

**2015 Edition §170.315(c)(4) Clinical Quality Measures –Filter**

NCQA will use the ONC Cypress gold standard test procedures and tools for testing the following measures. For these specific measures, vendors will follow the testing steps as outlined in the most current version of the § 170.315(c)(4) Test Procedure found at <https://www.healthit.gov/policy-researchers-implementers/2015-edition-test-method>.

2017 Performance Period eQMs Tested with Cypress				
CMS22v5	CMS68v6	CMS138v5	CMS148v5	CMS177v5
CMS50v5	CMS69v5	CMS139v5	CMS149v5	CMS179v5
CMS52v5	CMS75v5	CMS140v5	CMS157v5	CMS182v6
CMS56v5	CMS77v5	CMS141v6	CMS158v5	
CMS61v6	CMS90v6	CMS142v5	CMS161v5	
CMS62v5	CMS129v6	CMS143v5	CMS163v5	
CMS64v6	CMS132v5	CMS144v5	CMS164v5	
CMS65v6	CMS133v5	CMS145v5	CMS167v5	
CMS66v5	CMS135v5	CMS147v6	CMS169v5	
2018 Performance Period eQMs Tested with Cypress				
CMS22v6	CMS68v7	CMS138v6	CMS149v6	CMS177v6
CMS50v6	CMS69v6	CMS139v6	CMS157v6	CMS347v1
CMS52v6	CMS75v6	CMS142v6	CMS158v6	CMS645V1
CMS56v6	CMS90v7	CMS143v6	CMS161v6	
CMS65v7	CMS129v7	CMS144v6	CMS164v6	
CMS66v6	CMS132v6	CMS145v6	CMS167v6	
	CMS133v6	CMS147v7	CMS169v6	
	CMS135v6			

NCQA will use their own test decks and [Online Scoring Program](#) for testing the following measures. Vendors will follow the testing steps outlined below.

2017 Performance Period eQMs Tested with NCQA				
CMS2v6	CMS123v5	CMS128v5	CMS137v5	CMS156v5
CMS74v6	CMS124v5	CMS130v5	CMS146v5	CMS159v5
CMS82v4	CMS125v5	CMS131v5	CMS153v5	CMS160v5
CMS117v5	CMS126v4	CMS134v5	CMS154v5	CMS165v5
CMS122v5	CMS127v5	CMS136v6	CMS155v5	CMS166v6
2018 Performance Period eQMs Tested with NCQA				
CMS2v7	CMS123v6	CMS128v6	CMS137v6	CMS156v6
CMS74v7	CMS124v6	CMS130v6	CMS146v6	CMS159v6
CMS82v5	CMS125v6	CMS131v6	CMS153v6	CMS160v6
CMS117v6	CMS126v5	CMS134v6	CMS154v6	CMS165v6
CMS122v6	CMS127v6	CMS136v7	CMS155v6	CMS166v7

## Steps for Testing Measures Using NCQA Test Decks

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 [eCQM Testing Guide](#) in tandem with the test procedure as it provides clarifications that may be useful for testing.

### Required Tests

#### (c)(4) Record

- (i) Record the data listed in paragraph (c)(4)(iii) of this section in accordance with the identified standards, where specified.

**Standard(s):** §170.205(f)(2): [“Race & Ethnicity – CDC” code system in the PHIN Vocabulary Access and Distribution System \(VADS\), Release 3.3.9](#)

§170.207(n)(1): Birth sex must be coded in accordance with HL7 Version 3 Value Sets for AdministrativeGender and NullFlavor attributed as follows:

- (i) Male. M
- (ii) Female. F
- (iii) Unknown. NullFlavor UNK.

