Health Level Seven® International

Results
Interoperability
Safety
Quality
Speed

People
Solutions

More Than You Think
HL7 Quality Reporting Document Architecture

standardized quality reports
Relates to other standards

Health Quality Measure Format (eMeasure)

Quality Data Model (QDM)
MU2 and Quality Reporting

- Quality Data Model
- QRDA-I
- HQMF eMeasure
- QRDA-III
Built on Clinical Document Architecture

- Quality Reporting Document Architecture (QRDA)
- Consolidated CDA (C-CDA)
- Clinical Document Architecture (CDA)
What is HQMF?

- standard for representing Quality Measure
- “question”/ “answer” relationship to QRDA
What is QRDA?

Quality Document Reporting Architecture (QRDA) is a CDA-based standard for reporting patient quality data for one or more quality measures.

- QRDA Category I – Single patient Report
- QRDA Category III - Aggregate Report
QRDA-1: Patient Level Report

- Provider
- Patient
- Measures that are being reported on
  - Patient data
  - reporting parameters
- Insurance data
# QRDA-1: Example

## Table of Contents

- Measure Section
- Reporting Parameters
- Patient Data

## Measure Section

<table>
<thead>
<tr>
<th>eMeasure Title</th>
<th>Version neutral identifier</th>
<th>eMeasure Version Number</th>
<th>NQF eMeasure Number</th>
<th>eMeasure Identifier</th>
<th>Version specific identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children's Asthma Care (CAC-1) Relievers for Inpatient Asthma</td>
<td>4c7f6e6c-1487-4479-84c3-1dfdaaf0781c</td>
<td>1</td>
<td>0143</td>
<td>93</td>
<td>8a4d902b-373f-82e2-0137-795e62165c8f</td>
</tr>
<tr>
<td>Children's Asthma Care (CAC-2) Systemic Corticosteroids for Inpatient Asthma</td>
<td>37c71959-3991-457c-b8ea-774238c8724b</td>
<td>1</td>
<td>0144</td>
<td>106</td>
<td>8a4d902b-373f-82e2-0137-baed843f5993</td>
</tr>
</tbody>
</table>

## Reporting Parameters

- Reporting period: 01 Jan 2011 - 31 Dec 2011

## Patient Data

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Value</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encounter, Performed: Emergency Department Visit</td>
<td>Emergency Department visit</td>
<td>03/01/2011 4:00 - 03/01/2011 8:30</td>
</tr>
<tr>
<td>Encounter, Performed: Encounter Inpatient</td>
<td>Hospital admission</td>
<td>03/01/2011 9:00 - 03/03/2011 10:30</td>
</tr>
<tr>
<td>Diagnosis, Active: Asthma</td>
<td>Asthma</td>
<td>01/01/2011</td>
</tr>
<tr>
<td>Medication, Administered not done: Patient refusal, Asthma Relievers: albuterol 1.25 MG (albuterol sulfate 1.5 MG) per 3 ML Inhalation Solution</td>
<td>Drug declined by patient - reason unknown</td>
<td>Null</td>
</tr>
</tbody>
</table>
QRDA-3: Aggregate Report

- aggregate measure score
- breakdown by populations for measure numerator, denominator, exclusions
Reporting Parameters

- Reporting period: 01 January 2012 - 31 March 2012
- First encounter: 05 January 2012
- Last encounter: 24 March 2012

Measure Section

<table>
<thead>
<tr>
<th>eMeasure Title</th>
<th>Version neutral identifier</th>
<th>eMeasure Version Number</th>
<th>NQF eMeasure Number</th>
<th>eMeasure ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticoagulation Therapy for Atrial Fibrillation/Flutter</td>
<td>03876d69-085b-415c-ae9d-9924171040c2</td>
<td>1</td>
<td>0436</td>
<td>71</td>
</tr>
</tbody>
</table>

Member of Measure Set: Clinical Quality Measure Set 2011-2012 - b6ac13e2-beb8-4e4f-94ed-fcc397406cd8

