USING THE WEBEX Q+A FEATURE

All lines are placed on mute to block out background noises. However, you can send in questions to the panelists via the “Q&A” feature.

Follow the directions below to use the “Q&A” feature:

1. Move your mouse over the WebEx Navigation Panel at the top of your screen. The menu will drop down.

2. Click the Q&A icon. The Q&A panel will display on your screen.

3. Click the drop-down arrow next to “Ask:” and select All Panelists.

4. Type your question, and click the Send button. Your question will be viewed and addressed by a Subject Matter Expert.
CMS 2015 QRDA Submissions for Eligible Hospitals / Critical Access Hospitals and Eligible Professionals

August 12, 2015

Rick Geimer

Lantana Consulting Group
Presenter Biography

Rick Geimer

- Chief Technology Officer, Lantana Consulting Group
- Co-chair, HL7 Structured Document Working Group
- HL7 CDA R2 Certified Specialist
- Co-editor of Consolidated CDA (C-CDA) and other specifications
Agenda

• Submission statistics for Hospital eCQM Data
• Submitting 2014 CMS Quality Measures using QRDA Category I for the 2015 reporting year
• Submitting Electronic Clinical Quality Measure (eCQM) Hospital Test Files
• Common CMS QRDA Submission Errors
• Appendix
  • Pre-Submission QRDA Debugging Approaches
  • Test Submissions Utilizing the CMS Receiving System and Reports
  • Known Issues with Error Messages
  • Eligible Hospital eCQM Version Specific ID’s
Statistics for Hospital eCQM Data Submissions
## Hospital eCQM Data Submission Statistics

<table>
<thead>
<tr>
<th>Submission Year</th>
<th>Total Files</th>
<th>Files that passed validation</th>
<th>Successful Submitters</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>237097</td>
<td>54795</td>
<td>14</td>
</tr>
<tr>
<td>2015</td>
<td>82481</td>
<td>4495</td>
<td>17</td>
</tr>
</tbody>
</table>
Submitting 2015 Quality Measures using QRDA Category I
2015 Submission Changes Overview

• The Hospital eCQM Receiving System implementation has gone through several iterations in 2015, starting with HQR 6.0, updated to 7.0, and now using 8.0.

• QRDA files previously considered valid under previous versions will no longer pass validation without some modifications.
## 2015 Submission Changes Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>CMS Release</th>
<th>Status</th>
</tr>
</thead>
</table>
| Jan 1, 2015  | HQR 6.0 with Production Update to add some HQR 7.0 validations | • 2014 eCQMs accepted and validated, Measure results not calculated  
• QRDA Category 1 must validate to HL7 Schematron - (R2) and  
• Combined CMS Supplemental IG Validation (pub 07/24/2014) |
| Apr 30, 2015 | HQR 7.0 Phase 2                   | • QRDA Category 1 must validate to HL7 Schematron - (R2) + Errata (pub October 2014)  
• 2014 eCQM calculated results become available to submitters |
| June 19, 2015| HQR 8.0                          | • The Reporting Parameter Effective Date Range must align with one of the Program's CY Discharge Quarters  
• At least one Encounter Discharge must be within the Discharge Reporting Period  
• Patient Characteristic Payer must be present  
• Will recognize duplicate files and use the most recent when two accepted Production files match on all of the following: CMS Program Name, CCN, Patient ID, and QRDA Reporting Parameter Section date range |
Categories of Changes

The changes for 2015 fall into three categories:

• CMS updates for HITECH Release 7.0.
  • Updates are from the 2015 CMS Implementation Guide for QRDA, listed below:

• CMS updates for HITECH Release 8.0
  • Updates are from the Addendum to 2015 CMS QRDA Implementation Guide for Eligible Professional Programs and Hospital Quality Reporting (HQR), listed below:

• QRDA base specification errata.
  • Additional changes were made to the CMS validation logic to incorporate errata to the QRDA standard itself.
  • http://www.hl7.org/dstucomments/showdetail.cfm?dstuid=80
CMS Updates for HITECH 7.0
Clinical Document Template ID

2015 QRDA submissions require a new template ID.

This ID is in addition to those required by the QRDA base specification.

The templateId/@root attribute of the new ID must be “2.16.840.1.113883.10.20.24.1.3”.

Error Message if omitted:

- ERROR: SHALL contain exactly one [1..1] templateId (CONF:CMS_0001) such that it SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.24.1.3" (CONF:CMS_0002).

```xml
<ClinicalDocument ...>
  <realmCode code="US"/>
  <typeId root="2.16.840.1.113883.1.3" extension="POCD_HD000040"/>
  <templateId root="2.16.840.1.113883.10.20.22.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.24.1.1"/>
  <templateId root="2.16.840.1.113883.10.20.24.1.2"/>
  <templateId root="2.16.840.1.113883.10.20.24.1.3"/>
  ...
</ClinicalDocument>
```
The language code changed from “en-US” (US English) to simply “en” (English).