§170.207(a)(4): [Development Organization \(IHTSDO\) Systematized Nomenclature of Medicine Clinical Terms \(SNOMED CT®\), U.S. Edition, September 2015 Release](#)

§170.207(r)(1): [Healthcare Provider Taxonomy Code Set \(updated April 2, 2015\)](#)

§170.207(s)(1): [Public Health Data Standards Consortium Source of Payment Typology Code Set Version 5.0 \(October 2011\)](#)

**Test Data:** [NCQA Test Deck](#)

**Test Tool:** [NCQA Online Scoring Program](#)

Criteria ¶	System Under Test	Test Lab Verification
(i)	<p><u>Record</u></p> <p>1. For each quality measure being certified, the user records the data elements used to filter the Clinical Quality Measure(s) (CQM) data specified in (c)(4)(iii) in accordance with the identified standards where specified into a patient record:</p> <ul style="list-style-type: none"> <li>• Taxpayer Identification Number.</li> <li>• National Provider Identifier.</li> <li>• Provider type in accordance with, at a minimum, the standard specified in § 170.207(r)(1), Healthcare Provider Taxonomy Code Set (updated April 2, 2015)</li> <li>• Practice site address.</li> <li>• Patient insurance in accordance with the standard specified in § 170.207(s)(1), Public Health Data Standards Consortium Source of Payment Typology Code Set Version 5.0 (October 2011).</li> <li>• Patient age (Calculated from the Patient Date of Birth).</li> <li>• Patient sex in accordance with the version of the standard specified in § 170.207(n)(1), birth sex must be coded in accordance with HL7 Version 3 Value Sets for AdministrativeGender and NullFlavor attributed as follows: <ul style="list-style-type: none"> <li>(i) Male. M</li> <li>(ii) Female. F</li> <li>(iii) Unknown. NullFlavor UNK.</li> </ul> </li> <li>• Patient race and ethnicity in accordance with, at a minimum, the version of the standard specified in § 170.207(f)(2), “Race &amp; Ethnicity – CDC” code system in the PHIN Vocabulary Access and Distribution System (VADS), Release 3.3.9.</li> <li>• Patient problem list data as defined by the CQM value sets in the certified CQMs. Patient problem list data should support the version of the standard specified in § 170.207(a)(4), SNOMED-CT®.</li> </ul>	<p><u>Record</u></p> <p>1. The tester verifies that all the CQM data can be recorded by the Health IT Module, in accordance with the identified standards, where specified in (c)(4)(iii).</p> <p>2. <u>Packaging of Results</u> Upon completion of the test, the tester generates a test artifact containing:</p> <ul style="list-style-type: none"> <li>• all the test data used to test (c)(4)(ii)(A);</li> <li>• all the data generated by the Health IT Module; and</li> <li>• any additional notes that the tester deems important into a single archive file.</li> </ul>

**(c)(4) Filter:**

(ii) Filter CQM results at the patient and aggregate levels by each one and any combination of the data listed in paragraph (c)(4)(iii) of this section and be able to:

- (A) Create a data file of the filtered data in accordance with the standards adopted in § 170.205(h)(2) and § 170.205(k)(1) and (2); and
- (B) Display the filtered data results in human readable format.

**Standard(s):** §170.205(h)(2): [HL7 CDA® Release 2 Implementation Guide for: Quality Reporting Document Architecture – Category I\(QRDA I\), DSTU Release 3 \(US Realm\)](#)

§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): [HL7 Implementation Guide for CDA® Release 2: Quality Reporting Document Architecture—Category III, DSTU Release 1 \(US Realm\) with September 2014 Errata](#)

