



RESOURCE AND PATIENT MANAGEMENT SYSTEM

# **Electronic Clinical Quality Measures Engine**

**(ECQM)**

## **Measure Guidance Manual**

Version 8.0  
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Office of Information Technology  
Division of Information Technology

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## Revision History

Version	Date	Author	Section	Page Number	Summary of Change
2023	11/07/2023	Kelly Samuelson	All	All	Updates to reflect the new CQM measures added with v6 for 2023 and updates to all existing measures to reflect 2023 accurately
2023.1	06/06/2024	Kelly Samuelson	3.0	32 & 33	Added v3 Hybrid measures section
2024	10/03/2024	Kelly Samuelson	All	All	Updates to all existing measures for 2024 reporting
2025	12/11/2025	Kelly Samuelson	All	All	Updates to all existing measures for 2025 reporting and non-reportable measures retired/not-certified

## 1.0 Introduction

Electronic Clinical Quality Measures (eCQM) are standardized metrics that measure and track the quality of health care services provided by eligible clinicians (EC), eligible hospitals (EH), and critical access hospitals (CAH).

The results of the measures are used to calculate a quality score. This process helps ensure that our healthcare system delivers effective, safe, efficient, patient-centered, equitable, and timely care. While the eCQMs are not practice guidelines, they are indicative through measuring positive or negative outcomes of good clinical practices.

eCQM performance rates are used by various governing bodies to evaluate programs, and in the case of Centers for Medicare & Medicaid Services (CMS), payments for Medicare services may be affected. eCQMs measure many aspects of patient care, including:

- Patient and family engagement
- Patient safety
- Care coordination
- Population/public health
- Efficient use of healthcare resources
- Clinical process/effectiveness

Indian Health Service Resource Patient Management System Certified Electronic Health Record (IHS RPMS-CEHR) generates patient-based files containing the data needed to create CQM reports in a standardized format. These are called Quality Reporting Data Architecture (QRDA) Category I (CAT-I) files. The ECQM Engine is a browser-enabled graphical user interface for the Indian Health Service (IHS) that extracts the data from multiple CAT-I files and generates QRDA Category III (CAT-III) aggregated report files, which may be submitted to CMS. The ECQM Engine also outputs human-readable reports that can be used in quality improvement activities at individual sites.

eCQMs are tools that help measure and track the quality of health care services that EP, EH, and CAH provide, as generated by a provider's electronic health record (EHR). Health care providers must electronically report eCQMs, which use data from EHRs or health information technology systems to measure health care quality.

eCQMs are a component of the ONC Certification Criteria for Health IT certification criteria necessary for participating in various CMS Programs. RPMS EHR has been updated to meet these expanded criteria.

Each year, CMS makes updates to the eCQMs approved for CMS programs to reflect changes in:

- Evidence-based medicine
- Code sets
- Measure logic

Based on IHS Leadership/Stakeholders there are 12 EH/CAH eCQMs, 2 EH/CAH Hybrids, and 23 EC eCQMs are selected for inclusion in 2025.

### **Information for EH/CAHs:**

The 2025 reporting period for EHs and CAHs requires all four quarters (full calendar year). Selected 2025 EH/CAH eCQMs included in ONC Certification Criteria for Health IT:

- CMS71v14 Anticoagulation Therapy for Atrial Fibrillation/Flutter
- CMS72v13 Antithrombotic Therapy By End of Hospital Day 2
- CMS104v13 Discharged on Anti-thrombotic Therapy
- CMS108v13 Venous Thromboembolism Prophylaxis
- CMS190v13 Intensive Care Unit Venous Thromboembolism Prophylaxis
- CMS334v6 Cesarean Birth
- CMS506v7 Safe Use of Opioids–Concurrent Prescribing
- CMS816v4 Hospital Harm–Severe Hypoglycemia
- CMS819v3 Hospital Harm–Opioid-Related Adverse Events
- CMS871v4 Hospital Harm–Severe Hyperglycemia
- CMS986v4 Global Malnutrition Composite Score
- CMS1028v3 Severe Obstetric Complications

Selected 2025 EH/CAH Hybrid eCQM included in ONC Certification Criteria for Health IT ( Hybrid Reporting Period Cadence is July 1, XXXX–June 30, XXXX Reporting Period):

- CMS529v5 Core Clinical Data Elements for the Hybrid Hospital-Wide (All-Condition, All-Procedure) Risk-Standardized Mortality Measure (HWM)
- CMS844v5 Core Clinical Data Elements for the Hybrid Hospital-Wide Readmission (HWR) Measure with Claims and Electronic Health Record Data

CMS9v11 Exclusive Breast Milk Feeding, be included in the release calculated based on the 2023 measure logic; this allows sites to continue to track their performance for quality improvement.