Ensure that languageCode/@code equals “en”.

Error Message if omitted or incorrect:

- ERROR: This languageCode SHALL contain exactly one [1..1] @code="en" English (CodeSystem: Language 2.16.840.1.113883.6.121) (CONF:CMS_0010).

Old

<languageCode code="en-US"/>

New

<languageCode code="en"/>
Patient Identifier Number

An additional patient identifier is required under recordTarget/patientRole.

The generic terms Patient Identifier Number and EHR Patient ID are used in the CMS QRDA Implementation Guide instead of medical record number or MRN.

Error Message if omitted:

- ERROR: This patientRole SHALL contain exactly one [1..1] id such that it SHALL contain exactly one [1..1] Patient Identifier Number (CONF:CMS_0007)

```xml
<recordTarget>
  <patientRole>
    <!-- This is the patient's Medical HIC number -->
    <id extension="111223333A" root="2.16.840.1.113883.4.572"/>
    <!-- This is the patient identifier number -->
    <id extension="EXAMPLE-ID" root="EXAMPLE-OID"/>
    ...
  </patientRole>
</recordTarget>
```

Note: You must replace EXAMPLE-ID and EXAMPLE-OID above with values appropriate for your system. The extension contains the patient ID in your system, and the root attribute contains the Object Identifier (OID) for that set of IDs.

OIDs can be obtained and searched from the HL7 OID registry: [http://www.hl7.org/oid/](http://www.hl7.org/oid/)

2015 QRDA Submissions require an informationRecipient element with the appropriate program identified.

Error Message if omitted:
- ERROR: SHALL contain exactly one [1..1] informationRecipient (CONF:CMS_0023).

Note: you must replace the contents of the id/@extension attribute above with the appropriate code for your program. Legal values are shown in the table to the right.

<table>
<thead>
<tr>
<th>Program</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>PQRS Meaningful Use Individual</td>
<td>PQRS_MU_INDIVIDUAL</td>
</tr>
<tr>
<td>PQRS Meaningful Use Group</td>
<td>PQRS_MU_GROUP</td>
</tr>
<tr>
<td>Pioneer ACO</td>
<td>PIONEER_ACO</td>
</tr>
<tr>
<td>Hospital Quality Reporting for the EHR Incentive Program</td>
<td>HQR_EHR</td>
</tr>
<tr>
<td>Hospital Quality Reporting for the Inpatient Quality Reporting Program</td>
<td>HQR_IQR</td>
</tr>
<tr>
<td>Hospital Quality Reporting for the EHR Incentive Program and the IQR Program</td>
<td>HQR_EHR_IQR</td>
</tr>
</tbody>
</table>
CMS Updates for HITECH 8.0
Reporting Parameter Date and CY Discharge Quarters

The Reporting Parameter Effective Date Range must align with one of the program's calendar year (CY) discharge quarters.

The discharge quarters can be found in section 2.4.1 of the Addendum to 2015 CMS QRDA Implementation Guide for Eligible Professional Programs and Hospital Quality Reporting (HQR).


<table>
<thead>
<tr>
<th>Discharge Reporting Period</th>
<th>Submission Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1 – March 31, 2015 (Q1)</td>
<td>November 30, 2015</td>
</tr>
<tr>
<td>April 1 – June 30, 2015 (Q2)</td>
<td>November 30, 2015</td>
</tr>
<tr>
<td>July 1 – September 30, 2015 (Q3)</td>
<td>November 30, 2015</td>
</tr>
<tr>
<td>October 1 – December 31, 2015 (Q4)</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Encounter Discharge within Reporting Period

- At least one Encounter Discharge must be within the Discharge Reporting Period

<table>
<thead>
<tr>
<th>Discharge Reporting Period</th>
<th>Submission Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1 – March 31, 2015 (Q1)</td>
<td>November 30, 2015</td>
</tr>
<tr>
<td>April 1 – June 30, 2015 (Q2)</td>
<td>November 30, 2015</td>
</tr>
<tr>
<td>July 1 – September 30, 2015 (Q3)</td>
<td>November 30, 2015</td>
</tr>
<tr>
<td>October 1 – December 31, 2015 (Q4)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<encounter classCode="ENC" moodCode="EVN">
  &lt;templateId root="2.16.840.1.113883.10.20.22.4.49"/&gt;
  &lt;templateId root="2.16.840.1.113883.10.20.24.3.23"/&gt;
  &lt;effectiveTime&gt;
    <!-- Attribute: admission datetime -->
    &lt;low value="20141225090000+0500"/&gt;
    <!-- Attribute: discharge datetime -->
    &lt;high value="20150101103000+0500"/&gt;
  &lt;/effectiveTime&gt;
&lt;/encounter&gt;

