



Centers for Medicare & Medicaid Services
CMS eXpedited Life Cycle (XLC)

Hospital Quality Reporting (HQR) Quality
Reporting Document Architecture Category I
Release 2

Supplementary Implementation Guide -

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1. Introduction

This document is a Hospital Quality Reporting (HQR) supplementary implementation guide to the Health Level 7 (HL7) Implementation Guide for Clinical Document Architecture® (CDA) Release 2: Quality Reporting Document Architecture – Category I (QRDA) Draft Standard for Trial Use (DSTU) Release 2 (US Realm), July, 2012, updated with December 21, 2012 errata (Table 15). It describes additional conformance statements and constraints for the Electronic Health Record (EHR) data submissions that are required for reporting information to the Centers for Medicare and Medicaid Services (CMS) through its Health Information Technology for Economic and Clinical Health Act (HITECH) EHR Incentive Program Hospital electronic Clinical Quality Measures (eCQM) Reporting system.

2. Conformance Conventions Used in This Guide

2.1 Keywords

The keywords **shall**, **should**, **may**, **need not**, **should not**, and **shall not** in this document have the following meaning:

- shall:** an absolute requirement for the particular element. Where a **SHALL** constraint is applied to an XML element, that element must be present in an instance, but may have an exceptional value (i.e., may have a nullFlavor), unless explicitly precluded. Where a **SHALL** constraint is applied to an XML attribute, that attribute must be present, and must contain a conformant value.
- shall not:** an absolute prohibition against inclusion.
- should/should not:** best practice or recommendation. There may be valid reasons to ignore an item, but the full implications must be understood and carefully weighed before choosing a different course.
- may/need not:** truly optional; can be included or omitted as the author decides with no implications.

2.2 Cardinality

The cardinality indicator (0..1, 1..1, 1..*, etc.) specifies the allowable occurrences within a document instance. The cardinality indicators are interpreted with the following format “m...n”, where m represents the least and n the most:

- 0..1** zero or one
- 1..1** exactly one
- 1..*** at least one
- 0..*** zero or more
- 1..n** at least one and not more than n

2.3 Null Flavor

Information technology solutions store and manage data, but sometimes data are not available; an item may be unknown, not relevant, or not computable or measurable. In HL7, a flavor of null, or `nullFlavor`, describes the reason for missing data.

Figure 1: Examples of `nullFlavor` for `raceCode`

```
<raceCode nullFlavor="ASKU"/>

  <!--coding a raceCode when the patient declined to specify his/her race-->

  <raceCode nullFlavor="UNK"/>

  <!--coding a raceCode when the patient's race is unknown-->
```

Use nullflavors for unknown, required, or optional attributes:

NI	No information. This is the most general and default null flavor.
NA	Not applicable. Known to have no proper value (e.g., last menstrual period for a male).
UNK	Unknown. A proper value is applicable, but is not known.
ASKU	Asked, but not known. Information was sought, but not found (e.g., the patient was asked but did not know).
NAV	Temporarily unavailable. The information is not available, but is expected to be available later.
NASK	Not asked. The patient was not asked.
MSK	There is information on this item available but it has not been provided by the sender due to security, privacy, or other reasons. There may be an alternate mechanism for gaining access to this information.
OTH	The actual value is not and will not be assigned a standard coded value. An example is the name or identifier of a clinical trial.

This above list contains those null flavors that are commonly used in clinical documents. For the full list and descriptions, see the `nullFlavor` vocabulary domain in the in the HL7 standard, *Clinical Document Architecture, Release 2.0*.

Any **SHALL** conformance statement may use `nullFlavor`, unless the attribute is required or the `nullFlavor` is explicitly disallowed. **SHOULD** and **MAY** conformance statements may also use `nullFlavor`.

2.4 XML Examples and Sample Documents

Extensible Mark-up Language (XML) examples appear in the various figures throughout this document. Portions of the XML content may be omitted from the content for brevity, marked by an ellipsis (...).

2.5 Interchangeable Terms

The following terms listed in Table 1 shall be used interchangeably in this document.

Table 1: Interchangeable Terms

Term/Concept	Alternate Terminology
QRDA Category I Release 2 document	QRDA document QRDA file QRDA Category I document QRDA Category I file QRDA Category I R2 document
Measure	eMeasure eCQM
HQR Measures	HQR Clinical Quality Measures eCQMs Measures indicated in Appendix A – HQR eMeasures
System	HITECH EHR Incentive Program Hospital eCQM Reporting

3. Overview

CMS will process HQR eCQM QRDA Category I Release 2 documents originating from EHR systems. Submitted QRDA documents for HITECH EHR Incentive Program Hospital eCQM Reporting must meet the conformance statements specified in this document, in addition to the conformance statements specified in the HL7 Implementation Guide for CDA® Release 2: QRDA Category I DSTU Release 2 (US Realm) (July, 2012 updated with December 21, 2012 errata). The QRDA standard is designed to meet the needs of many recipients of quality reports; in it a number of data elements are recommended, but not required (**SHOULD**). This specification describes which of these data elements are required (**SHALL**) for the HITECH EHR Incentive Program Hospital eCQM Reporting.