Three EH measures included in this document are not reportable until 2026, inclusion is for knowledge and data integrity included are:

- CMS826v2 Hospital Harm–Pressure Injury
- CMS832v2 Hospital Harm – Acute Kidney injury
- CMS1218v2 Hospital Harm – Postoperative Respiratory Failure

Information for ECs (Merit-based Incentive Payment System or MIPS):

The 2025 eCQM reporting period for providers (EC) is any continuous 90-day period between January 1, 2025, and December 31, 2025. All participating ECs must report on any six eCQMs relevant to their scope of practice.

Selected EC eCQMs for the 2025 Reporting Period:

- CMS2v14 Preventive Care & Screening: Screening for Clinical Depression and Follow-up
- CMS22v13 Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented
- CMS50v13 Closing Referral Loop: Receipt of Specialist Report
- CMS69v13 Preventive Care & Screening: Body Mass Index (BMI) Screening and Follow-up
- CMS117v13 Childhood Immunization Status
- CMS122v13 Diabetes: Hemoglobin A1c (HbA1c) Poor Control (>9%)
- CMS124v13 Cervical Cancer Screening
- CMS125v13 Breast Cancer Screening
- CMS130v13 Colorectal Cancer Screening
- CMS131v13 Diabetes: Eye Exam
- CMS137v13 Initiation and Engagement of Alcohol and Other Drug Dependence Treatment
- CMS138v13 Preventive Care & Screening: Tobacco Use: Screening and Cessation Intervention
- CMS139v13 Falls: Screening for Future Fall Risk
- CMS144v13 Heart Failure: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction
- CMS145v13 Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF) less than or equal to 40%
- CMS154v13 Appropriate Treatment for Upper Respiratory Infection (URI)

- CMS155v13 Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents
- CMS156v13 Use of High-Risk Medications in Older Adults
- CMS159v13 Depression Remission at Twelve Months
- CMS165v13 Controlling High Blood Pressure
- CMS177v13 Child and Adolescent Major Depressive Disorder: Suicide Risk Assessment
- CMS347v8 Statin Therapy for the Prevention and Treatment of Cardiovascular Disease
- CMS349v7 HIV Screening

IHS requested that one retired EC measure remain in the software for sites to track for quality improvement:

- CMS160v7 Depression Utilization of the PHQ-9 Tool
  - This will be calculated based on the 2019 measure logic and has no updated measure versions.

While RPMS EHR offers multiple data entry options, eCQM included in this manual presents a limited subset of these options to efficiently capture the required data elements to achieve the highest possible score.

Each measure contains information from the ECQI website describing its description and logic, followed by a data entry process to achieve the best possible outcome. These data entry processes have been tested during development and certification. Each measure has a link to the ECQI website to get the full description, rational, detailed logic, terminology, and data criteria (QDM Data Elements).

Value sets are found in each link to the ECQI website. Value sets are groups of codes including Systematized Nomenclature of Medicine-Clinical Terms (SNOMED-CT), International Classification of Diseases (ICD), RxNORM, Current Procedural Terminology (CPT), HCPCS (Healthcare Common Procedure Coding System), Logical Observation Identifiers Names and Codes (LOINC), etc. that CMS approves for each measure. A value set can contain from one to several hundred codes. Only these codes are counted for the measure. CMS updates these value sets periodically, removing some and adding others. IHS OIT updates the terminology used for eCQM based on these changes and distributes terminology updates. Installing these updates ensures that only active and approved codes are used. OIT “maps” to these new codes to simplify the workload for individual sites.

Since the contents of any given value set are fluid and change over time, it is not practical to list the currently available codes. Instead, it is better if the user logs into the Value Set Authority Center (VSAC) to create a free account and then searches for the current values within the set. Past value sets are also viewable for troubleshooting purposes.

