

<b>2015 Edition §170.315(c)(2) Clinical quality measures – import and calculate</b>				
Testing Components:				
				<b>ONC Supplied Test Data</b>
Test Procedure Version 1.0 – Last Updated: 8/4/16				

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

#### (c)(2) Import and Calculate

(i) Import: Enable a user to import a data file in accordance with the standard specified in § 170.205(h)(2) for one or multiple patients and use such data to perform the capability specified in paragraph (c)(2)(ii) of this section. A user must be able to execute this capability at any time the user chooses and without subsequent developer assistance to operate.

**Standard(s):** § 170.205(h)(2) [HL7 CDA® R2 Implementation Guide: Quality Reporting Document Architecture – Category I \(QRDA I\); Release 1, DSTU Release 3 \(US Realm\)](#), Volume 1 – Introductory Material and HL7 CDA® R2 Implementation Guide: Quality Reporting Document Architecture – Category I (QRDA I); Release 1, DSTU Release 3 (US Realm), Volume 2 – Templates and Supporting Material (incorporated by reference in § 170.299) **Test Data:** [Cypress Gold Standard Test Data created using the Cypress Test Tool](#)

**Test Tool:** [Cypress Test Tool User Interface](#)

Criteria ¶	System Under Test	Test Lab Verification
(i)	<p><b><u>Execute Any time</u></b></p> <ol style="list-style-type: none"> <li>The health IT developer supplies documentation outlining how a user can execute the import capability described in (c)(2)(i) any time the user chooses and without subsequent developer assistance to operate.</li> </ol>	<p><b><u>Execute Any time</u></b></p> <ol style="list-style-type: none"> <li>The tester verifies that the health IT developer supplied documentation outlines that a user can perform an import as specified in (c)(2)(i) any time the user chooses and without subsequent developer assistance to operate.</li> </ol>

Criteria ¶	System Under Test	Test Lab Verification
(i)	<p><b>Setup</b></p> <p>2. The Health IT Module provides the following information in order to enable the creation of the (c)(2)(i) "Cypress Gold Standard Test Data" which includes instructions to enable the recording of CQM data within patient record(s):</p> <ul style="list-style-type: none"> <li>• Name of the health IT developer;</li> <li>• Name of the Product;</li> <li>• List of CQMs to be certified; and</li> <li>• List of certification criteria to be tested</li> </ul> <p><b>Import</b></p> <p>3. Using the "Cypress Gold Standard Test Data" a user demonstrates the importing of reports formatted in accordance with the standard specified at § 170.205(h)(2), HL7 CDA® R2 Implementation Guide: Quality Reporting Document Architecture – Category I (QRDA I) DSTU Release 3 (US Realm) for all of the data needed to calculate each of the clinical quality measures (CQMs) presented for testing, for one or multiple patients.</p>	<p><b>Setup</b></p> <p>2. The tester creates the "Cypress Gold Standard Test Data" based upon the information provided by the health IT developer, in the Cypress Test Tool User Interface, which will create a new (c)(2) test instance.</p> <p><b>Import</b></p> <p>3. Using visual inspection, the tester verifies that the Health IT Module can demonstrate the importing of CQM data specified in accordance to the standard at § 170.205(h)(2).</p>

(ii) **Calculate:** Calculate each and every clinical quality measure for which it is presented for certification.

**Standard(s):** § 170.205(h)(2) [HL7 CDA® R2 Implementation Guide: Quality Reporting Document Architecture – Category I \(QRDA I\); Release 1, DSTU Release 3 \(US Realm\)](#), Volume 1 – Introductory Material and HL7 CDA® R2 Implementation Guide: Quality Reporting Document Architecture – Category I (QRDA I); Release 1, DSTU Release 3 (US Realm), Volume 2 – Templates and Supporting Material (incorporated by reference in § 170.299)

§ 170.205(k)(1) [Quality Reporting Document Architecture Category III, Implementation Guide for CDA Release 2](#) (incorporated by reference in § 170.299).

§ 170.205(k)(2) [Errata to the HL7 Implementation Guide for CDA® Release 2: Quality Reporting Document Architecture – Category III, DSTU Release 1 \(US Realm\), September 2014](#) (incorporated by reference in § 170.299). **Test Data:** [Cypress Gold Standard Test Data created using the Cypress Test Tool](#)

**Test Tool:** [Cypress Test Tool User Interface](#)

Testing must be conducted for one of the Alternatives outlined below to satisfy the requirements for this criterion.

Criteria ¶	System Under Test	Test Lab Verification
(ii)	<p><b>Calculate</b></p> <ol style="list-style-type: none"> <li>The user calculates the aggregate reports for each of the CQMs for which they are seeking certification, based upon the imported and de-duplicated data set.</li> <li>The Health IT Module submits an aggregate report for each of the CQMs to be certified.</li> </ol>	<p><b>Calculate</b></p> <ol style="list-style-type: none"> <li>The tester verifies that the Health IT Module can use the imported CQM data to calculate the aggregate data and display the report in accordance at a minimum to the standard at § 170.205(k)(1) and (2) using visual inspection.</li> <li>Using the Cypress Test Tool User Interface, the tester: <ul style="list-style-type: none"> <li>uploads the aggregate report(s) submitted by the Health IT Module in step 4 of the SUT; and</li> <li>evaluates and displays the accuracy of the submitted CQM results.</li> </ul> </li> </ol> <p><b>Packaging of Results</b></p> <ol style="list-style-type: none"> <li>Upon completion of step 4, the tester generates a test artifact containing the following into a single archived file and any additional notes that the tester deems important: <ul style="list-style-type: none"> <li>all of the test data used to test (c)(2);</li> <li>all of the data generated by the Health IT Module.</li> </ul> </li> </ol> <p>Alternative: Cypress Certification API</p> <ol style="list-style-type: none"> <li>A user may use the Cypress Certification API to perform step 3 of the SUT. The tester can verify the results in Cypress as normal, however the tester should manually perform verification steps 2-4 for at least one CQM to ensure this functionality is present. Step 5 should be completed as usual.</li> </ol>

### Document History

Version Number	Description of Change	Date
1.0	Final Test Procedure	August 4, 2016

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