The EHR system shall generate QRDA documents with HQR eCQMs according to these specified conformance statements. These QRDA documents shall be submitted to CMS via the QualityNet Secure Portal.

4. Background

A CQM is a mechanism that enables the user to quantify the quality of a selected aspect of care by comparing it to a criterion. A subtype of a quality measure is a clinical performance measure. Specifically, a clinical performance measure is a mechanism for assessing the degree to which a provider competently and safely delivers clinical services that are appropriate for the patient in the optimal time period.

Quality measures are used for three general purposes:

Quality improvement

Accountability

Research

Without the ability to accurately communicate the data in these measures to external agencies, the benefit of collecting the information is limited. QRDA specifications along with this implementation guide are used to standardize the representation of measure-defined data elements to enable interoperability between all of the stakeholder organizations.

A QRDA Category I document is an individual patient-level file. A QRDA Category I document is the only type accepted by the CMS HQR EHR System. Each file contains quality data for one or more quality measures, where the data elements in the file are defined by the particular measure(s) being reported. When pooled and analyzed, each file contributes the quality data necessary to calculate eCQMs.

5. CMS-Based QRDA Category 1 Validation

Where no constraints are stated in this specification, the report instances are subject to and are to be created in accordance with the HL7 Implementation Guide for CDA® R2: QRDA Category I DSTU Release 2 (US Realm) (July, 2012 updated with December 21, 2012 errata), which is the base standard for this document. Where, for instance, the QRDA Category I R2 Specification declares an element/attribute to be optional, and this specification contains additional constraints, that element/attribute is required. This specification will not violate a requirement in the base standard.

The following sub-sections provide the detailed requirements for HQR-specific data elements.

Note:

/ClinicalDocument/templated/@root= '2.16.840.1.113883.10.20.24.1.1' shall be used to determine if the submitted file is QRDA Category I Release 2 format. If this information is missing or incorrect then the system rejects the file.

5.1 QDM Based QRDA

The QRDA Category I Release 2 format incorporates a framework for coupling QRDA with the Quality Data Model (QDM), a domain-analysis model that supports consistent definition of clinical concepts recurring across quality measures.⁷ This framework allows users to create QDM-based QRDA that correspond with QDM-based eCQMs.

The **ClinicalDocument/templateId/@root= '2.16.840.1.113883.10.20.24.1.2'** shall be used to determine if the submitted file is a QDM-Based QRDA Category I Release 2 format. If this information is missing or incorrect then the system rejects the file.

5.2 Record Target Constraints

5.2.1 Medicare Health Insurance Claim (HIC)/Patient Identification Number

The Medicare HIC number is the identification number given to a patient who is covered by Medicare. If Medicare is not the payer, a Patient Identification Number (ID) shall be required. Patient ID is a patient identification number assigned to the patient by the EHR, An example may include the Medical Record Number.

Table 2: HIC Constraints Overview

XPath	Attribute / Element	Card.	Verb	CONF#	Fixed Value
/ClinicalDocument/recordTarget/patientRole/	id	1..1	SHALL	16858-1 16858-2	

This patient role **SHALL** contain exactly one [1..1] id (CONF-HR:16857-1) such that it:

1. **SHALL** contain exactly one [1..1] @root
2. The @root **SHOULD** contain zero or one [0..1] value equals to "2.16.840.1.113883.4.572" Medicare HIC number (CONF-HR:16858-1). **SHALL** contain exactly one [1..1] @extension Patient Id or Medicare HIC number (CONF-HR:16858-2)

Figure 2: HIC Number Example

```

<recordTarget>
  <patientRole>
    <!--HIC number-->
    <id root="2.16.840.1.113883.4.572" extension="123456789A" />
    ....
  </patientRole>
</recordTarget>

```


5.2.2 Patient Constraints

Table 3: Patient Constraints Overview

XPath	Attribute / Element	Card.	Verb	CONF#	Fixed Value
/ClinicalDocument/recordTarget/patientRole/patient/	raceCode	1..1	SHALL	5322-2	
	ethnicGroupCode	1..1	SHALL	5323-2	
	administrativeGenderCode	1..1	SHALL	6394-1	
	birthTime	1..1	SHALL	5300-1	