## 2.0 EH/CAH eCQMs

### 2.1 CMS71v14 Anticoagulation Therapy for Atrial Fibrillation/Flutter

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS71v14.html>

#### 2.1.1 Details and Data Entry

1. Initial population: Inpatient hospitalizations (non-elective admissions) for patients age 18 and older, discharged from inpatient care with a principal diagnosis of ischemic stroke, ending during the measurement period:
  - a. ADT non-elective type admission in which the patient is discharged during the reporting period
  - b. IPL SNOMED or ICD Diagnosis in V POV of ischemic or hemorrhagic stroke
2. Denominator: Inpatient hospitalizations for patients with a principal diagnosis of ischemic stroke, and a history of atrial ablation, or current or history of atrial fibrillation/flutter:
  - a. IPL SNOMED or ICD Diagnosis in V POV of ischemic stroke and atrial ablation or atrial fibrillation/flutter
3. Denominator Exclusions: Inpatient hospitalizations for patients admitted for elective carotid intervention. This exclusion is implicitly modeled by only including non-elective hospitalizations:
  - ADT Admission type UB-4 type of Elective
  - a. Inpatient hospitalizations for patients discharged to another hospital, left against medical advice, expired, home for hospice care, or to a health care facility for hospice care:
    - ADT Discharge UB-04 type
  - b. Inpatient hospitalizations for patients with comfort measures documented:
    - IPL-Add Visit Instruction/ Care Plans/ Goal Activities component, then Treatment Regime/Therapy/Follow-up- Palliative Care.
4. Numerator: Inpatient hospitalizations for patients prescribed or continuing to take anticoagulation therapy at hospital discharge:
  - a. Prescribed/Orders Outpatient anticoagulant therapy medication marked as discharge medication
  - b. Outside Medication for anticoagulant therapy recorded/ordered and active before the date/time of discharge
5. Numerator Exclusions: NOT APPLICABLE

6. Denominator Exceptions: Inpatient hospitalizations for patients with a documented reason for not prescribing anticoagulation therapy at discharge:
  - a. Personal Health component refusal for anticoagulation therapy medication:
    - Patient Refusal examples: Drug declined by patient, Refusal of treatment by patient
    - Medical Reason examples: Allergy to the drug, Contraindicated, Adverse reaction to the drug

## 2.2 CMS72v13 Antithrombotic Therapy End of Hospital Day 2

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS72v13.html>

### 2.2.1 Details and Data Entry

1. Initial Population: Inpatient hospitalizations (non-elective admissions) for patients age 18 and older, discharged from inpatient care with a principal diagnosis of ischemic stroke, ending during the measurement period:
  - a. ADT non-elective type admission
  - b. IPL SNOMED or ICD Diagnosis in V POV of ischemic or hemorrhagic stroke
2. Denominator: Initial population.
  - a. IPL SNOMED or ICD Diagnosis in V POV of ischemic stroke
3. Denominator Exclusions:
  - a. Inpatient hospitalizations for patients who have a duration of stay less than two days:
    - ADT admission/discharge less than 48 hours
  - b. Inpatient hospitalizations for patients with comfort measures documented day of or the day after arrival:
    - IPL-Add Visit Instruction/ Care Plans/ Goal Activities component then Treatment Regime/Therapy/Follow-up- Palliative Care

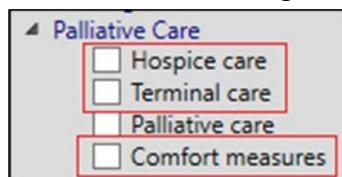


Figure 2-1: Palliative Care list

- c. Inpatient hospitalization for patients with intra-venous or intra-arterial Thrombolytic (t-PA) Therapy administered within 24 hours before arrival or anytime during hospitalization:

- BCMA t-PA medication ordered, verified in the pharmacy, and then administered to the patient

4. Numerator: Inpatient hospitalization for patients who had antithrombotic therapy administered the day of or day after hospital arrival:

- a. BCMA antithrombotic therapy medication ordered, verified in pharmacy, and then administered to the patient
- b. Therapy Initiated Date/Time in the Stroke component (Required fields for entry Arrival Date/Time and Onset Date/Time)