**Test Data:** [NCQA Test Deck](#)

**Test Tool:** [NCQA Online Scoring Program](#)

Criteria ¶	System Under Test	Test Lab Verification
(ii)(A)	<p><u>Setup</u></p> <ol style="list-style-type: none"> <li>The Health IT Module provides the following information on the application form: <ul style="list-style-type: none"> <li>Name of the health IT developer;</li> <li>Name of the Product; and</li> <li>List of CQMs to be certified.</li> </ul> </li> </ol> <p><u>Import</u></p> <ol style="list-style-type: none"> <li>The user imports all the data needed to calculate each of the clinical quality measures (CQMs) presented for testing, for one or multiple patients, supplied by the NCQA Online Scoring Program in CCD format.</li> </ol> <p><u>Filter</u></p> <ol style="list-style-type: none"> <li>For each CQM being certified: Using the filter test instructions provided, the user applies the filters against the same patient data imported in step 2 above to demonstrate the ability to filter the CQM results at the patient and aggregate levels, by each one and any combination of the CQM data elements specified in (C)(4)(iii): <ul style="list-style-type: none"> <li>Taxpayer Identification Number.</li> <li>National Provider Identifier.</li> <li>Provider type.</li> <li>Practice site address.</li> <li>Patient insurance.</li> <li>Patient age (calculated from Patient date of birth).</li> <li>Patient sex.</li> <li>Patient race and ethnicity.</li> <li>Patient problem list</li> </ul> <p>This includes the following types of filtering:</p> <ul style="list-style-type: none"> <li>Filter by individual data elements;</li> <li>Filter with any combination of filter data elements.</li> </ul> </li> </ol>	<p><u>Calculate Filtered Aggregate Reports</u></p> <ol style="list-style-type: none"> <li>The tester uploads the NCQA test deck to the Online Scoring Program.</li> <li>The verification should include at least: <ul style="list-style-type: none"> <li>Two multi-factor (at least two criteria) filter tests based on patient information.</li> <li>Two multi-factor (at least two criteria) filter tests based on provider information.</li> <li>A filter test based on patient problem list.</li> </ul> </li> </ol> <p><u>Filtered QRDA Reports</u></p> <ol style="list-style-type: none"> <li>The tester uses the NCQA Online Scoring Program to verify that the Health IT Module can create a filtered CQM results data file at the patient and aggregate levels, in accordance with at a minimum the standards adopted in §170.205(h)(2), and § 170.205(k)(1) and (2) and that the CQM filtered results data file from step 7 of the SUT was submitted and the results are accurate. The tester ensures that all data and results are archived from the Online Scoring Program.</li> </ol>

Criteria ¶	System Under Test	Test Lab Verification
(ii)(A), continued	<p><u>Calculate Filtered Aggregate Reports</u></p> <ol style="list-style-type: none"> <li>4. The user calculates the aggregate reports (as specified in(c)(2)(ii)) for each filter applied using the imported data set in step 2.</li> <li>5. The Health IT Module submits a set of aggregate reports which includes the aggregate reports for all the filtered CQMs on the Online Scoring Program.</li> </ol> <p><u>Filtered QRDA Reports</u></p> <ol style="list-style-type: none"> <li>6. The user creates a CQM results data file based upon the filtered data in (c)(4)(ii) step 1, in accordance with the standards adopted in § 170.205(h)(2), HL7 CDA® Release 2 Implementation Guide for: Quality Reporting Document Architecture – Category I(QRDA I), DSTU Release 3 (US Realm) for one or more patients with one or more quality measures; using at a minimum, §170.205(k)(1), Quality Reporting Document Architecture Category III, Implementation Guide for CDA Release 2 , and §170.205(k)(2), <a href="#">HL7 Implementation Guide for CDA® Release 2:Quality Reporting Document Architecture—Category III, DSTU Release 1 (US Realm)</a> with September 2014 Errata; for calculation of the CQMs containing a calculated summary of one or more quality measures for a specific population.</li> <li>7. The Health IT Module submits the CQM results data file.</li> </ol>	See above.
(ii)(B)	<p><u>Display Filtered Data Results</u></p> <ol style="list-style-type: none"> <li>1. Using the Health IT Module and the filtered data created in(c)(4)(ii)(A) step 3, the user can display the filtered data results in human readable format including the display of the following information for each of the measures: <ul style="list-style-type: none"> <li>• patient population;</li> <li>• denominator;</li> <li>• numerator;</li> <li>• exclusions; and</li> <li>• exceptions.</li> </ul> </li> </ol>	<p><u>Display Filtered Data Results</u></p> <ol style="list-style-type: none"> <li>1. The tester visually verifies that the system can filter and display the data in human readable format.</li> <li>2. The filtered data presented in (c)(4)(ii)(B) SUT step 1 is compared to the NCQA aggregate report; comparing the denominator, numerator and exclusions with the expected results.</li> </ol>