<encounter classCode="ENC" moodCode="EVN">
  &lt;templateId root="2.16.840.1.113883.10.20.22.4.49"/&gt;
  &lt;templateId root="2.16.840.1.113883.10.20.24.3.23"/&gt;
  &lt;effectiveTime&gt;
    <!-- Attribute: admission datetime -->
    &lt;low value="20141225090000+0500"/&gt;
    <!-- Attribute: discharge datetime -->
    &lt;high value="20150101103000+0500"/&gt;
  &lt;/effectiveTime&gt;
&lt;/encounter&gt;
Eligible Professional Requirements for 2015

- Number of measures and domains
  - Report on 9 Clinical Quality Measures (CQMs)
  - Report for at least 3 different domains.
- Amount of data to submit
  - A full year (Jan – Dec) to qualify for the Medicare EHR Incentive Program and PQRS.
- Submission formats
  - For MU EHR incentive programs, report electronically via the PQRS Portal using QRDA I or QRDA III.
  - For PQRS Reporting, report electronically via the PQRS Portal using QRDA I or QRDA III.
- Group reporting options are also available using the PQRS GPRO web interface, in addition to registry and EHR options.
- Highlighted 2015 Changes (not a complete list of all changes)
  - Only valid UUIDs can be submitted for measures, populations and reporting stratum.
  - The same measure cannot be submitted more than once.
  - The same population cannot be submitted more than once.
  - Reporting period in QRDAs must be within the reporting period range
  - Patient Characteristic Payer template now required
  - Performance Rate must be formatted as a real number less than 1.
UUIDs (aka GUIDs) must be valid.

```xml
<reference typeCode="REFR">
<externalDocument classCode="DOC" moodCode="EVN">
  <id root="bad-uuid"/>
  ...
</externalDocument>
</reference>

<reference typeCode="REFR">
<externalDocument classCode="DOC" moodCode="EVN">
  <!-- only include the same ID once -->
  <id root="8a4d92b2-3887-5df3-0139-013b0c87524a"/>
  ...
</externalDocument>
</reference>
```
Duplicate Measure and Population IDs

QRDA Category I submissions can have multiple measure, population, and stratum IDs but, in 2014, CMS didn’t check to make sure that the ID was not provided more than once. In 2015 CMS requires measure, population, and stratum IDs to be unique.

```xml
<reference typeCode="REFR"
<externalDocument classCode="DOC" moodCode="EVN">
  <id root="8a4d92b2-3887-5df3-0139-013b0c87524a"/>
  ...
</externalDocument>
</reference>

<reference typeCode="REFR"
<externalDocument classCode="DOC" moodCode="EVN">
  <id root="8a4d92b2-3887-5df3-0139-013b0c87524a"/>
  ...
</externalDocument>
</reference>

<reference typeCode="REFR"
<externalDocument classCode="DOC" moodCode="EVN">
  <!-- only include the same ID once -->
  <id root="8a4d92b2-3887-5df3-0139-013b0c87524a"/>
  ...
</externalDocument>
</reference>
```
The Reporting Period date must be within the current reporting period range i.e. January 1st 2015 through December 31st 2015.

<act classCode="ACT" moodCode="EVN">
<templateId root="2.16.840.1.113883.10.20.17.3.8"/>
<id root="3d7c11cf-b01b-4527-a704-c098c162779d"/>
<code code="252116004" codeSystem="2.16.840.1.113883.6.96" displayName="Observation Parameters"/>
<effectiveTime>
  <low value="20110101"/>
  <high value="20111231"/>
</effectiveTime>
</act>

<act classCode="ACT" moodCode="EVN">
<templateId root="2.16.840.1.113883.10.20.17.3.8"/>
<id root="3d7c11cf-b01b-4527-a704-c098c162779d"/>
<code code="252116004" codeSystem="2.16.840.1.113883.6.96" displayName="Observation Parameters"/>
<effectiveTime>
  <low value="20150101"/>
  <high value="20151231"/>
</effectiveTime>
</act>
Patient Characteristic Payer