Figure 2-2: Stroke Tool

5. Numerator Exclusions: NOT APPLICABLE

6. Denominator Exceptions:

- a. Inpatient hospitalization for patients with a documented reason for not administering antithrombotic therapy the day of or day after hospital arrival:
  - Personal Health component refusal for anticoagulation therapy medication.
    - Patient Refusal examples: Drug declined by patient, Refusal of treatment by patient.
    - Medical reason examples: Allergy to the drug, contraindicated, adverse reaction to the drug.
- b. Inpatient hospitalization for patients who receive Prasugrel as an antithrombotic therapy the day of or day after hospital arrival:
  - Prasugrel medication was ordered, verified, and administered through BCMA.
- c. Inpatient hospitalization for patients with an INR greater than 3.5:
  - INR Lab resulted with a value > 3.5 during the admission found in V lab.

## 2.3 CMS104v13 Discharged on Antithrombotic Therapy

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS104v13.html>

### 2.3.1 Details and Data Entry

1. Initial Population: Inpatient hospitalizations (non-elective admissions) for patients age 18 and older, discharged from inpatient care with a principal diagnosis of ischemic stroke, ending during the measurement period:
  - a. ADT non-elective type admission
  - b. IPL SNOMED or ICD Diagnosis in V POV of ischemic or hemorrhagic stroke
2. Denominator: Initial population.
  - a. IPL SNOMED or ICD diagnosis in V POV of ischemic stroke
3. Denominator Exclusions:
  - a. Inpatient hospitalizations for patients admitted for elective carotid intervention. This exclusion is implicitly modeled by only including non-elective hospitalizations
    - ADT Admission type UB-04 type of elective
  - b. Inpatient hospitalizations for patients discharged to another hospital who left against medical advice, Inpatient hospitalizations for patients who expired, Inpatient hospitalizations for patients discharged to home for hospice care, and Inpatient hospitalizations for patients discharged to a health care facility for hospice care
    - ADT Discharge UB-04 type
  - c. Inpatient hospitalizations for patients with documented comfort measures. It is essential to ensure patient comfort and well-being during their hospital stay.
    - IPL- Add Visit Instruction/ Care Plans/ Goal Activities component, then Treatment Regime/Therapy/Follow-up- Palliative Care
4. Numerator: Inpatient hospitalizations for patients prescribed or continuing to take antithrombotic therapy at hospital discharge
  - a. Requires an outpatient prescription for antithrombotic medication during hospitalization, marked as “discharge medication, or an existing medication active during and after the admission (outpatient or outside order)
5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions:
  - a. Inpatient hospitalizations for patients with a documented reason for not prescribing antithrombotic therapy at discharge:
    - Personal Health component refusal for anticoagulation therapy medication

- Patient refusal examples: Drug declined by patient, refusal of treatment by patient
- Medical reason examples: Allergy to the drug, contraindicated, adverse reaction to the drug

- b. Inpatient hospitalizations for patients who receive Prasugrel as an antithrombotic therapy at discharge

## 2.4 CMS108v13 Venous Thromboembolism Prophylaxis

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS108v13.html>

### 2.4.1 Details and Data Entry

1. Initial population: Inpatient hospitalizations for patients age 18 and older, discharged from hospital inpatient acute care without a diagnosis of venous thromboembolism (VTE) or obstetrics that ends during the measurement period:
  - a. ADT non-elective type admission
  - b. No diagnosis of VTE or obstetrics in IPL SNOMED or V POV ICD 10.
2. Denominator: Initial population.
3. Denominator Exclusions:
  - a. Inpatient hospitalizations for patients who have a length of stay of less than two days:
    - ADT admission discharge less than 48 hours
  - b. Inpatient hospitalizations for patients with comfort measures documented anytime between the day of arrival and the day after hospital admission:
    - Excludes patients with documented comfort measures (IPL/TREG)
  - c. Inpatient hospitalizations for patients with comfort measures documented by the day after surgery end date for surgeries that start the day of or the day after hospital admission:
    - Excludes patients with documented comfort measures (IPL/TREG)
  - d. Inpatient hospitalizations for direct patients admitted to the intensive care unit (ICU) or transferred to ICU the day of or the day after hospital admission with ICU length of stay greater than or equal to one day:
    - ADT admission and or transfer to ICU ward and LOS <=24 hours
  - e. Inpatient hospitalizations for patients with a principal diagnosis of mental disorders or stroke
    - IPL SNOMED or V POV ICD 10 diagnosis set as Primary

f. Inpatient hospitalizations for patients with a principal procedure of surgical care improvement project (SCIP) VTE selected surgeries