- Performance Rate: 83% (Predicted = 62%)
- Reporting Rate: 84%
- Initial Patient Population: 1000
  - Male: 400
  - Female: 600
  - Not Hispanic or Latino: 350
  - Hispanic or Latino: 650
  - Black: 300
  - White: 350
  - Asian: 350
  - Payer - Medicare: 250
  - Payer - Medicaid: 550
  - Zipcode 92543: 15

- Denominator: 500
  - Male: 200
  - Female: 300
  - Not Hispanic or Latino: 175
  - Hispanic or Latino: 325
  - Black: 150
  - White: 175
  - Asian: 175
  - Payer - Medicare: 125
  - Payer - Medicaid: 275
  - Zipcode 92543: 15

- Numerator: 400 (predicted=300)
  - Male: 100
  - Female: 300
  - Not Hispanic or Latino: 140
  - Hispanic or Latino: 260
  - Black: 120
  - White: 140
  - Asian: 140
  - Payer - Medicare: 100
QRDA Adoption

- Use in Federal Programs to standardize reporting and data collection on a national level
  - PQRS
  - Meaningful Use
  - Inpatient Quality Reporting
- The Joint Commission eMeasure Pilot
## QRDA in Meaningful Use

<table>
<thead>
<tr>
<th>§ 170.205 Content exchange standards and implementation specifications for exchanging electronic health information.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>170.205(a)(3)</strong></td>
</tr>
<tr>
<td><strong>170.205(h)</strong></td>
</tr>
<tr>
<td><strong>170.205(i)</strong></td>
</tr>
<tr>
<td><strong>170.205(k)</strong></td>
</tr>
</tbody>
</table>
## QRDA in Meaningful Use

### § 170.314 (c) Clinical Quality Measures

1. Clinical quality measures—capture and export

   - **(i) Capture**
     - For each and every CQM for which the EHR technology is presented for certification, EHR technology must be able to electronically record all of the data identified in the standard specified at § 170.204(c) that would be necessary to calculate each CQM. Data required for CQM exclusions or exceptions must be codified entries, which may include specific terms as defined by each CQM, or may include codified expressions of “patient reason,” “system reason,” or “medical reason.”

   - **(ii) Export**
     - EHR technology must be able to electronically export a data file formatted in accordance with the standards specified at § 170.205(h) that includes all of the data captured for each and every CQM to which EHR technology was certified under paragraph (c)(1)(i) of this section.
QRDA in Meaningful Use

<table>
<thead>
<tr>
<th>(2) Clinical quality measures—import and calculate</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Import</td>
</tr>
<tr>
<td>EHR technology must be able to electronically import a data file formatted in accordance with the standard specified at § 170.205(h) and use such data to perform the capability specified in paragraph (c)(2)(ii) of this section. EHR technology presented for certification to all three of the certification criteria adopted in paragraphs (c)(1) through (3) of this section is not required to meet paragraph (c)(2)(i).</td>
</tr>
<tr>
<td>(ii) Calculate</td>
</tr>
<tr>
<td>EHR technology must be able to electronically calculate each and every clinical quality measure for which it is presented for certification.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) Clinical quality measures—electronic submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable a user to electronically create a data file for transmission of clinical quality measurement data: (i) In accordance with the standards specified at § 170.205(h) and (k); and (ii) That can be electronically accepted by CMS.</td>
</tr>
</tbody>
</table>
Building on the Architecture

- PQRS QRDA Implementation Guide
- CMS Hospital Programs QRDA Implementation Guide
- Quality Reporting Document Architecture (QRDA)
- Consolidated CDA (C-CDA)
- Clinical Document Architecture (CDA)
Implementation Feedback

• DSTU Web pages
  • https://www.hl7.org/dstucomments/showdetail.cfm?dstuid=90
  • https://www.hl7.org/dstucomments/showdetail.cfm?dstuid=80
QRDA Resources

- CMS CQM Home Page

- CMS Program specific QRDA Implementation Guides
  - [qualitynet.org](http://qualitynet.org)

- ONC CQM Issue Tracker
  - [http://oncprojecttracking.org/](http://oncprojecttracking.org/)