The Patient Data section must now contain at least 2 entries, and one of them must be the Patient Characteristic Payer template, identifying the source of payment.

```
<section>
  <templateId root="2.16.840.1.113883.10.20.17.2.4"/>
  <templateId root="2.16.840.1.113883.10.20.24.2.1"/>
  <code code="55188-7" codeSystem="2.16.840.1.113883.6.1"/>
  <title>Patient Data</title>
  <entry>
  ...
  </entry>
  <entry>
    <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"/>
      <effectiveTime>
        <low value="20110303"/>
        <high value="20160303"/>
      </effectiveTime>
      <value xsi:type="CD" code="1" codeSystem="2.16.840.1.113883.3.221.5" codeSystemName="Source of Payment Typology" displayName="Medicare" sdtc:valueSet="2.16.840.1.114222.4.11.3591"/>
    </observation>
  </entry>
</section>
```
Performance rate should be specified as REAL number and value should be less than or equal to 1.0.

```xml
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.27.3.14"/>
  <templateId root="2.16.840.1.113883.10.20.27.3.25"/>
  <code code="72510-1" codeSystem="2.16.840.1.113883.6.1" displayName="Performance Rate" codeSystemName="2.16.840.1.113883.6.1"/>
  <statusCode code="completed"/>
  <value xsi:type="INT" value="2"/>
  ...
</observation>

<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.27.3.14"/>
  <templateId root="2.16.840.1.113883.10.20.27.3.25"/>
  <code code="72510-1" codeSystem="2.16.840.1.113883.6.1" displayName="Performance Rate" codeSystemName="2.16.840.1.113883.6.1"/>
  <statusCode code="completed"/>
  <value xsi:type="REAL" value="0.833"/>
  ...
</observation>
```
QRDA Base Specification
Errata
Measure Version Specific Identifier

The version specific identifier of an eMeasure must be present in externalDocument/id.

The correct identifier for the measure must be in the extension attribute.

The root attribute is fixed to 2.16.840.1.113883.4.738.

Error Message if omitted:
- ERROR: This externalDocument SHALL contain exactly one [1..1] id (CONF:12811) such that it SHALL contain exactly one [1..1] @root="2.16.840.1.113883.4.738" (CONF:12812). SHALL contain exactly one [1..1] @extension (CONF:12813).

```xml
<externalDocument classCode="DOC" moodCode="EVN">
  <id root="2.16.840.1.113883.4.738" extension="EXAMPLE-ID"/>
  ...
</externalDocument>
```

Note: you must replace EXAMPLE-ID above with the correct version specific id for the measure on which you are reporting.

- For example, the version specific ID for the 2014 eCQM update for the 2015 Reporting Year for CMS 55 (ED-1) is 40280381-43db-d64c-0144-64cb12982d97

Those IDs can be found in the measures themselves, which can be downloaded from the eCQM Library:


Also see the complete list in the Appendix slides.
The Reporting Parameters Act template now requires one or more IDs.

The ID may be a GUID/UUID, or an appropriate nullFlavor can be used (NI is recommend).

Error Message if omitted:
- ERROR: SHALL contain at least one [1..*] id (CONF:26549).

```xml
<act classCode="ACT" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.17.3.8"/>
  <!-- Example using a UUID -->
  <id root="f3f35288-643b-41d3-b4d9-f5e557c12278"/>
  <!-- Example using a nullFlavor -->
  <id nullFlavor="NI"/>
  ...
</act>
```

Note: If you use a UUID, you must generate a unique one for each QRDA file.
Payer Effective Time

The Patient Characteristic Payer template now requires an effectiveTime element.

The low element must be present, and the high element should be present if appropriate (e.g. the coverage has expired or will expire on a known date).

Error Message if omitted:

- ERROR: SHALL contain exactly one [1..1] effectiveTime (CONF:26933).
- ERROR: This effectiveTime SHALL contain exactly one [1..1] low (CONF:26934).

```xml
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.55"/>
  ...
  <effectiveTime>
    <low value="20110303"/>
    <high value="20160303"/>
  </effectiveTime>
  ...
</observation>
```
The Reason template now requires an ID.

The ID may be a GUID/UUID, or an appropriate nullFlavor can be used (NI is recommend).

