eCQI Resource Center Highlight
FHIRM® Standard and
Collaborative Measure Development Workspace

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eCQI RESOURCE CENTER - HTTPS://ECQI.HEALTHIT.GOV

Updated eCQM Data Element Repository for 2020 Reporting Now Available

Electronic Clinical Quality Improvement (eCQI) Resource Center - The one-stop shop for the most current resources to support electronic clinical quality improvement.

Featured Resources

- Eligible Professionals / Eligible Clinician eCOMs
- Eligible Hospitals / Critical Access Hospitals eCOMs
- Educational Resources
LOCATING THE FHIR WEBPAGE
HTTPS://ECQI.HEALTHIT.GOV/FHIR
WHAT IS FHIR?


• FHIR is a next-generation standards framework created by HL7.

• Provides an Interoperable Platform for Healthcare
  o Defines a common way to structure health data known as ‘Resources’
  o Enables automated data exchange through Application Programming Interfaces (APIs)

• FHIR uses latest technologies to be developer friendly.
Fast Healthcare Interoperability Resources (FHIR®)

FHIR (Fast Healthcare Interoperability Resources) is an open-source Health Level Seven International (HL7®) standard for exchanging healthcare information electronically. It is the next generation exchange framework being adopted by the healthcare community to advance interoperability. Electronic health records (EHRs) represent patient data in different ways (e.g., medications, encounters). FHIR provides a means for representing and sharing information among clinicians and organizations in a standard way regardless of the ways local EHRs represent or store the data. FHIR combines the best features of previous standards into a common specification, while being flexible enough to meet needs of a wide variety of use cases within the healthcare ecosystem. FHIR has a heavy focus on implementation and uses the latest web technologies to aid rapid adoption.

**FHIR Quality Measurement**

The healthcare community and CMS are exploring a potential transition to FHIR-based quality measurement beginning with research and testing. Currently used quality standards, Quality Data Model (QDM), Clinical Quality Language (CQL), Health Quality Measure Format (HQMF), and Quality Reporting/Document Architecture (QRDA), remain the backbone of electronic clinical quality measure (eCQM) development and reporting. However, the FHIR standard has potential to better align with the EHRs ability to share data in clinical settings and to improve
Fast Healthcare Interoperability Resources (FHIR®)

Health Level Seven International (HL7®) has many Fast Healthcare Interoperability Resources (FHIR®) resources located on the HL7® website including a FHIR overview (PDF).

eCQI® Related Tools for Use and Evaluation:
- Atom Text Editor: An open source text editor. The 'Language-CQL' plug-in has functionality for CQL syntax highlighting and FHIR model validation.
- CQL-to-ELM Translator: A tool for producing Expression Logical Model (ELM) file format from Clinical Quality Language (CQL)®.
- CQF-Ruler: An implementation of FHIR’s Clinical Reasoning Module for processing quality measures.
- Java CQL Execution: An open source Java-based evaluation engine capable of evaluating the result of any CQL expression.
- JSF CQL Execution Framework: A set of JavaScript libraries that can execute CQL artifacts expressed as JavaScript Object Notation (JSON) ELM.
- Draft Measures Examples: A site containing examples eCQI® using FHIR.
Fast Healthcare Interoperability Resources (FHIR)®

- HL7® FHIR 101: Cooking with Clinical Quality Language (CQL)® - September 26, 2019
  - Slides (PDF)
  - Transcript of Q&A (PDF)
- Office of the National Coordinator (ONC) Fact Sheet - What is FHIR? (PDF)
- ONC on FHIR (PDF) presentation - November 2018
- NISTE FHIR Testing Tools (PDF) presentation - November 2018

Last Updated: Oct 11, 2019
Fast Healthcare Interoperability Resources (FHIR)®

- Visit the FHIR® Community Forum.
- Join the HL7® FHIR Community.
- Join an HL7 Workgroup.
- Review the FHIR Conference Wiki and the FHIR Blog.
- Track progress on the Da Vinci project, whose goal is to help payers and providers positively impact clinical, quality, cost and care management outcomes.
- Submit feedback on FHIR issues, comments, and questions to the FHIR Issue Tracker.
RESOURCES AND FEEDBACK

• FHIR Webpage – https://ecqi.healthit.gov/fhir

• Send comments, suggestions, eCQI and FHIR questions, and requests to post events and news to ecqi-resource-center@hhs.gov
COLLABORATIVE MEASURE DEVELOPMENT (CMD) WORKSPACE

- CMD Workspace Background
- Overview of the CMD Workspace Components
- Describe new features of the Data Element Repository
CMD WORKSPACE BACKGROUND

- Hosted on the eCQI Resource Center
- Set of interconnected resources, tools, and processes for eCQMs
- Promotes transparency and better interaction across stakeholder communities interested in developing and implementing more harmonized, accurate, and meaningful electronic clinical quality measures.
- Provides access to the eCQM Data Element Repository, an online, searchable tool that provides all the data elements associated with eCQMs used in CMS Quality Reporting Programs
OVERVIEW OF CMD WORKSPACE COMPONENTS

https://ecqi.healthit.gov/collaborative-measure-development
Collaborative Measure Development (CMD) Workspace

Electronic Clinical Quality Measure (eCQM) Data Element Repository (DERep)

The eCQM Data Element Repository (DERep) provides additional clarification for all the data elements associated with published and tested eCQMs used in CMS quality reporting programs as well as the definitions and clinical focus for each data element. An end user can filter information by data element, eCQM, union, QDM attribute, or QDM category and datatype data element.

