

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

November 2019

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eCQI RESOURCE CENTER - [HTTPS://ECQI.HEALTHIT.GOV](https://ecqi.healthit.gov)

eCQI
RESOURCE CENTER

eCQMs -
Electronic Clinical
Quality Measures

Resources -
Standards, Tools, &
Resources

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eCQI, CDS, FAQs
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Updated eCQM Data Element
Repository for 2020 Reporting
Now Available

[eCQM Data Element Repository \(DERep\) >](#)

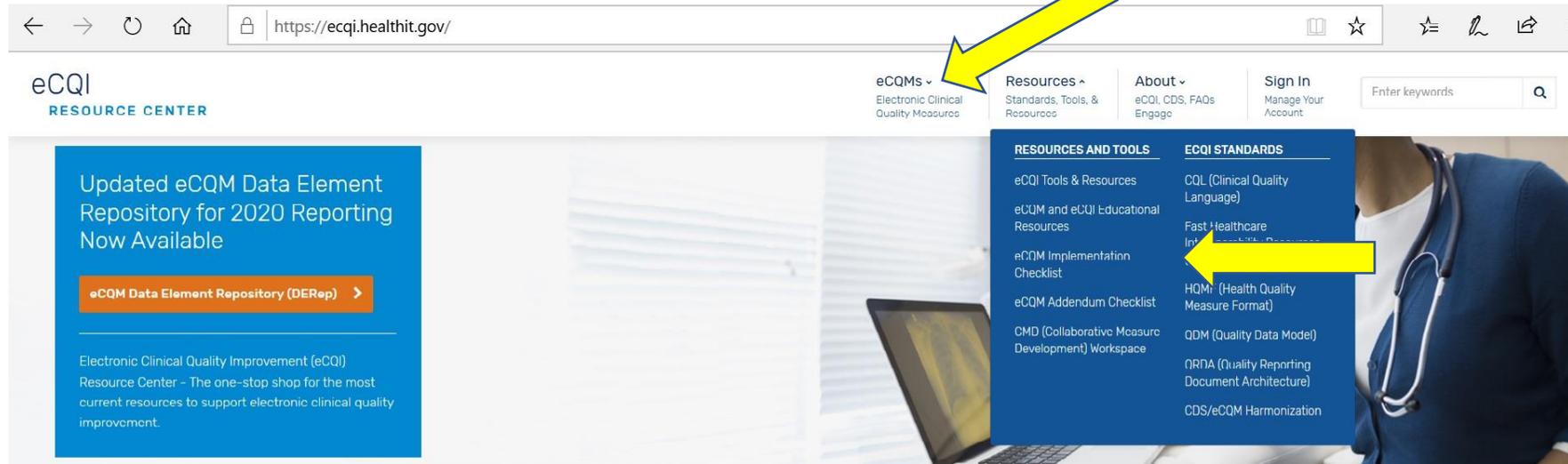
Electronic Clinical Quality Improvement (eCQI)
Resource Center - The one-stop shop for the most
current resources to support electronic clinical quality
improvement.



Featured Resources

		
Eligible Professional / Eligible Clinician eCQMs	Eligible Hospitals / Critical Access Hospital eCQMs	Educational Resources

LOCATING THE FHIR WEBPAGE [HTTPS://ECQI.HEALTHIT.GOV/FHIR](https://ecqi.healthit.gov/fhir)



Featured Resources

		
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WHAT IS FHIR?

- FHIR – Fast Healthcare Interoperability Resources - <http://hl7.org/fhir>.
- FHIR is a next-generation standards framework created by HL7.
- Provides an Interoperable Platform for Healthcare
 - Defines a common way to structure health data known as ‘Resources’
 - Enables automated data exchange through Application Programming Interfaces (APIs)
- FHIR uses latest technologies to be developer friendly.