Error Message if omitted:

- ERROR: SHALL contain at least one [1..*] id (CONF:26998).

```xml
<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.24.3.88"/>
  <!-- Example using a UUID -->
  <id root="f3f35288-643b-41d3-b4d9-f5e557c12278"/>
  <!-- Example using a nullFlavor -->
  <id nullFlavor="NI"/>
  ...
</observation>
```

Note: If you use a UUID, you must generate a unique one for each QRDA file.
Submitting Electronic Clinical Quality Measure (eCQM) Hospital Test Files
Hospital eCQM Receiving System Readiness

- Test QRDA Category I Release 2 files can be submitted and validated against 2015 CMS QRDA constraints

- Submitting test files allows users to validate file structure against the CMS Hospital eCQM Receiving System

- Reports are available to identify errors in files and allow for corrections prior to submission of production data

- **Access HQR system through the *QualityNet Secure Portal***
  - Allows for submission of test and production files
  - Provides complete file validation and measure calculation

- Additional education and training will be provided in the coming months
Common CMS QRDA Submission Errors
Errors Discussed in this Presentation

This presentation addresses errors in the following categories:

- QRDA Document Format
- CCN Validation
- Service Event and Performer
- Terminology
QRDA Document Format Error

• Error Messages
  ▪ The document does not conform to QRDA document formats accepted by CMS.
  ▪ Data submitted is not a well formed QRDA XML

• Error Meaning
  ▪ The submitted document is either not a well-formed XML file, or is an XML file but does not conform to the QRDA XML Schema provided by HL7.
It is not legal to submit an MS Word document, HTML, PDF, or a XML file that does not comply with the CDA_SDTC.xsd schema.

Also, XML files must be well-formed:

Submit a well-formed and schema valid QRDA XML file.

The last portion of this presentation describes how to validate against the QRDA schemas before submission.
CCN Validation Errors

• Error Messages

  ▪ ERROR: CCN (NULL) cannot be validated.

  ▪ ERROR: This representedCustodianOrganization SHALL contain exactly one [1..1] id (CONF:CMS_0016) such that it SHALL contain exactly one [1..1] @root='2.16.840.1.113883.4.336' CMS Certification Number (CONF:26960). SHALL contain exactly one [1..1] @extension (CONF:26959).

  ▪ ... etc.

• Error Meaning

  ▪ The document must contain a valid CMS Certification Number (CCN) as an ID in the representedCustodianOrganization element of the QRDA header.
CCN Error Examples

The examples to the right show several invalid CCNs:

• CCN is missing entirely.

• The id has the CCN root, but is missing the extension with the organization’s actual CCN.

• An invalid CCN e.g., “ABC123” was sent instead of the organization’s actual CCN.
CCN Error Correction

The examples to the right show corrected CCNs:

- The id has the CCN root and the extension with the organization’s CCN.

- **Note:** “YOUR-CCN” is a placeholder that needs to be replaced with your actual CCN. If you send the literal string “YOUR-CCN,” it will fail.

- **Note:** The @extension attribute is the correct place for the CCN (and also TIN or NPI in their respective elements) even though this is not clearly explicit in the QRDA base IG.

```xml
<custodian>
  <assignedCustodian>
    <representedCustodianOrganization>
      <!--Submitters’ CCN -->
      <id root="2.16.840.1.113883.4.336" extension="YOUR-CCN"/>
    </representedCustodianOrganization>
  </assignedCustodian>
</custodian>
```

**Note:** The dummy CCN (shown below) can be used only by vendors and only for Test Data submissions.

```xml
<id root="2.16.840.1.113883.4.336" extension="800890"/>
```
Service Event Errors

• Error Messages
  ▪ ERROR: SHALL contain exactly one [1..1] documentationOf (CONF:CMS_0017) such that it SHALL contain exactly one [1..1] serviceEvent (CONF:16580).
  ▪ ERROR: This serviceEvent SHALL contain exactly one [1..1] @classCode="PCPR" Care Provision (CONF:16581).
  ▪ ERROR: This serviceEvent SHALL contain at least one [1..*] performer (CONF:16583).
  ▪ ...etc.

• Error Meaning
  ▪ QRDA documents must record the service event (the main act being documented). In this case, it is the provision of care over a period of time. The care providers (aka performers) are recorded within the service event.
Service Event Error Examples

The example to the right shows an invalid serviceEvent:

- The serviceEvent is missing the classCode attribute.
- The performer has the wrong value in the typeCode attribute.
- The performer is missing an assignedEntity element containing a representedOrganization.

```xml
<documentationOf typeCode="DOC">
  <serviceEvent>
    <effectiveTime>
      <low value="20100601"/>
      <high value="20100915"/>
    </effectiveTime>
    <performer typeCode="PERFORMER">
      <time>
        <low value="20020716"/>
        <high value="20070915"/>
      </time>
    </performer>
    ...
  </serviceEvent>
</documentationOf>
```
Service Event Error Partial Correction

The example to the right shows an invalid serviceEvent:

- The classCode attribute is now present and set to PCPR (care provision)
- The performer has the correct typeCode.
- The assignedEntity element is present.
- The assignedEntity is missing the provider’s NPI.
- The representedOrganization is missing the Tax ID Number.
Service Event Error Correction