1. This patient **SHALL** contain exactly one [1..1] raceCode (CONF-HR:5322-2), which **SHALL** be selected from ValueSet Race 2.16.840.1.114222.4.11.836 DYNAMIC (CONF-HR:5322-1). In the event where race is unknown or patient declined to provide, a nullFlavor is permitted.
2. This patient **SHALL** contain exactly one [1..1] ethnicGroupCode (CONF-HR:5323-2), **which** SHALL be selected from ValueSet Ethnicity Value 2.16.840.1.114222.4.11.837 DYNAMIC (CONF-HR:5323-1). In the event where ethnicity is unknown or patient declined to provide, a nullFlavor is permitted.
3. This patient **SHALL** contain exactly one [1..1] administrativeGenderCode, which **SHALL** be selected from ValueSet Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 or ONC Administrative Sex 2.16.840.1.113762.1.4.1 DYNAMIC (CONF-HR:6394-1). In the event where gender is unknown, a nullFlavor is permitted.
4. This patient **SHALL** contain exactly one [1..1] birthTime such that it
 - a. **SHALL** contain exactly one [1..1] @value. The birthTime **SHALL** be precise to day (CONF-HR:5300-1).

5.2.2.1 Race Value Set

The Race Value Set is as follows:

- Value Set -** Race 2.16.840.1.114222.4.11.836 DYNAMIC
- Code System(s) -** Race and Ethnicity - CDC 2.16.840.1.113883.6.238
- Description -** A value set of codes for classifying data based upon race

Race is always reported at the discretion of the person for whom this attribute is reported, and reporting must be completed according to Federal guidelines for race reporting.

The PHIN Vocabulary Access and Distribution System, may be of additional assistance <http://phinvals.cdc.gov/vads/ViewCodeSystemConcept.action?oid=2.16.840.1.113883.6.238&code=1000-9>.

Table 4: Race Value Set (Excerpt)

Code	Code System	Print Name
1002-5	Race and Ethnicity- CDC	American Indian or Alaska Native
2028-9	Race and Ethnicity- CDC	Asian
2054-5	Race and Ethnicity- CDC	Black or African American
2076-8	Race and Ethnicity- CDC	Native Hawaiian or Other Pacific Islander
2131-1	Race and Ethnicity- CDC	Other Race
2106-3	Race and Ethnicity- CDC	White

5.2.2.2 Ethnicity Value Set

The Ethnicity Value Set is as follows:

Value Set - 2.16.840.1.114222.4.11.837 DYNAMIC

Code System(s) - Race and Ethnicity - CDC 2.16.840.1.113883.6.238

Table 5: Ethnicity Value Set (Excerpt)

Code	Code System	Print Name
2135-2	Race and Ethnicity Code Sets	Hispanic or Latino
2186-5	Race and Ethnicity Code Sets	Not Hispanic or Latino

5.2.2.3 Administrative Gender (HL7) Value Set

The Administrative Gender (HL7) Value Set is as follows:

Value Set - Administrative Gender (HL7 V3) 2.16.840.1.113883.1.11.1 DYNAMIC

Code System(s) - AdministrativeGender 2.16.840.1.113883.5.1

Table 6: Administrative Gender (HL7) Value Set

Code	Code System	Print Name
F	AdministrativeGender	Female
M	AdministrativeGender	Male
UN	AdministrativeGender	Undifferentiated

5.2.2.4 ONC Administrative Sex Value Set

The ONC Administrative Sex Value Set is as follows:

Value Set - ONC Administrative Sex 2.16.840.1.113762.1.4.1DYNAMIC

Code System(s) - AdministrativeSex 2.16.840.1.113883.18.2

Table 7: ONC Administrative Sex Value Set

Code	Code System	Print Name
F	AdministrativeSex	Female
M	AdministrativeSex	Male
U	AdministrativeSex	Unknown

Figure 3 Patient Example

```

<patient>
  ....
  <administrativeGenderCode code="M" codeSystem="2.16.840.1.113883.5.1"
  displayName="Male"/>
  <birthTime value="19541115"/>
  <raceCode code="2106-3" codeSystem="2.16.840.1.113883.6.238"
  codeSystemName="Race & Ethnicity - CDC" displayName="White"/>
  <ethnicGroupCode code="2186-5" codeSystem="2.16.840.1.113883.6.238"
  codeSystemName="Race & Ethnicity - CDC" displayName="Not Hispanic or Latino"/>
  ....
</patient>

```

5.3 Custodian Constraints: CMS Certification Number

The CMS Certification Number (CCN) is the Provider ID used by the Eligible Hospitals and Acute Care Hospitals. A fixed CCN value 800890 shall be used for test submission when no hospital is associated with a submitted QRDA document.