FHIR WEBPAGE - ABOUT TAB

[HTTPS://ECQI.HEALTHIT.GOV/FHIR](https://ecqi.healthit.gov/fhir)

The screenshot shows the eCQI Resource Center website. The top navigation bar includes the eCQI logo, a search bar, and menu items for eCQMs, Resources, About, and My account. The main content area is titled "Fast Healthcare Interoperability Resources (FHIR®)" and features a "View" button. Below this is a "Receive updates on this topic" link and a tabbed interface with "About", "Tools & Resources", "Education", and "Connect" tabs. The "About" tab is active, displaying a paragraph about FHIR as an open-source standard for exchanging healthcare information. Below the paragraph is a section titled "FHIR Quality Measurement" with a paragraph discussing the transition from current quality standards to FHIR-based measurement.

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Enter keywords

[Home](#)

Fast Healthcare Interoperability Resources (FHIR®)

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[Fast Healthcare Interoperability Resources \(FHIR®\)](#) 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



FHIR WEBPAGE – TOOLS AND RESOURCES

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eCQMs Electronic Clinical Quality Measures

Resources Standards, Tools, & Resources

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

[eCQM®](#) 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.
- [JS CQL Execution Framework](#): A set of [CoffeeScript](#) libraries that can execute CQL artifacts expressed as Java Script Object Notation (JSON) ELM.
- [Draft Measures Examples](#): A site containing example [eCQMs®](#) using FHIR.



FHIR WEBPAGE – EDUCATION

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- [HL7® FHIR 101 Cooking with Clinical Quality Language \(CQL\)®](#) - September 26, 2019
 - [Slides](#) (PDF)
 - [Transcript of Q&As](#) (PDF)
- [Office of the National Coordinator \(ONC\)](#) [Fact Sheet – What is FHIR?](#) (PDF)
- [ONC on FHIR](#) (PDF)® presentation - November 2018
- [MITRE FHIR Testing Tools](#) presentation - November 2018

Last Updated: Oct 11, 2019



FHIR WEBPAGE - CONNECT

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Visit the [FHIR® Community Forum](#).

Join the [HL7® FHIR Community](#).

Join an [HL7 Workgroup](#).

Review the [FHIR Confluence Wiki](#) and the [FHIR Blogs](#).