The example to the right shows a corrected service event:

- The assignedEntity contains the provider’s NPI.
- The representedOrganization contains the Tax ID Number.

```xml
<documentationOf typeCode="DOC">
  <serviceEvent classCode="PCPR">
    <effectiveTime>
      <low value="20100601"/>
      <high value="20100915"/>
    </effectiveTime>
    <performer typeCode="PRF">
      <time>
        <low value="20020716"/>
        <high value="20070915"/>
      </time>
      <assignedEntity>
        <id root="2.16.840.1.113883.4.6" extension="111111111"/>
        <code code="207QA0505X" displayName="Adult Medicine" codeSystem="2.16.840.1.113883.6.101" codeSystemName="Healthcare Provider Taxonomy"/>
      </assignedEntity>
      <representedOrganization>
        <id root="2.16.840.1.113883.4.2" extension="1234567"/>
        <id root="2.16.840.1.113883.4.336" extension="54321"/>
      </representedOrganization>
    </performer>
  </serviceEvent>
</documentationOf>
```
Service Event Workaround (no NPI or TIN)

For hospitals that do not have a NPI or TIN, the id elements are still required, but replace the extension attribute with a nullFlavor attribute set to NA instead.

- The provider’s NPI is null.
- The Tax ID Number is null.

```xml
<documentationOf typeCode="DOC">
  <serviceEvent classCode="PCPR">
    <effectiveTime>
      <low value="20100601"/>
      <high value="20100915"/>
    </effectiveTime>
    <performer typeCode="PRF">
      <time>
        <low value="20020716"/>
        <high value="20070915"/>
      </time>
      <assignedEntity>
        <id root="2.16.840.1.113883.4.6" nullFlavor="NA"/>
        <code code="207QA0505X" displayName="Adult Medicine" codeSystem="2.16.840.1.113883.6.101" codeSystemName="Healthcare Provider Taxonomy"/>
        <representedOrganization>
          <id root="2.16.840.1.113883.4.2" nullFlavor="NA"/>
          <id root="2.16.840.1.113883.4.336" extension="54321"/>
        </representedOrganization>
      </assignedEntity>
    </performer>
  </serviceEvent>
</documentationOf>
```
Terminology Errors

• Error Messages
  - ERROR: Where the clinical statement codes SHALL contain the @sdtc:valueSet extension to reference the value set from which the supplied code was drawn for templateId/@root='...' (CONF:...).
  - ERROR: This patient SHALL contain exactly one [1..1] ethnicGroupCode, which SHALL be selected from ValueSet Ethnicity Value 2.16.840.1.114222.4.11.837 DYNAMIC (CONF:CMS_0015).

• Error Meaning
  - Various sections of a QRDA have specific requirements for which terminologies and value sets are used, and where the codes must go in the document.
  - QRDA documents must also include an sdtc:valueSet extension element in certain sections.
Looking up Value Sets OIDs in the Specifications

Find the table or conformance statement in the CMS QRDA specifications appropriate for the information you are trying to send. Typically there is a value set OID present.

The OID for the Ethnicity value set is: 2.16.840.1.114222.4.11.837
Downloading Value Sets from VSAC

VSAC = Value Set Authority Center

https://vsac.nlm.nih.gov/

You will need to register and be approved for a UMLS account before you can download files.

Once you have a login, select an appropriate download, such as “2014 eCQM Value Sets for Eligible Professionals (EP)” Sorted by value set name in Excel format.
Looking up Value Sets in the VSAC Download

- Search for the value set OID you found in the CMS guide.

- Example: Legal codes ethnicity are
  - 2135-2 (Hispanic or Latino)
  - 2186-5: (Not Hispanic or Latino)

- Be sure to note the code system OID, which is different from the value set OID.
Terminology Error Examples

The example to the right shows two invalid ethnic group codes.

- The `ethnicGroupCode` element is missing entirely.

- The `ethnicGroupCode` element is present but empty.

```xml
<patient>
  ...
  <raceCode code="2106-3"
    codeSystem="2.16.840.1.113883.6.238"
    codeSystemName="Race & Ethnicity - CDC"
    displayName="White"/>
  <guardian>...</guardian>
  ...
</patient>

<patient>
  ...
  <ethnicGroupCode/>
  <guardian>...</guardian>
  ...
</patient>
```
Terminology Error Partial Correction

The example to the right shows one invalid ethnic group code.

- The ethnicGroupCode element is present populated, but uses an invalid code and has the value set OID in the codeSystem attribute.

```xml
<patient>
  ...
  <ethnicGroupCode code="Not Hispanic or Latino" codeSystem="2.16.840.1.114222.4.11.837" />
  ...
</patient>
```
Terminology Error Correction

The example to the right shows one valid ethnic group code.

