Document](#)

Criteria ¶	System Under Test	Test Lab Verification
(iv)	<ol style="list-style-type: none"> The user is able to prescribe all oral liquid medications in only the metric standard, i.e. milliliter (mL). Negative Testing: The user attempts to prescribe an oral liquid medication using non-metric standard units. 	<ol style="list-style-type: none"> The tester uses the Normative Test Description section of the Normative Test Process Document to verify that users are able to prescribe all oral liquid medications in only the metric standard, i.e. milliliter (mL). Negative Testing: The tester uses the Normative Test Process Document to verify through Visual Inspection of the system under test that users are not able to prescribe oral liquid medications using non-metric standard units, i.e. cc, teaspoon.

(v) Always insert leading zeroes before the decimal point for amounts less than one and must not allow trailing zeroes after a decimal point when a user prescribes medications.

Evaluate the Health IT Module's ability to always insert leading zeroes before the decimal point for amounts less than one and must not allow trailing zeroes after a decimal point when a user prescribes medications.

Standard(s): §170.205(b)(2) - [SCRIPT Standard, Implementation Guide, Version 10.6, October, 2008](#)

Test Tool and Test Data: [NIST eRx Test Tool](#)

[Normative Test Process Document](#)

Criteria ¶	System Under Test	Test Lab Verification
(v)	<ol style="list-style-type: none"> 1. The Health IT Module inserts leading zeroes before the decimal point for all amounts less than one when a user prescribes medication. 2. The Health IT Module does not allow trailing zeroes after a decimal point when a user prescribes medication. 	<ol style="list-style-type: none"> 1. The tester uses the Normative Test Description scenario of the Normative Test Process Document to verify through Visual Inspection of the system under test that leading zeroes are inserted before the decimal point for all amounts less than one when a user prescribes medication. 2. The tester verifies through Visual Inspection of the system under test that there are no trailing zeroes after a decimal point when a user prescribes medication.

Document History

Version Number	Description of Change	Date
1.0	Final Test Procedure	January 20, 2016
1.1	Added testing scope information for max field validation (Appendix A)	September 26, 2016

Dependencies: For all related and required criteria, please refer to the [Master Table of Related and Required Criteria](#).

Appendix A

Upon ONC Health IT Certification Program review, 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, the errors outlined below should be observed as a warning(s).

This does not remove the general need for mandatory fields to be populated with data as required by the standard. Please consult NCPDP to engage in further dialogue regarding its standard's interpretive requirements.

Change Scenario 3 - All Messages

Type	Segment	Field	Error
EDI	Pharmacy (PVD+P2)	Party Name (Last Name)	PVD[1]-5[1].1 PVDPC-Party_Name.[1].5[1] - Expected element - Party_Name does not match 'HoitzThisIsAReallyLongLastNameABCDE'
	Pharmacy (PVD+P2)	Street (Address1)	PVDP2-Street.8[1].8[1].1[1] - Expected element - Street does not match '56789 Long Pharmacy Name for 10.6MU'
	Pharmacy (PVD+P2)	City	PVDPC-City.[1].8[1] - Expected element - City does not match 'ReallyLongCityNameForTerryHoitz123'
	Pharmacy (PVD+P2)	Communication_Nmbr (Phone)	PVDP2-Communication_Nmbr.8[1].9[1].1[1] - Expected element - Communication_Nmbr does not match '3102073105x123456789'
	Patient (PTT)	Party Name (Last Name)	PTT-Party_Name.[1].3[1] - Expected element - Party_Name does not match 'MYLONGLASTNAMEISCRAZYATTHISMANYCHAR'
	Patient (PTT)	First Name	PTT-First_Name.[1].3[1] - Expected element - First_Name does not match 'BOBZIMBABWAYALPHAPAINUBERDOOBERNAME'
XML	Pharmacy	StoreName	The value of /Message/Body/NewRx/Pharmacy/StoreName shall be set to '10Dot6 Pharmacy Store1 MU Long Name' (case insensitive). (Current value: ' 10Dot6 Pharmacy Store1 MU Long Na ')
	Pharmacy	Address/AddressLine1	The value of /Message/Body/NewRx/Pharmacy/Address/AddressLine1 shall be set to '56789 Long Pharmacy Name for 10.6MU' (case insensitive). (Current value: ' 56789 Long Pharmacy Name for 10.6 ')
	Pharmacy	Pharmacy/Address/City	The value of /Message/Body/NewRx/Pharmacy/Address/City shall be set to 'ReallyLongCityNameForPharmacy 106MU' (case insensitive). (Current value: ' ReallyLongCityNameForPharmacy 1 ')