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

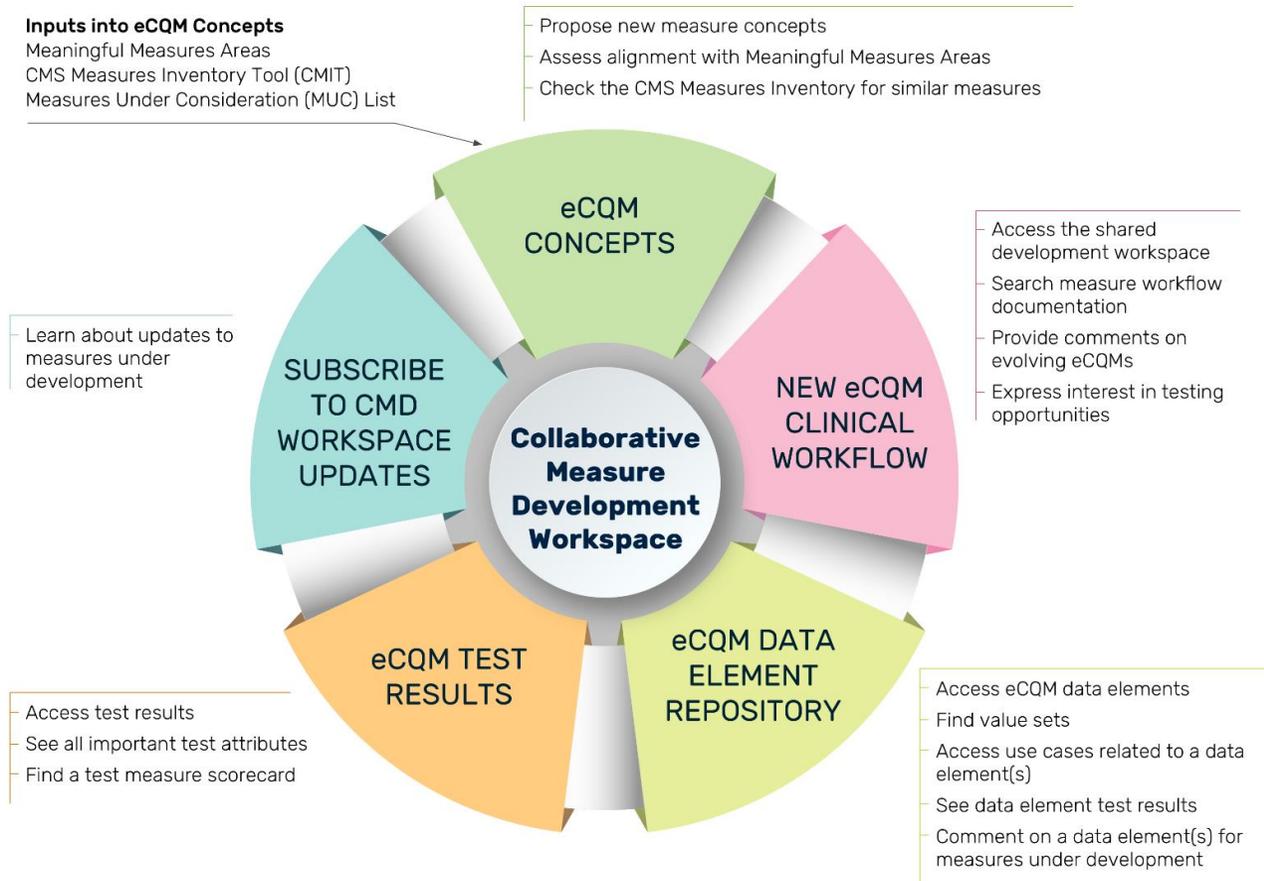


CMD WORKSPACE BACKGROUND

- 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>

eCQM DATA ELEMENT REPOSITORY

Collaborative Measure Development (CMD) Workspace

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eCQM Data Element Repository

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 ([DRC](#)), 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 5.3 information is displayed. In the eCQMs for the 2020 Performance and Reporting period, QDM Version 5.4 information is displayed.

Year	Select a Filter Option	Search	Sort by	Order	
2019	EP/EC eCQMs		Title	Asc	Apply

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.

eCQM

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



Collaborative Measure Development (CMD) Workspace

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A "Year" filter is now available to select between the 2019 or 2020 Performance/Reporting Period Measures.

Year: 2019 (selected), 2020, 2019
Select a Filter Option: EP/EC eCQMs
Search:
Sort by: Title
Order: Asc
Apply

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

eCQM Data Element

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ELIGIBLE HOSPITAL/CAH eCQMS FOR 2019 PERFORMANCE/REPORTING

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

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Year	Select a Filter Option	Search	Sort by	Order	
2019	EH/CAH eCQMs	<input type="text"/>	Title	Asc	<input type="button" value="Apply"/> <input type="button" value="Reset"/>

eCQM

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[CMS71v8 - Anticoagulation Therapy for Atrial Fibrillation/Flutter](#)

[CMS72v7 - Antithrombotic Therapy By End of Hospital Day 2](#)

[CMS102v7 - Assessed for Rehabilitation](#)

[CMS104v7 - Discharged on Antithrombotic Therapy](#)

[CMS105v7 - Discharged on Statin Medication](#)

[CMS113v7 - Elective Delivery](#)

[CMS9v7 - Exclusive Breast Milk Feeding](#)

[CMS31v7 - Hearing Screening Prior To Hospital Discharge](#)

[CMS26v6 - Home Management Plan of Care \(HMPC\) Document Given to Patient/Caregiver](#)

[CMS190v7 - Intensive Care Unit Venous Thromboembolism Prophylaxis](#)

[CMS111v7 - Median Admit Decision Time to ED Departure Time for Admitted Patients](#)