- The `ethnicGroupCode` element is fully specified with a valid code and code system.

```xml
<patient>
  ...
  <ethnicGroupCode code="2186-5" codeSystem="2.16.840.1.113883.6.238"
  displayName="Not Hispanic or Latino"/>
  ...
</patient>
```
Adding the sdtc:valueSet Extension

It is legal to use the sdtc:valueSet on any coded types that are bound to a valueSet. Some sections require that extension to be present.

- The previous example has been updated to show the ethnicity value set OID added via the sdtc:valueSet extension.

```xml
<patient>
  ...
  <ethnicGroupCode code="2186-5"
      codeSystem="2.16.840.1.113883.6.238"
      displayName="Not Hispanic or Latino"
      sdtc:valueSet="2.16.840.1.114222.4.11.837"/>
  ...
</patient>
```
Terminology Work Arounds – Null Flavors

- Sometimes implementers need to be able to say “I don’t have any information”.

- This is done using the nullFlavor attribute.

- The default nullFlavor is NI, for “No information”. Others can be found in the QRDA specifications if needed.

```xml
<patient>
  ...
  <ethnicGroupCode nullFlavor="NI"/>
  ...
</patient>
```
QRDA Debugging Approaches
Debugging QRDA Files Before Submission

The best way to prevent submission errors is to validate your QRDA documents before submitting them.

There are two primary validation steps all implementers should perform locally:

- Validate against the QRDA XML Schema from HL7
- Validate against the QRDA Schematron File from HL7

Additionally, QRDA files may be submitted as Test Submissions using the operational CMS Hospital eCQM Reporting System (https://www.qualitynet.org).

Note: View Appendix slides for information on validating using HL7 tools.
Pre-Submission Validation Application (PSVA)

PSVA is a client-side application under development that offers vendors, hospitals, and providers a tool for validating QRDA files in their own environment prior to submitting them to CMS.

Benefits include:

- Reduces CMS processing
- Less reprocessing of the same file
- Reduces files stored by CMS
- CMS retains all files submitted
- Reduces error notification response times
- Users get feedback prior to submission to CMS

Timeline:

- Pilot Application is currently available for download in the Secure File Transfer (SFT) section of qualitynet.org
- Full release of application is scheduled for January 2016

Getting the PSVA:

- Implementers with a QualityNet login can download PSVA from the Secure File Transfer (SFT) section of qualitynet.org.
- Users must have the EHR Data Upload role assigned to QualityNet Account for the Pilot Application
CMS Validation Resources

- CMS strongly encourages vendors and hospitals to continue working toward successful submission of eCQM data.

- Submit test files through the Hospital eCQM Receiving System (QualityNet Secure Portal)

- Sign-up for the Hospital Reporting EHR listserve and participate in training opportunities

  http://www.qualitynet.org/dcs/ContentServer?pagename=QnetPublic/ListServe/Register
Questions?
Resources

General questions about submitting test and production files:
QualityNet HelpDesk - Qnetsupport@hcqis.org
1.866.288.8912   7 a.m.-7 p.m. CT Monday through Friday

The JIRA – ONC Project Tracking website (http://oncprojectracking.org/) is a resource to submit questions for the following:
• issues identified with eCQM logic;
• reviewing FAQs;
• obtaining clarification on specifications;
• asking questions regarding CQM certification;
• submitting questions and/or comments about the Combined QRDA Implementation Guide for 2015; and
• questions regarding the EHR Incentive Program.
Appendix
Appendix A:
HL7 QRDA Package
Downloading the HL7 QRDA Package

http://www.hl7.org/dstucomments/

- Search for “QRDA.”
- Go to the row for Category 1 (currently the 2nd search result).
- Click the download link.
Navigating the HL7 QRDA Package

The ZIP file from HL7 contains several files and folders.

The Schema folder contains the QRDA XML Schema.

The Schematron folder contains the QRDA Schematron file and related vocabulary.
Navigating to the QRDA XML Schema

- The main XML Schema file is called CDA_SDTC.xsd.
  - The file is in Schema/CDA/infrastructure/cda.
  - This file is not standalone and is not safe to move by itself, as it references other files in the Schema directory of the QRDA package.
  - If you need to move the schema, move the entire Schema folder.
Viewing the QRDA XML Schema

Most XML Editors allow you to open XML Schema files in a graphical view.

This can be very helpful as it shows which elements and attributes are allowed by the schema, and the order in which the elements must appear.
Associating a QRDA file with the Schema

- To associate a QRDA file with the QRDA XML Schema, add an xsi:schemaLocation attribute to the ClinicalDocument element at the root of the QRDA file.