Type	Segment	Field	Error
XML, con't.	Pharmacy	CommunicationNumbers/ Communication/Number	The value of /Message/Body/NewRx/ Pharmacy/ CommunicationNumbers/Communication/Number shall be set to '3102073105x123456789' (case insensitive). (Current value: ' 3102073105x123456789 ')
	Patient	Patient/Name/LastName	The value of /Message/Body/NewRx/Patient/Name/LastName shall be set to 'MYLONGLASTNAMEISCRAZYATTHISMANYCHAR' (case insensitive). (Current value: ' MYLONGLASTNAMEISCRAZYATTHISMANYCHA ')
	Patient	Patient/Name/FirstName	The value of /Message/Body/NewRx/Patient/Name/FirstName shall be set to 'BOBZIMBABWAYALPHAPAINUBERDOOBERNAME' (case insensitive). (Current value: ' BOBZIMBABWAYALPHAPAINUBERDOOBERNAM ')

Refill Scenario 2 - All Messages

Type	Segment	Field	Error
EDI	Pharmacy (PVD+P2)	Party Name (Last Name)	PVD[1]-5[1].1 PVDPC-Party_Name.[1].5[1] - Expected element - Party_Name does not match 'HoitzThisIsAReallyLongLastNameABCDE'
	Pharmacy (PVD+P2)	Street (Address1)	PVDP2-Street.8[1].8[1].1[1] - Expected element - Street does not match '56789 Long Pharmacy Name for 10.6MU'
	Pharmacy (PVD+P2)	City	PVDPC-City.[1].8[1] - Expected element - City does not match 'ReallyLongCityNameForTerryHoitz123'
	Pharmacy (PVD+P2)	Communication _Nmbr (Phone)	PVDP2-Communication_Nmbr.8[1].9[1].1[1] - Expected element - Communication_Nmbr does not match '3102073105x123456789'
	Patient (PTT)	Party Name (Last Name)	PTT-Party_Name.[1].3[1] - Expected element - Party_Name does not match 'MYLONGLASTNAMEISCRAZYATTHISMANYCHAR'
	Patient (PTT)	First Name	PTT-First_Name.[1].3[1] - Expected element - First_Name does not match 'BOBZIMBABWAYALPHAPAINUBERDOOBERNAME'

Type	Segment	Field	Error
XML	Pharmacy	StoreName	The value of /Message/Body/NewRx/Pharmacy/StoreName shall be set to '10Dot6 Pharmacy Store1 MU Long Name' (case insensitive). (Current value: ' 10Dot6 Pharmacy Store1 MU Long Na ')
	Pharmacy	Address/AddressLine1	The value of /Message/Body/NewRx/Pharmacy/Address/AddressLine1 shall be set to '56789 Long Pharmacy Name for 10.6MU' (case insensitive). (Current value: ' 56789 Long Pharmacy Name for 10.6 ')
	Pharmacy	Pharmacy/Address/City	The value of /Message/Body/NewRx/Pharmacy/Address/City shall be set to 'ReallyLongCityNameForPharmacy 106MU' (case insensitive). (Current value: ' ReallyLongCityNameForPharmacy 1 ')
	Pharmacy	Communication Numbers/Communication/Number	The value of /Message/Body/NewRx/ Pharmacy/ CommunicationNumbers/Communication/Number shall be set to '3102073105x123456789' (case insensitive). (Current value: ' 3102073105x123456789 ')
	Patient	Patient/Name/LastName	The value of /Message/Body/NewRx/Patient/Name/LastName shall be set to 'MYLONGLASTNAMEISCRAZYATTHISMANYCHAR' (case insensitive). (Current value: ' MYLONGLASTNAMEISCRAZYATTHISMANYCHA ')
	Patient	Patient/Name/FirstName	The value of /Message/Body/NewRx/Patient/Name/FirstName shall be set to 'BOBZIMBABWAYALPHAPAINUBERDOOBERNAME' (case insensitive). (Current value: ' BOBZIMBABWAYALPHAPAINUBERDOOBERNAM ')

Medication History Scenario 3 (Both Pharmacy and PBM): - All Messages

Type	Segment	Field	Error
EDI	Patient (PTT)	Party Name (Last Name)	PTT-Party_Name.[1].3[1] - Expected element - Party_Name does not match 'MYLONGLASTNAMEISCRAZYATTHISMANYCHAR'
	Patient (PTT)	First Name	PTT-First_Name.[1].3[1] - Expected element - First_Name does not match 'BOBZIMBABWAYALPHAPAINUBERDOOBERNAME'

Type	Segment	Field	Error
XML	Patient	Patient/Name/LastName	The value of /Message/Body/NewRx/Patient/Name/LastName shall be set to 'MYLONGLASTNAMEISCRAZYATTHISMANYCHAR' (case insensitive). (Current value: 'MYLONGLASTNAMEISCRAZYATTHISMANYCHA')
	Patient	Patient/Name/FirstName	The value of /Message/Body/NewRx/Patient/Name/FirstName shall be set to 'BOBZIMBABWAYALPHAPAINUBERDOOBERNAME' (case insensitive). (Current value: 'BOBZIMBABWAYALPHAPAINUBERDOOBERNAM')