Table 8: CCN Constraints Overview

XPath	Attribute / Element	Card.	Verb	CONF#	Fixed Value
/ClinicalDocument/custodian/as signedCustodian/representedCustodianOrganization/	id	1..1	SHALL	16596-1 16597-1	

This represented CustodianOrganization id/@root coupled with the id/@extension represents the organization's Facility CMS Certification Number (CCN).

This representedCustodianOrganization **SHALL** contain exactly one [1..1] id (CONF-HR:16595-1) such that it:

1. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.336" Facility CMS Certification Number (CONF-HR:16596-1).
2. This @extension **SHALL** contain exactly one [1..1] Facility CMS Certification Number such that it contains at least six characters in length (CONF-HR:16597-1).

Figure 4: CCN Example

```

<custodian>
  <assignedCustodian>
    <representedCustodianOrganization>
      <!--Submitters' CCN-->
      <id root="2.16.840.1.113883.4.336" extension="800890"/>
      ....
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>

```

5.4 Participant Constraints: CMS EHR Certification Number

A hospital obtains the EHR Certification Number from CMS for the combination of EHR-certified software products. A valid number is a 15-digit alphanumeric string that represents a product or combination of product(s) in the Certified Health IT Product List (CHPL).

Note: CMS EHR Certification Number is not defined in QRDA Category I.

Table 9: CMS EHR Certification Number Constraints Overview

XPath	Attribute / Element	Card.	Verb	CONF#	Fixed Value
/ClinicalDocument/participant[@typeCode='DEV']/associatedEntity[@classCode='RGPR']	id	1..1	SHOULD	18305-1 18305-2	

This associatedEntity **SHOULD** contain zero or one [0..1] id (CONF-HR:18305-1) such that it:

1. **SHOULD** contain exactly one [1..1] @root="2.16.840.1.113883.3.2074.1" CMS EHR certification ID (CONF-HR:18305-1).
2. **SHOULD** contain exactly one [1..1] @extension CMS EHR certification ID such that it contains fifteen (15) alpha-numeric characters (CONF-HR:18305-2).

Figure 5: CMS EHR Certification Number Example

```

<participant typeCode="DEV">
  <associatedEntity classCode="RGPR">
    ....
    <!-- SHOULD have id, ID represents the CMS EHR Certification Number-->
    <id root="2.16.840.1.113883.3.2074.1" extension="A0H1301CFES9EAB"
    assigningAuthorityName="ONC"/>
    ....
  </associatedEntity>
</ participant>

```

5.5 Documentation Of Constraints

QRDA document **SHALL** contain exactly one [1..1] documentationOf (CONF-HR: 16579-1) such that it: **SHALL** contain exactly one [1..1] serviceEvent (CONF:16580).

1. This serviceEvent **SHALL** contain exactly one [1..1] @classCode="PCPR" Care Provision (CONF:16581).
2. This serviceEvent **SHALL** contain at least one [1..*] performer (CONF:16583).
 - a. Such performers **SHALL** contain exactly one [1..1] @typeCode="PRF" Performer (CONF:16584).
 - b. Such performers **SHALL** contain exactly one [1..1] assignedEntity (CONF:16586).

5.5.1 Tax Identification Number (TIN)

The TIN is a number used by hospitals to bill Medicare.

Table 10: TIN Constraints Overview

XPath	Attribute / Element	Card.	Verb	CONF#	Fixed Value
/ClinicalDocument/documentationOf[@typeCode='DOC']/serviceEvent[@classCode='PCPR']/performer[@typeCode='PRF']/assignedEntity/representedOrganization/	id	0..1	SHOULD	16592-1 16593 16594	

This representedOrganization **SHOULD** contain zero or one [0..1] id (CONF-HR:16592-1) such that it:

1. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.4.2" Tax ID Number (CONF:16593).
2. **SHALL** contain exactly one [1..1] @extension Tax ID Number (CONF:16594).

Figure 6: Documentation Of Example

```

<documentationOf typeCode="DOC">
  <serviceEvent classCode="PCPR">
    ...
    <!-- You can include multiple performers, each with a TIN. -->
    <performer typeCode="PRF">
      ...
      <assignedEntity>
        <representedOrganization>
          <!-- This is the organization TIN -->
          <id root="2.16.840.1.113883.4.2" extension="1234567"/>
        </representedOrganization>
      </assignedEntity>
    </performer>
    <performer typeCode="PRF">
      ...
      <assignedEntity>
        <representedOrganization>
          <!-- This is the organization TIN -->
          <id root="2.16.840.1.113883.4.2" extension="1234568"/>
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>

```

5.6 Measure Constraints: Measure ID

The Measure ID identifies the measure that is reported. The Health Quality Measure Format (HQMF) eMeasure document for the reported measure describes the algorithms for measure calculations. The version-specific ID shall be reported. Refer to Appendix A – HQR eMeasures for a list of HQR measures supported for the 2014 release.