The data elements provided are for use in eCQMs for 2019 and 2020 Performance and Reporting periods. Information contained within the DERep is derived from the eCQM specifications, Quality Data Model (QDM), and the Value Set Authority Center (Vsac). Each eCQM data element includes information about the value set or the direct reference code (DRF) along with the QDM datatype and the QDM attributes used by that data element. In the eCQMs for the 2019 Performance and Reporting period, QDM Version 5.4 information is displayed. In the eCQMs for the 2020 Performance and Reporting period, QDM Version 5.5 information is displayed.

Select a filter or search by term and click Apply to see results. Filter definitions are below:

- **eCQM Data Element**
  - The eCQM data elements provide a listing of all data elements used in eCQMs for the selected CMS quality reporting and performance periods. Each eCQM data element includes information about the value set or the direct reference code, along with the QDM datatype and QDM attributes used by that data element.
  - The eCQM filter currently provides a list of the Eligible Hospital, Critical Access Hospital and Eligible Professional/Eligible Clinician measures used in CMS quality reporting programs. The individual eCQM pages provide the measure rationale and a list of all the eCQM data elements associated with the measure and information about each data element.

https://ecqi.healthit.gov/cmd-workspace?qt-tabs_cmd=1
A "Year" filter is now available to select between the 2019 or 2020 Performance/Reporting Period Measures.
ELIGIBLE HOSPITAL/CAH eCQMS FOR 2019 PERFORMANCE/REPORTING

Electronic Clinical Quality Measure (eCQM) Data Element Repository (DERep)

The eCQM data element repository (DERep) provides additional information for all the data elements associated with published and tested eCQMs used in CMS quality reporting programs as well as the definitions and clinical focus for each data element. An end user can filter information for a data element, eCQM, version (e.g. "DERep 0.1"), or CMS category (e.g. adverse events) if desired.

The data element provides as is use for eCQM for 2019 and 2020 Performance and Reporting periods. Information contained within the DERep is derived from the eCQM specifications, Quality Measure Data Model (QMDM), and the Value Set Authority Center (VSAC). Each eCQM data element indicates information about the value set, the data element, and the eCQM (e.g. if the "value set" is used by that data element in the eCQMs for the 2019 and Reporting period). QMDM Version 1.3 information is displayed in the eCQM for the 2020 Performance and Reporting period. QMDM Version 1.4 information is displayed.

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<th>Year</th>
<th>Select a Filter Options</th>
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**eCQM**

The above filter currently provides a list of the Eligible Hospital/Critical Access Hospital and Eligible Professional Eligible Clinician measures used in CMS quality reporting programs. The individual eCQM pages provide the measure rationale and a list of all the eCQM data elements associated with the measure and information about each data element.
ELIGIBLE HOSPITAL/CAH eCQMS FOR 2020 PERFORMANCE/REPORTING

Electronic Clinical Quality Measure (eCQM) Data Element Repository (DERep)

The eCQM Data Element Repository (DERep) provides additional clarification for all the data elements associated with published and tested eCQMs used in CMS quality reporting programs as well as the definitions and clinical focus for each data element. An end user can filter information by data element, eCQM, year, data domain, and data type data element.

The data elements provided are for use in eCQMs for 2019 and 2020 Performance and Reporting periods. Information contained within the DERep is derived from the eCQM specifications, Quality Data Model (QDM), and the Value Set Authority Center (VSAC). Each eCQM data element includes information about the value set or the direct reference code in QDM, along with the QDM value set, and the QDM attributes used by that data element. In the eCQMs for the 2019 Performance and Reporting period, QDM Version 5.4 information is displayed. In the eCQMs for the 2020 Performance and Reporting period, QDM Version 5.6 information is displayed.

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<td>EVA/CAH eCQMs</td>
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**eCQM**

The eCQM filter currently provides a list of the Eligible Hospital/Eligible Access Hospital and Eligible Professional/Eligible Clinician measures used in CMS quality reporting programs. The individual eCQM pages provide the measure rationale and a list of all the eCQM data elements associated with the measure and information about each data element.

- CMS79v1 - Anticoagulation Therapy for Atrial Fibrillation/Flutter
- CMS80v4 - Antithrombotic Therapy At End of Hospital Stay
- CMS81v5 - Discharged on Antithrombotic Therapy
- CMS83v6 - Discharged on Statin Medication
- CMS85v8 - Exclusive Breast Milk Feeding
- CMS86v6 - Intensive Care Unit Ventilator Thromboprophylaxis
- CMS87v9 - Median Intravenous Time to ID Departure Time for Admitted Patients
- CMS88v9 - Venous Thromboembolism Prophylaxis
• The measure title and description is displayed based on the measure specification

• A listing of data elements used in the measure follows

• A sample element using a Direct Reference Code is displayed.

• A sample element using a value set is also displayed.
HIGH-LEVEL PLAN FOR DEVELOPMENT

• September 2018 – October 2019
  o Launched CMD Workspace Landing Page and DERep (December 2018 (initial release), February 2019)
  o Added the remaining 42 CMS Eligible Clinician eCQMs to the DERep to complete the information in the data element repository for all available 2019 CMS eCQMs.
  o October 2019 Release of the Data Element Repository includes data definitions for 2020 Performance/Reporting Measures

• April 2019 – December 2019
  o Elicit feedback and requirements from providers, implementers, and other stakeholders on existing and planned features
  o Pursue development of remaining CMD Workspace modules
CMD WORKSPACE LINK

Access the CMD Workspace via the eCQI Resource Center

https://ecqi.healthit.gov/cmd-workspace