[CMS55v7 - Median Time from ED Arrival to ED Departure for Admitted ED Patients](#)

[CMS32v8 - Median Time from ED Arrival to ED Departure for Discharged ED Patients](#)

[CMS53v7 - Primary PCI Received within 90 Minutes of Hospital Arrival](#)

[CMS107v7 - Stroke Education](#)

[CMS108v7 - Venous Thromboembolism Prophylaxis](#)



ELIGIBLE HOSPITAL/CAH eCQMS FOR 2020 PERFORMANCE/REPORTING

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

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Year	Select a Filter Option	Search	Sort by	Order	
2020	EHI/CAH eCQMs		Title	Asc	<input type="button" value="Apply"/> <input type="button" value="Reset"/>

eCQM

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[CMS71v9 - Anticoagulation Therapy for Atrial Fibrillation/Flutter](#)

[CMS72v8 - Antithrombotic Therapy By End of Hospital Day 2](#)

[CMS104v8 - Discharged on Antithrombotic Therapy](#)

[CMS105v8 - Discharged on Statin Medication](#)

[CMS9v8 - Exclusive Breast Milk Feeding](#)

[CMS190v8 - Intensive Care Unit Venous Thromboembolism Prophylaxis](#)

[CMS111v8 - Median Admit Decision Time to ED Departure Time for Admitted Patients](#)

[CMS108v8 - Venous Thromboembolism Prophylaxis](#)



SCREENSHOT OF SAMPLE eCQM PAGE

- 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.

CMS108v8 - Venous Thromboembolism Prophylaxis (VTE-1)

DERep Home Page

Performance/Reporting Period

2020

Description:

This measure assesses the number of patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after hospital admission or surgery end date for surgeries that start the day of or the day after hospital admission

Data Elements contained within the eCQM

[Assessment, Performed: Risk for venous thromboembolism](#)

Direct Reference Code

Constrained to 'Risk for venous thromboembolism' [LOINC code](#)

ODM Datatype and Definition (ODM Version 5.4)

[Assessment, Performed](#)

Data elements that meet criteria using this datatype should document completion of the assessment indicated by the ODM category and its corresponding value set.

Timing: The time the assessment is completed; Author dateTime.

[Device, Applied: Graduated compression stockings \(GCS\)](#)

Value Set Description from VSAC

CLINICAL FOCUS: This value set contains concepts that represent graduated compression stocking devices that are used to prevent VTEs in patients.

DATA ELEMENT SCOPE: This value set may use the Quality Data Model (ODM) category related to Device. The intent of this data element is to identify patients who have a graduated compression stocking device applied. It may also be used to identify patients who did not have a graduated compression stocking device applied for VTE prophylaxis for an allowable reason when used with a negation rationale attribute.

INCLUSION CRITERIA: Includes only relevant concepts associated with graduated compression stockings.

EXCLUSION CRITERIA: No exclusions.

Constrained to codes in the Device, Applied: Graduated compression stockings (GCS) value set [\(2,16,840,1,113883,3,117,1,7,1,256\)](#)

ODM Datatype and Definition (ODM Version 5.4)

[Device, Applied](#)

Data elements that meet criteria using this datatype should document that the device indicated by the ODM category and its corresponding value set is in use, or impacts or alters the treatment, care plan, or encounter (e.g., an antithrombotic device has been placed on the patient's legs to prevent thromboembolism, or a cardiac pacemaker is in place).

Timino: The Relevant Period addresses:



HIGH-LEVEL PLAN FOR DEVELOPMENT

- September 2018 – October 2019
 - Launched CMD Workspace Landing Page and DERep (December 2018 (initial release), February 2019)
 - 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.
 - October 2019 Release of the Data Element Repository includes data definitions for 2020 Performance/Reporting Measures
- April 2019 – December 2019
 - Elicit feedback and requirements from providers, implementers, and other stakeholders on existing and planned features
 - 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>