Table 11: Measure Constraints Overview

XPath	Attribute / Element	Card.	Verb	CONF#	Fixed Value
/ClinicalDocument/component/structuredBody/component/section[templated/@root = '2.16.840.1.113883.10.20.24.2.3'] /	entry	1..*	SHALL	12978-1	
/ClinicalDocument/component/structuredBody/component/section[templated/@root = '2.16.840.1.113883.10.20.24.2.3'] /entry/	organizer	1..1	SHALL	12805 12806	
/ClinicalDocument/component/structuredBody/component/section[templated/@root = '2.16.840.1.113883.10.20.24.2.3'] /entry/organizer[@classCode='CLUSTER']/	templated	1..1	SHALL	13193	2.16.840.1.113883.10.20.24.3.97
/ClinicalDocument/component/structuredBody/component/section[templated/@root = '2.16.840.1.113883.10.20.24.2.3'] /entry/organizer[@classCode='CLUSTER']/	statusCode	1..1	SHALL	12807	completed
/ClinicalDocument/component/structuredBody/component/section[templated/@root = '2.16.840.1.113883.10.20.24.2.3'] /entry/organizer[@classCode='CLUSTER']/	reference	1..1	SHALL	12808-1 12809 12810-1	
/ClinicalDocument/component/structuredBody/component/section[templated/@root = '2.16.840.1.113883.10.20.24.2.3'] /entry/organizer[@classCode='CLUSTER']/reference[@typeCode='REFR']/externalDocument[@classCode='DOC']/	id	1..1	SHALL	12811-1 12812 12813-1	

XPath	Attribute / Element	Card.	Verb	CONF#	Fixed Value
/ClinicalDocument/component/structuredBody/component/section[templateId/@root = '2.16.840.1.113883.10.20.24.2.3'] /entry/organizer[@classCode='CLUSTER']/reference[@typeCode='REFR']/externalDocument[@classCode='DOC']	setId	0..1	SHOULD	12867-1 12812-2 12868-1	

SHALL contain at least one [1..*] eMeasure entry (CONF-HR:12978-1) such that it:

1. **SHALL** contain exactly one [1..1] organizer such that it:
 - a. **SHALL** contain exactly [1..1] @classCode="CLUSTER" cluster (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6) (CONF:12805)
 - b. **SHALL** contain exactly one [1..1] @moodCode="EVN" event (CodeSystem: ActMood 2.16.840.1.113883.5.1001) (CONF:12806).
 - c. **SHALL** contain exactly one [1..1] templateId eMeasure Reference QDM (templateId:2.16.840.1.113883.10.20.24.3.97) (CONF:13193).
 - d. **SHALL** contain exactly one [1..1] statusCode="completed" completed (CodeSystem: ActStatus 2.16.840.1.113883.5.14) (CONF:12807).
 - e. **SHALL** contain exactly one [1..1] reference (CONF-HR:12808-1) such that it:
 - i. **SHALL** contain exactly one [1..1] @typeCode="REFR" refers to (CodeSystem: HL7ActRelationshipType 2.16.840.1.113883.5.1002) (CONF:12809).
 - ii. **SHALL** contain exactly one [1..1] externalDocument[@externalDocument="DOC"] (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6) (CONF-HR:12810-1) such that it:
 1. **SHALL** contain exactly one [1..1] id (CONF-HR:12811-1) such that it:
 - a. **SHALL** contain exactly one [1..1] @root (CONF:12812). This ID **SHALL** equal the version specific identifier for eMeasure (i.e. QualityMeasureDocument/id) for Hospital Reporting System (CONF-HR:12813-1).
 2. **SHOULD** contain zero to one [0..1] setId (CONF-HR:12867-1) such that it:
 - a. **SHALL** contain exactly one [1..1] @root (CONF:12812-2). This setId **SHALL** equal the QualityMeasureDocument/setId which is the eMeasure version neutral id for Hospital Reporting System (CONF-HR:12868-1).

Figure 7: Measure Example

```

<entry>
  <organizer classCode="CLUSTER" moodCode="EVN">
    <!-- This is the templateId for Measure Reference -->
    <templateId root="2.16.840.1.113883.10.20.24.3.98"/>
    <!-- This is the templateId for eMeasure Reference QDM -->
    <templateId root="2.16.840.1.113883.10.20.24.3.97"/>
    <statusCode code="completed"/>
    <reference typeCode="REFR">
      <externalDocument classCode="DOC" moodCode="EVN">
        <!-- SHALL: This is the version specific identifier for eMeasure:
QualityMeasureDocument/id it is a GUID-->
        <id root="8a4d92b2-3887-5df3-0139-0c4e41594c98"/>
        <!-- SHOULD This is the title of the eMeasure -->
        <text>Median Time from ED Arrival to ED Departure for Admitted
ED Patients</text>

        <!-- SHOULD: setId is the eMeasure version neutral id -->
        <setId root="9a033274-3d9b-11e1-8634-00237d5bf174"/>
        <!-- This is the sequential eMeasure Version number -->
        <versionNumber value="1"/>
      </externalDocument>
    </reference>
  </organizer>
</entry>

```

5.7 Patient Data Constraints: Payer

The payer specifies the source of payment.