- The value of the attribute is the relative or absolute path to the CDA_SDTC.xsd file.

```xml
 xmlns:sdtc="urn:hl7-org:sdtc"
 xsi:schemaLocation="urn:hl7-org:v3 Schema/CDA/information/cda/CDA_SDTC.xsd"
>
...
</ClinicalDocument>
```
Validating Against the QRDA XML Schema

Open the QRDA file in an XML editor that supports XML Schema and validate the QRDA.

Correct any errors it reports and validate again.

The example to the right shows validation in Oxygen XML Editor.
Navigating to the QRDA Schematron Schema

- The main XML Schema file is called “QRDA Category I Release 2.sch.”
  - This file is not standalone and is not safe to move alone.
  - It references the voc.xml file in the same directory of the QRDA package. The two files must be moved together.
Associating a QRDA File with the Schematron

• To associate a QRDA file with the QRDA XML Schema, add an xml-model processing instruction before the ClinicalDocument element at the root of the QRDA file.
  ▪ See http://www.w3.org/TR/xml-model/ for information about xml-model.

• The value of the href pseudo-attribute of the processing instruction is the relative or absolute path to the Schematron file.

```xml
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<ClinicalDocument xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns="urn:hl7-org:v3" xmlns:voc="urn:hl7-org:v3/voc"
    xmlns:cda="urn:hl7-org:v3"
    xmlns:sdtc="urn:hl7-org:sdtc"/>
...)
</ClinicalDocument>
```
Validating Against the QRDA Schematron Schema

Open the QRDA file in an XML editor that supports Schematron, and validate the QRDA.

If prompted for a phase, choose “errors.”

Correct any errors it reports, and validate again until error-free.

The example to the right shows validation in Oxygen XML Editor.
Appendix B: Test Submission Utilizing CMS eCQM Receiving System and Reports
Validating Test Submissions Using CMS Operational System

- Submitters can upload test QRDA files at any time using the operational CMS Hospital eCQM Reporting System via the secure QualityNet website (https://www.qualitynet.org).

- Test submissions are validated against the same schemas and rules used for Production files; this allows users to find and correct errors prior to submitting files as Production.

- Test submissions do not count towards Meaningful Use for Electronic Health Record (EHR) or Inpatient Quality Reporting (IQR) Programs.

- Submitting test files is just as secure as submitting Production files.

- Test submissions are kept separate from Production submissions for reporting purposes.

- Test files are flagged as “Test Cases” on the Submission Reports.

- Two IQR EHR reports display feedback messages associated with each file submitted:
  - **EHR Hospital Reporting - Submission Detail Report**: reports Errors and Warnings from file validation and indicates file status as Accepted or Rejected
  - **EHR Hospital Reporting - eCQM Submission and Performance Feedback Report**: reports eCQM measure outcome messages for Accepted files
Appendix C: Known Issues with Error Messages
Known Issues Using CMS Operational System

• It is possible that the EHR Hospital Reporting - Submission Detail Report could contain very similar feedback messages for just one error, for example:

  • If patient name is missing in the recordTarget section, will see both of these messages on the report:
    • ERROR: This patient SHALL contain at least one [1..*] name (CONF:5284).
    • ERROR: This patient SHALL contain exactly one [1..1] name \(\text{(CONF:5284)}\)

  • If the Payer entry is missing in Patient Data section, will see both of these messages on the report:
    • ERROR: SHALL contain at least one [1..*] entry (CONF:CMS_0029)
    • ERROR: SHALL contain at least one [1..*] entry (CONF:14567).

• It is possible that feedback messages on the EHR Hospital Reporting - Submission Detail Report, may not match what is shown in the CMS IG:

  • If the Patient Characteristic Payer entry is missing, you will see message #1, but message #2 is shown in the 2015 CMS IG:
    1. ERROR: SHALL contain at least one [1..*] payer (CONF-HR:14430-1)
    2. ERROR: SHALL contain at least one [1..*] entry (CONF:CMS_0030) such that it
Appendix D: Eligible Hospital eCQM Measure Version Specific ID’s
### 2014 EH eCQM Measure Version Specific IDs

<table>
<thead>
<tr>
<th>CMS Number</th>
<th>NQF Number</th>
<th>Short Name</th>
<th>eMeasure Title</th>
<th>GUID (setId root)</th>
<th>eMeasure Version</th>
<th>April 2014</th>
<th>Version Specific (id root)</th>
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<td>Venous Thromboembolism Patients with Anticoagulation Overlap Therapy</td>
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