

Test Procedure for §170.302 (h) Generate patient lists

This document describes the draft test procedure for evaluating conformance of complete EHRs or EHR modules to the certification criteria defined in 45 CFR Part 170 Subpart C of the Interim Final Rule (IFR) as published in the Federal Register on January 13, 2010. The document is organized by test procedure and derived test requirements with traceability to the normative certification criteria as described in the Overview document located at http://healthcare.nist.gov/docs/TestProcedureOverview_v1.pdf. These test procedures will be updated to reflect the certification criteria defined in the ONC Final Rule.

CERTIFICATION CRITERIA

§170.302 (h) Generate patient lists. Enable a user to electronically select, sort, retrieve, and output a list of patients and patients' clinical information, based on user-defined demographic data, medication list, and specific conditions.

INFORMATIVE TEST DESCRIPTION

This section provides an informative description of how the test procedure is organized and conducted. It is not intended to provide normative statements of the certification requirements.

This test evaluates the capability for a Complete EHR or EHR Module¹ to enable a user to electronically select, sort, retrieve, and output lists of patients displaying their clinical information, utilizing user-defined demographic data, medication list, and patient problems. Output formats are evaluated in terms of online display, printed document or electronic file. Other forms of output are not considered within the scope of this criteria. The Vendor supplies the test data for this test.

This test procedure is organized into three sections:

- Select - evaluates the capability to select patient lists that display the patients' clinical information
 - The Tester selects two or more patient lists that display the patients' clinical information
- Sort and Retrieve – evaluates the capability to electronically retrieve and organize patient lists that contain the patients' clinical information, utilizing user-defined demographic data, medication list, and patient problems
 - The Tester sorts patient lists that contain the patients' clinical information, utilizing user-defined demographic data, medication list, and patient problems
 - The Tester retrieves and displays patient lists that contain the patients' clinical information, utilizing user-defined demographic data, medication list, and patient problems
 - The Tester validates that the displayed lists contain the patients' clinical information, are displayed and sorted according to the user-defined the demographic data, medication list, and patient problems, and are accurate and complete

¹ Department of Health and Human Services, 45 CFR Part 170 Proposed Establishment of Certification Programs for Health Information Technology, Proposed Rule, March 10, 2010.

- **Output** – evaluates the capability to output the selected, sorted and retrieved patient lists containing the patients’ clinical information, utilizing user-defined demographic data, medication list, and patient problems
 - The Tester displays patient lists from the Select and Sort and Retrieve tests that contain the patients’ clinical information, utilizing user-defined demographic data, medication list, and patient problems
 - The Tester outputs the displayed patient lists
 - The Tester validates that the displayed patient lists can be generated as an online display, printed document or electronic file

REFERENCED STANDARDS

None

NORMATIVE TEST PROCEDURES

Derived Test Requirements

DTR170.302.h – 1: Electronically Select Patient Lists

DTR170.302.h – 2: Electronically Sort and Retrieve Patient Lists

DTR170.302.h – 3: Electronically Output Patient Lists

DTR170.302.h – 1: Electronically Select Patient Lists

Required Vendor Information

VE170.302.h – 1.01: Vendor shall identify the types of patient lists available for this test

VE170.302.h - 1.02: Vendor shall provide the test data for this test

VE170.302.h – 1.03: Vendor shall identify the EHR function(s) that are available to: 1) select patient lists that contain patients’ clinical information, utilizing user-defined demographic data, medication list, and patient problems, 2) sort and retrieve patient lists that contain patients’ clinical information, utilizing user-defined demographic data, medication list, and patient problems, and 4) output patient lists that contain patients’ clinical information, utilizing user-defined demographic data, medication list, and patient problems

Required Test Procedure:

TE170.302.h – 1.01: Using the EHR function(s) identified by the Vendor, the Tester shall select two or more patient lists that contain patients’ clinical information and utilize user-defined demographic data, medication list, and specific conditions

TE170.302.h – 1.02: Using the NIST-supplied Inspection Test Guide, the Tester shall verify that the selected patient lists are displayed and contain the patients’ correct clinical information and utilize user-defined demographic data, medication list, and patient problems

Inspection Test Guide

IN170.302.h – 1.01: Tester shall verify that patient lists based on user defined patient demographics, medication list, and patient problems can be selected. Examples of patient lists include those based on patient name, patient age, patient location, patient problem, patients taking specific medication, list of patients <12 years old, with Asthma, and who take fluticasone, list of patients < 50 years old, with Hypertension, and who take lisinopril

DTR170.302.h – 2: Electronically Sort and Retrieve Patient Lists

Required Vendor Information

- As defined in DTR170.302.h – 1, no additional information is required

Required Test Procedure:

TE170.302.h – 2.01: Using the EHR function(s) identified by the Vendor, the Tester shall sort patient lists that contain patients' clinical information, utilizing user-defined patient demographics, medication list, and patient problems

TE170.302.h – 2.02: Using the EHR function(s) identified by the Vendor, the Tester shall retrieve and display patient lists that contain patients' clinical information, utilizing user-defined demographics, medications, and patient problems

TE170.302.h – 2.03: Using the NIST-supplied Inspection Test Guide, the Tester shall verify that the patient lists contain patients' clinical information, are sorted and displayed correctly according to the user-defined demographic data, medication list, and patient problems, and are accurate and complete

Inspection Test Guide:

IN170.302.h – 2.01: Tester shall verify that the retrieved patient lists contain correct patient clinical information, are sorted and displayed correctly according to the user-defined patient demographics, medication list, and patient problems, and are accurate and without omission. Examples of sort criteria include patient name, patient age, patient location, patients with specific problems, patients taking specific medication, list of patients <12 years old, with Asthma, and who take fluticasone, list of patients < 50 years old, with Hypertension, and who take lisinopril

DTR170.302.h – 3: Electronically Output Patient Lists

Required Vendor Information

- As defined in DTR170.302.h – 1, no additional information is required

Required Test Procedure:

- TE170.302.h – 3.01: Using the EHR function(s) identified by the Vendor, the Tester shall output the patient lists from the Select and Sort and Retrieve tests
- TE170.302.h – 3.02: Using the NIST-supplied Inspection Test Guide, the Tester shall verify that the output patient lists contain patients' clinical information, are output correctly according to the user-defined demographic data, medication list, and patient problems, and are accurate and complete

Inspection Test Guide

- IN170.302.h – 3.01: Tester shall verify that the selected, sorted, and displayed patient lists can be displayed online, or printed or output as an electronic file) correctly and without omission

EXAMPLE TEST DATA

Examples of patient lists

Patient Lists by Demographics

List by Patient Name

List by Patient Age

List by Patient Location

Patient Lists by Medication

List of patients taking Plavix (clopidogrel)

List of patients taking Zestril (lisinopril)

List of patients taking Atrovent inhaler (ipratropium bromide monohydrate)

Patient Lists by Patient Problem

List of patients with Asthma

List of patients with Chronic Obstructive Pulmonary Disease (COPD)

List of patients with Hypertension

CONFORMANCE TEST TOOLS

None