Table 12: Payer Constraints Overview

XPath	Attribute / Element	Card.	Verb	CONF#	Fixed Value
/ClinicalDocument/component/structuredBody/component/section/	entry	1..*	SHALL	14430-1	
/ClinicalDocument/component/structuredBody/component/section/entry /	observation	1..1	SHALL	14213 14214	
/ClinicalDocument/component/structuredBody/component/section/entry /observation/	templateId	1..1	SHALL	12561	2.16.840.1.1 13883.10.20 .24.3.55
/ClinicalDocument/component/structuredBody/component/section/entry /observation/	id	1..*	SHALL	12564	
/ClinicalDocument/component/structuredBody/component/section/entry /observation/	code	1..1	SHALL	12565 14029	48768-6
/ClinicalDocument/component/structuredBody/component/section/entry /observation/	value	1..1	SHALL	16710 16710-1	

SHALL contain at least one [1..*] payer entry (CONF-HR:14430-1) such that it:

1. **SHALL** contain exactly one [1..1] observation such that it:
 - a. **SHALL** contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass 2.16.840.1.113883.5.6) (CONF:14213).
 - b. **SHALL** contain exactly one [1..1] @moodCode="EVN" (CodeSystem: ActMood 2.16.840.1.113883.5.1001) (CONF:14214).
 - c. **SHALL** contain exactly one [1..1] templateId (CONF:12561) such that it:
 - i. **SHALL** contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.3.55" (CONF:12562).

- d. **SHALL** contain at least one [1..*] id (CONF:12564).
- e. **SHALL** contain exactly one [1..1] code (CONF:12565) such that it:
 - i. **SHALL** contain exactly one [1..1] @code="48768-6" Payment source (CodeSystem: LOINC 2.16.840.1.113883.6.1) (CONF:14029).
- f. **SHALL** contain exactly one [1..1] value such that it:
 - i. **SHALL** contain exactly one [1..1] @xsi:type="CD", where the @code **SHALL** be selected from ValueSet PHDSC Source of Payment Typology 2.16.840.1.114222.4.11.3591 DYNAMIC (CONF:16710). If payer value@code is Medicare, then patient id **SHALL** be Medicare HIC Number (CONF-HR: 16710-1). Refer to section 5.2.1 for details on HIC.

5.7.1 Payment Typology Value Set

The Payment Typology Value Set is as follows:

- Value Set –** PHDSC Source of Payment Typology 2.16.840.1.114222.4.11.3591 DYNAMIC
- Code System(s) –** Public Health Data Standards Consortium Source of Payment Typology (2.16.840.1.113883.3.221.5)
- Description –** Public Health Data Standards Consortium Source of Payment <http://www.phdsc.org/standards/pdfs/SourceofPaymentTypologyVersion5.0.pdf>.

Table 13: PHDSC Source of Payment Typology Value Set (Excerpt)

Code	Code System	Print Name
1		Medicare
11		Medicare (Managed Care)
111		Medicare HMO
112		Medicare PPO
113		Medicare POS

Figure 8: Payer Example

```
<entry typeCode="DRIV">
  <observation classCode="OBS" moodCode="EVN">
    <templateId root="2.16.840.1.113883.10.20.24.3.55"/>
    <id root="4ddf1cc3-e325-472e-ad76-b2c66a5ee164"/>
    <code code="48768-6" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Payment source"/>
    <statusCode code="completed"/>
    <value code="1" codeSystem="2.16.840.1.113883.3.221.5"
codeSystemName="Source of Payment Typology" displayName="Medicare"
sdct:valueSet="2.16.840.1.114222.4.11.3591" xsi:type="CD"/>
  </observation>
</entry>
```

Acronyms

This section describes the acronyms used in this document.

