

## Test Procedure for §170.302 (m) Patient-specific education resources

This document describes the draft test procedure for evaluating conformance of complete EHRs or EHR modules<sup>1</sup> to the certification criteria defined in 45 CFR Part 170 Subpart C of the Final Rule for Health Information Technology: Initial Set of standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology as published in the Federal Register on July 28, 2010. The document<sup>2</sup> 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](http://healthcare.nist.gov/docs/TestProcedureOverview_v1.pdf). The test procedures may be updated to reflect on-going feedback received during the certification activities.

The HHS/Office of the National Coordinator for Health Information Technology (ONC) has defined the standards, implementation guides and certification criteria used in this test procedure. Applicability and interpretation of the standards, implementation guides and certification criteria to EHR technology is determined by ONC. Test procedures to evaluate conformance of EHR technology to ONC's requirements are defined by NIST. Testing of EHR technology is carried out by ONC-Authorized Testing and Certification Bodies (ATCBs), not NIST, as set forth in the final rule establishing the Temporary Certification Program (*Establishment of the Temporary Certification Program for Health Information Technology, 45 CFR Part 170; June 24, 2010.*)

Questions about the applicability of the standards, implementation guides or criteria should be directed to ONC at [ONC.Certification@hhs.gov](mailto:ONC.Certification@hhs.gov). Questions about the test procedures should be directed to NIST at [hit-tst-fdbk@nist.gov](mailto:hit-tst-fdbk@nist.gov). Note that NIST will automatically forward to ONC any questions regarding the applicability of the standards, implementation guides or criteria. Questions about functions and activities of the ATCBs should be directed to ONC at [ONC.Certification@hhs.gov](mailto:ONC.Certification@hhs.gov)

### CERTIFICATION CRITERIA

This Certification Criterion is from the Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology Final Rule issued by the Department of Health and Human Services (HHS) on July 28, 2010.

§170.302 (m) Patient-specific education resources. Enable a user to electronically identify and provide patient-specific education resources according to, at a minimum, the data elements included in the patient's: problem list; medication list; and laboratory test results as well as provide such resources to the patient.

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<sup>1</sup> Department of Health and Human Services, 45 CFR Part 170 Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology, Final Rule, July 28, 2010.

<sup>2</sup> Disclaimer: Certain commercial products are identified in this document. Such identification does not imply recommendation or endorsement by the National Institute of Standards and Technology.

Per Section III.D of the preamble of the Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology, Final Rule where the patient-specific education resources certification criterion is discussed:

- “We clarify that we do not specify how Certified EHR Technology must be used to provide such resources to a patient. That is, such resources could be printed out, faxed, or emailed.”

## 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 Module to enable a user to electronically identify patient-specific education resources according to, at a minimum, the data elements included in the patient’s problem list, medication list, and laboratory test results as well as provide such resources to the patient.

The Vendor supplies the test data for this test.

This test procedure is organized into two sections:

- Identify - evaluates the capability to electronically identify patient-specific education resources using, at a minimum, the data elements included in the patient’s problem list, medication list, and laboratory test results
  - The Tester electronically identifies two or more patient-specific education resources for a patient based on, at a minimum, the data elements included in the patient’s problem list, medication list, and laboratory test results
- Provide – evaluates the capability to provide the patient-specific education resources to the patient
  - The Tester produces two or more patient-specific education resources from the Identify test
  - The Tester validates that the electronically identified patient-specific education resources are produced to be provided to the patient, and that the education resources provided to the patient are based on the data elements in the patient’s problem list, medication list, and laboratory test results

## REFERENCED STANDARDS

None

## NORMATIVE TEST PROCEDURES

### Derived Test Requirements

DTR170.302.m – 1: Electronically Identify Patient-specific Education Resources

## DTR170.302.m – 2: Provide Patient-specific Education Resources to the Patient

### **DTR170.302.m – 1: Electronically Identify Patient-specific Education Resources**

#### Required Vendor Information

- VE170.302.m – 1.01: Vendor shall identify a patient with an existing record in the EHR to be used for this test
- VE170.302.m – 1.02: Vendor shall identify two or more types of patient-specific education resources available for this test
- VE170.302.m - 1.03: Vendor shall provide the test data for this test
- VE170.302.m – 1.04: Vendor shall identify the EHR function(s) that are available to: 1) select a patient, 2) electronically identify patient-specific education resources based on, at a minimum, data elements included in the patient's problem list, medication list, and laboratory test results, and 3) provide these patient-specific education resources to the patient

#### Required Test Procedure:

- TE170.302.m – 1.01: Using the EHR function(s) identified by the Vendor, the Tester shall identify two or more patient-specific education resources based on, at a minimum, data elements included in the patient's problem list, medication list, and laboratory test results
- TE170.302.m – 1.02: Using the NIST-supplied Inspection Test Guide, the Tester shall verify that the identified patient-specific education resources are based on, at a minimum, data elements included in the patient's problem list, medication list, and laboratory test results

#### Inspection Test Guide

- IN170.302.m – 1.01: Tester shall verify that two or more patient-specific education resources based on, at a minimum, Vendor-supplied data elements included in the patient's problem list, medication list, and laboratory test results are identified.  
TD170.302.m shows examples of data elements for identifying patient-specific education resources

### **DTR170.302.m – 2: Provide Patient-specific Education Resources to the Patient**

#### Required Vendor Information

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

#### Required Test Procedure:

- TE170.302.m – 2.01: Using the EHR function(s) identified by the Vendor, the Tester shall produce two or more patient-specific education resources based on, at a minimum, data elements included in the patient's problem list, medication list, and laboratory test results

TE170.302.m – 2.02: Using the NIST-supplied Inspection Test Guide, the Tester shall verify that the two or more patient-specific education resources are produced based on, at a minimum, the Vendor-supplied data elements included in the patient’s problem list, medication list, and laboratory test results, using a method that allows the education resources to be provided to the patient, and that the resources provided to the patient are based on the patient’s data

Inspection Test Guide:

IN170.302.m – 2.01: Using the Vendor-supplied test data, Tester shall verify that patient-specific education resources are produced correctly according to, at a minimum, the data elements included in the problem list, medication list, and laboratory test results, that the education resources are provided for the patient, and that these education resources are based on the patient’s data

## TEST DATA

This Test Procedure requires the vendor to supply the test data. The Tester shall address the following:

- Vendor-supplied test data shall ensure that the functional and interoperable requirements identified in the criterion can be adequately evaluated for conformance
- Vendor-supplied test data shall strictly focus on meeting the basic capabilities required of an EHR relative to the certification criterion rather than exercising the full breadth/depth of capability that an installed EHR might be expected to support
- Tester shall record as part of the test documentation the specific Vendor-supplied test data that was utilized for testing

**TD170.302.m:** Examples of sets of data elements that could be included in the problem list, medication list, and laboratory test results for identifying and providing patient-specific education resources for this test:

Example Data Elements - Set 1

- Problem: Type II Diabetes
- Medication: Avandia
- Laboratory Test Results: Fasting Blood Sugar: 128 mg/dL

Example Data Elements - Set 2

- Problem: Cystic Fibrosis
- Medication: Theophylline
- Laboratory Test Results: Plasma Amylase: 220 U/L  
Plasma Lipase: 60 U/L

## CONFORMANCE TEST TOOLS

None



## Document History

Version Number	Description	Date Published
1.0	Updated to remove "Pending" from header	August 13, 2010