“Read Me First” Guide to Understanding Electronic Clinical Quality Measure (eCQM) Flows For Eligible Hospitals and Critical Access Hospitals (CAHs)

The Centers for Medicare & Medicaid Services has released new electronic clinical quality measure (eCQM) flows for eligible hospitals and critical access hospitals (CAHs). These flows provide a concise overview of the Clinical Quality Language (CQL) used to express logic in the measures and the data elements, drawn from Version 5.6 of the Quality Data Model, used to express clinical concepts. The eCQM flows highlight relevant data criteria and are organized to help interested parties interpret the logic and understand how performance rates are calculated.

At a high level, the large rectangular boxes in the flows summarize the eCQM data criteria. This usually includes the CQL definition of the population criteria or a brief summary of the logic. At a more detailed level, brackets alongside or below the rectangular boxes summarize any additional details and data criteria included in the logic statements. Where possible, annotations appear similar to how they appear in the human-readable measure specification. The eCQM flows are divided into rows, or swim lanes, to make it easier to see the data criteria for each measure component. At the end of each eCQM flow is a brief narrative that provides an overview of the entire measure flow. The narrative aligns with the header in each measure specification.

These eCQM flows are intended to be an additional resource to help hospitals implement eCQMs. They are not intended to replace the eCQM specifications for reporting purposes. These eCQM flows are a condensed representation of the measure specifications and may not include all definitions, data elements, functions, or timing criteria.

Below are general notes to help interested parties interpret the eCQM flow diagrams.

- **Rectangular boxes** contain the CQL definition of the population criteria or a brief summary of the CQL logic statement.
    - Example:

- **Brackets** contain more in-depth details from the CQL logic, such as nested definitions, value sets, data types, attributes, and timing elements.
    - Example:

"Singleton Delivery Encounters at 37 Plus Weeks Gravida 1 Parity 0, No Previous Births"
WITH
["Procedure, Performed": "CESAREAN BIRTH"]
starts during delivery encounter

- **Definitions** are in boldface and quotation marks.
    - Example: "**Ischemic Stroke Encounter**"
- **Value sets** or direct reference codes are in all caps and quotation marks. Note that value sets are not in all caps in the published measure specifications.
    - Example: "HISTORY OF ATRIAL ABLATION"
- **Data criteria (data types from the Quality Data Model)** appear in brackets and quotation marks, followed by a colon and the associated value set.
    - Example:

["Procedure, Performed":
"GENERAL SURGERY" **OR**
"GYNECOLOGICAL SURGERY" **OR**
"HIP FRACTURE SURGERY" **OR**
"HIP REPLACEMENT SURGERY" **OR**
"INTRACRANIAL NEUROSURGERY" **OR**
"KNEE REPLACEMENT SURGERY" **OR**
"UROLOGICAL SURGERY"]

- **Attributes** appear in parentheses and are capitalized.
    - Example: (Negation Rationale)
- **Functions/other data components** are capitalized.
    - Examples: Hospitalization, Measurement Period
- **Keywords** are in boldface and all caps.
    - Examples: **WITH, WHERE, OR**
- **Timing elements** are in lowercase.
    - Example: starts during encounter
- **Comments** are italicized.
    - Example: *Captures encounters of patients with an opioid(s), benzodiazepine, or a combination of these medications at discharge*

- **Population criteria** are color coded and marked with a letter if they are used in the sample calculation. Multiple clauses in each population criterion are marked with numbers.
    - See Table 1, Electronic Clinical Quality Measure (eCQM) Flow Legend for Eligible Hospitals and Critical Access Hospitals (CAHs), below for information regarding specific colors used to identify population criteria and letters.

Table 1. Electronic Clinical Quality Measure (eCQM) Flow Legend for Eligible Hospitals and Critical Access Hospitals (CAHs)

Population criteria	Color	Letter
Initial population		Not applicable
Denominator/ Measure Population		**a** (a1, a2, a3)
Denominator Exclusions/ Measure Population Exclusions		**b** (b1, b2, b3)
Numerator/ Measure Observation		**c** (c1, c2, c3)
Denominator Exceptions		**d** (d1, d2, d3)
Stratification		Not applicable
Supplemental Data Elements (Measure Specific)		Not applicable