Table 14: Acronyms

Acronym	Literal Translation
CCN	CMS Certification Number
CDA	Clinical Document Architecture
CHPL	Certified Health IT Product List
CMS	Centers for Medicare & Medicaid Services
CQM	Clinical Quality Measure
DEC	Data Elements Catalog
DOB	Date of Birth
eCQM	Electronic Clinical Quality Measure
EHR	Electronic Health Record
HIC	Health Insurance Claim
HITECH	Health Information Technology for Economic and Clinical Health Act
HL7 V3	Health Level 7 Version 3
HQMF	Health Quality Measure Format
HQR	Hospital Quality Reporting
IPP	Initial Patient Population
MU	Meaningful Use

CMS XLC

Acronym	Literal Translation
NLM	National Library of Medicine
QRDA	Quality Reporting Document Architecture
TIN	Taxpayer Identification Number
VSAC	Value Set Authority Center
XML	Extended Mark-up Language

Referenced Documents

Table 15: Referenced Documents

Document Name	Document Number and/or URL	Issuance Date
HL7 Implementation Guide for CDA Release 2: Quality Reporting Document Architecture (QRDA) Category I Draft Standard for Trial Use Release 2 (US Realm)	Health Level 7 Standards, http://www.hl7.org/implement/standards/product_brief.cfm?product_id=35	July 2012, updated with December 21, 2012 errata
CMS Data Element Catalog from U.S. National Library of Medicine	Value Set Authority Center, https://vsac.nlm.nih.gov	
HIMSS Electronic Health Record Association - Continuity of Care Document (CCD) Quick Start Guide	HIMSS EHR Quick Start Guide Package, http://www.himssehra.org/docs/ccd_gsg.zip	
HITSP Quality Interoperability Specification	HITSP Quality Interoperability Specification Downloads, http://www.hitsp.org/ConstructSet_Details.aspx?&PrefixAlpha=1&PrefixNumeric=06	
National Quality Forum	National Quality Forum Website https://www.qualityforum.org	
NCQA > HEDIS & Quality Measurement	HEDIS & Quality Measurement Website, http://www.ncqa.org/tabid/59/Default.aspx	
International Health Terminology Standards Development Organization - SNOMED CT®	IHSTDO SNOMED CT Website, http://www.ihtsdo.org/snomed-ct	

Appendix A – HQR eMeasures

The following table lists all HQR eMeasures supported in the HITECH EHR Incentive Program Hospital eCQM Reporting.

Table 16: Hospital Quality Reporting eMeasures

Measure Name	CMS eCQM ID	NQF Number	Version-neutral eMeasure ID (setID)	Version-specific eMeasure ID December 2012	Version-specific eMeasure ID April 2013
ED1	55	0495	9a033274-3d9b-11e1-8634-00237d5bf174	8a4d92b2-3887-5df3-0139-0c4e41594c98	40280381-3d27-5493-013d-4d86b2b36480
ED2	111	0497	979f21bd-3f93-4cdd-8273-b23dfe9c0513	8a4d92b2-3887-5df3-0139-0c4e00454b35	40280381-3d27-5493-013d-4d8e4dc46570
STK2	104	0435	42bf391f-38a3-4c0f-9ece-dcd47e9609d9	8a4d92b2-37bf-6f1b-0137-cdadba302b85	40280381-3d27-5493-013d-4dca4b826ae4
STK3	71	0436	03876d69-085b-415c-ae9d-9924171040c2	8a4d92b2-3887-5df3-0139-013b0c87524a	40280381-3d61-56a7-013d-61a513f50150
STK4	91	0437	2838875a-07b5-4bf0-be04-c3eb99f53975	8a4d92b2-3887-5df3-0139-0c0d3d783133	40280381-3d61-56a7-013d-694c97db4155
STK5	72	0438	93f3479f-75d8-4731-9a3f-b7749d8bcd37	8a4d92b2-3887-5df3-0139-0c49fb8c4757	40280381-3d27-5493-013d-37e60ac03200
STK6	105	0439	1f503318-bb8d-4b91-af63-223ae0a2328e	8a4d92b2-37d1-f95b-0137-e776b0467baf	40280381-3d27-5493-013d-380ba9ce367c
STK8	107	0440	217fdf0d-3d64-4720-9116-d5e5afa27f2c	8a4d92b2-3a00-2a25-013a-0dd50ce621d8	40280381-3d61-56a7-013d-8477ce9d700a
STK10	102	0441	7dc26160-e615-4cc2-879c-75985189ec1a	8a4d92b2-3887-5df3-0139-01954afc63b2	40280381-3d27-5493-013d-4604d3d76bb8