- (ii) Data.
  - (A) Taxpayer Identification Number.
  - (B) National Provider Identifier.
  - (C) Provider type in accordance with, at a minimum, the standard specified in § 170.207(r)(1).
  - (D) Practice site address.
  - (E) Patient insurance in accordance with, at the standard specified in § 170.207(s)(1).
  - (F) Patient age.
  - (G) Patient sex in accordance with the version of the standard specified in § 170.207(n)(1).
  - (H) Patient race and ethnicity in accordance with, at a minimum, the version of the standard specified in § 170.207(f)(2).
  - (I) Patient problem list data in accordance with, at a minimum, the version of the standard specified in § 170.207(a)(4).

**Standard(s):** §170.205(f)(2): [“Race & Ethnicity – CDC” code system in the PHIN Vocabulary Access and Distribution System \(VADS\), Release 3.3.9](#)

§170.207(n)(1): Birth sex must be coded in accordance with HL7 Version 3 Value Sets for AdministrativeGender and NullFlavor attributed as follows:

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§170.207(r)(1): [Healthcare Provider Taxonomy Code Set \(updated April 2, 2015\)](#)

§170.207(s)(1): [Public Health Data Standards Consortium Source of Payment Typology Code Set Version 5.0 \(October 2011\)](#)

Criteria ¶	System Under Test	Test Lab Verification
(iii)	<p>The following data elements are used to filter the CQM Results using the health IT developer-identified health IT function(s) in accordance with the identified standards, where specified.</p> <ul style="list-style-type: none"> <li>• Taxpayer Identification Number.</li> <li>• National Provider Identifier.</li> <li>• Provider type in accordance with, at a minimum, the standard specified in § 170.207(r)(1), Healthcare Provider Taxonomy Code Set (updated April 2, 2015)</li> <li>• Practice site address.</li> <li>• Patient insurance in accordance with the standard specified in § 170.207(s)(1), Public Health Data Standards Consortium Source of Payment Typology Code Set Version 5.0 (October 2011).</li> </ul>	<p>The tester verifies that the Health IT Module supports all the CQM data elements specified in (c)(4)(iii) in accordance with the identified standards, where specified through the verification of: (c)(4)(i), (c)(4)(ii)(A) and (c)(4)(ii)(B).</p> <ul style="list-style-type: none"> <li>• Note: There is no expectation that the tester verifies all combinations, rather demonstrate that the filtering ability includes filtering any combination of the data values.</li> </ul>

Criteria ¶	System Under Test	Test Lab Verification
(iii), continued	<ul style="list-style-type: none"> <li>• Patient age (Calculated from the Patient Date of Birth)</li> <li>• Patient sex in accordance with the version of the standard specified in § 170.207(n)(1), Birth sex must be coded in accordance with HL7 Version 3 attributed as follows:               <ul style="list-style-type: none"> <li>(i) Male. M</li> <li>(ii) Female. F</li> <li>(iii) Unknown. UNK.</li> </ul> </li> <li>• Patient race and ethnicity in accordance with, at a minimum, the version of the standard specified in § 170.207(f)(2), “Race &amp; Ethnicity – CDC” code system in the PHIN Vocabulary Access and Distribution System (VADS), Release 3.3.9.</li> <li>• Patient problem list data in accordance with, at a minimum, the version of the standard specified in § 170.207(a)(4), SNOMED-CT®.</li> </ul>	See above.

#### Revision History

Version	Primary Author(s)	Description of Version	Date Completed
0.1	Anne Marie Smith	Initial Draft Version	5/1/2017
1.0	Anne Marie Smith	First Published Version	6/23/2017