CMS XLC

Measure Name	CMS eCQM ID	NQF Number	Version-neutral eMeasure ID (setID)	Version-specific eMeasure ID December 2012	Version-specific eMeasure ID April 2013
VTE1	108	0371	38b0b5ec-0f63-466f-8fe3-2cd20ddd1622	8a4d92b2-3887-5df3-0139-01a1d2c966bc	40280381-3d27-5493-013d-4be1467a5c5a
VTE2	190	0372	fa91ba68-1e66-4a23-8eb2-baa8e6df2f2f	8a4d92b2-3a00-2a25-013a-4640d11650cb	40280381-3d27-5493-013d-4bd0bac05a44
VTE3	73	0373	6f069bb2-b3c4-4bf4-adc5-f6dd424a10b7	8a4d92b2-3887-5df3-0139-0c4e6d2b4d6b	40280381-3cd1-4954-013c-f32c3aa00c8f
VTE4	109	0374	bcce43dd-08e3-46c3-bfdd-0b1b472690f0	8a4d92b2-3887-5df3-0139-01959fb76498	40280381-3cd1-4954-013d-12b735b91c26
VTE5	110	0375	7fe69617-fa28-4305-a2b8-ceb6bcd9693d	8a4d92b2-3887-5df3-0138-9b2eaba7321d	40280381-3d27-5493-013d-460f43c16cb7
VTE6	114	0376	32cfc834-843a-4f45-b359-8e158eac4396	8a4d92b2-3887-5df3-0139-018ce6f1622a	40280381-3d27-5493-013d-477b9cfb13af
AMI2	100	0142	bb481284-30dd-4383-928c-82385bbf1b17	8a4d92b2-3887-5df3-0139-0d01c6626e46	40280381-3d27-5493-013d-4bfbd29a5f66
AMI7a	60	0164	909cf4b4-7a85-4abf-a1c7-cb597ed1c0b6	8a4d92b2-3887-5df3-0139-11b262260a92	40280381-3d27-5493-013d-40ec9fcf4a60
AMI8a	53	0163	84b9d0b5-0caf-4e41-b345-3492a23c2e9f	8a4d92b2-3887-5df3-0139-0d08a4be7be6	40280381-3d27-5493-013d-4beba8855deb
AMI10	30	0639	ebfa203e-acc1-4228-906c-855c4bf11310	8a4d92b2-3887-5df3-0139-0d071ee37793	40280381-3d27-5493-013d-5a665e26122a
SCIPINF1	171	0527	d09add1d-30f5-462d-b677-3d17d9ccd664	8a4d92b2-39ca-af4b-0139-dfaaffd96efe	40280381-3d27-5493-013d-4b637cff42a3

CMS XLC

Measure Name	CMS eCQM ID	NQF Number	Version-neutral eMeasure ID (setID)	Version-specific eMeasure ID December 2012	Version-specific eMeasure ID April 2013
SCIPINF2	172	0528	feea3922-f61f-4b05-98f9-b72a11815f12	8a4d92b2-37d1-f95b-0137-e1e272994b3f	40280381-3d61-56a7-013d-c5ef46c917f4
SCIPINF9	178	0453	d78ce034-8288-4012-a31e-7f485a74f2a9	8a4d92b2-3b79-4ce2-013b-950ef1a92c3f	40280381-3d27-5493-013d-4b6c7d1e455d
BF-Exclusive Breast Milk Feeding	9	0480	7d374c6a-3821-4333-a1bc-4531005d77b8	8a4d92b2-37d1-f95b-0137-e726ad2f7415	40280381-3d27-5493-013d-4dc3477e6961
ED3	32	0496	3fd13096-2c8f-40b5-9297-b714e8de9133	8a4d92b2-37d1-f95b-0137-dd4b0eb62de6	40280381-3d27-5493-013d-61073da32a30
EHDI_1a	31	1354	0924fbae-3fdb-4d0a-aab7-9f354e699fde	8a4d92b2-3887-5df3-0139-12364ae9126f	40280381-3d61-56a7-013d-891538fb7b05
Healthy Term Newborn	185	0716	ff796fd9-f99d-41fd-b8c2-57d0a59a5d8d	8a4d92b2-3a00-2a25-013a-295ed21c463c	40280381-3d27-5493-013d-5c2858ec1933
HMPC	26	0338	e1cb05e0-97d5-40fc-b456-15c5dbf44309	8a4d92b2-37bf-6f1b-0137-ccd612a40d0e	8a4d92b2-37bf-6f1b-0137-ccd612a40d0e
PC01	113	0469	fd7ca18d-b56d-4bca-af35-71ce36b15246	8a4d92b2-3887-5df3-0139-01965ecf65be	40280381-3d27-5493-013d-4dbf0566683c
PN6	188	0147	8243eae0-bbd7-4107-920b-fc3db04b9584	8a4d92b2-3ae8-f461-013b-708c1d942859	40280381-3d61-56a7-013d-a31d2b2f57ea

Record of Changes

Table 17: Record of Changes

Version Number	Date	Author/Owner	Description of Change
1.0	06/28/13	CSC/Anand Krishnamurthy	Initial Version
2.0	10/25/13	CSC/Estelle Noone	Updated for HQR 5.0
2.1	11/14/13	CSC/Estelle Noone	Minor formatting updates made
2.2	2/21/2014	Telligen/Stephanie Wilson	Updated for HQR 6.0