- Visit services or PCC data entry of valid ICD 10 PCS marked a principal

4. Numerator: Inpatient hospitalizations for patients who received VTE prophylaxis:

- a. Between the day of arrival and the day after hospital admission
- b. The day of or the day after surgery end date for surgeries that end the day of or the day after hospital admission:
  - Medication administered while in hospital or ordered as discharge
  - Outpatient medication or outside medication order during or less than 24 hours after discharge
  - Application of VTE in IPL/TREG for Anticoag DVT prevention

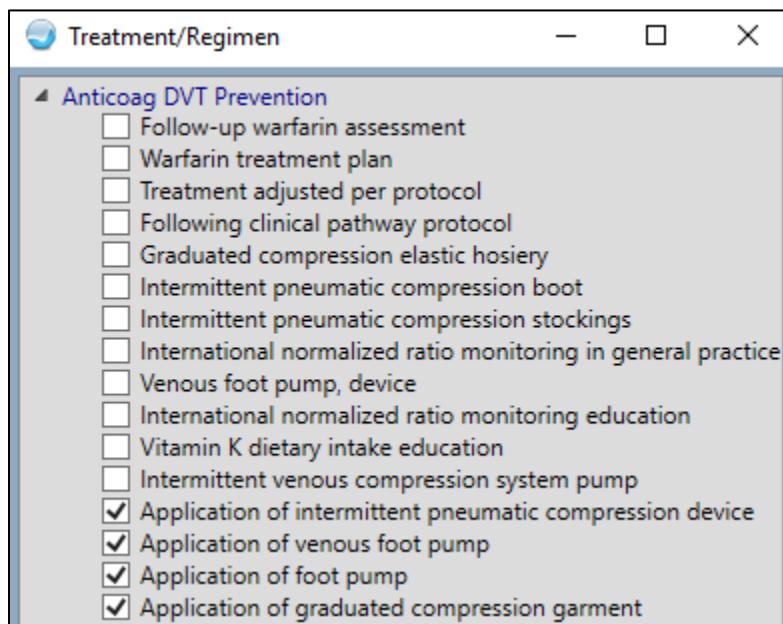


Figure 2-3: Treatment/Regimen Menu

c. Inpatient hospitalizations for patients who have documentation of a reason why no VTE prophylaxis was given:

- Between the day of arrival and the day after hospital admission
- The day of or the day after surgery end date (for surgeries that end the day of or the day after hospital admission)
  - Personal Health component refusal for anticoagulation therapy medication:
  - Patient Refusal examples: Drug declined by patient, Refusal of treatment by patient
  - Medical reason examples: Allergy to the drug, contraindicated, adverse reaction to the drug

5. Numerator Exclusions: NOT APPLICABLE
6. Denominator Exception: None

## 2.5 CMS190v13 Intensive Care Unit Venous Thromboembolism Prophylaxis

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS190v13.html>

### 2.5.1 Detail and Data Entry

1. Initial population: Inpatient hospitalizations for patients age 18 and older, discharged from hospital inpatient acute care without a diagnosis of venous thromboembolism (VTE) or obstetrics that ends during the measurement period:
  - a. ADT non-elective type admission
  - b. No diagnosis of VTE or obstetrics in IPL SNOMED or V POV ICD 10
2. Denominator: Inpatient hospitalizations for patients directly admitted or transferred to ICU during the hospitalization:
  - a. ADT direct admission or transfer to a ward set up as ICU
3. Denominator Exclusions:
  - a. Inpatient hospitalizations for patients who have a hospital length of stay (LOS) of less than two days
    - ADT admission discharge less than 48 hours
  - b. Inpatient hospitalizations for patients with comfort measures documented anytime between the day of arrival and the day after ICU admission or transfer:
    - Excludes patients with documented comfort measures (IPL/TREG)
  - c. Inpatient hospitalizations for patients with comfort measures documented by the day after surgery end date for surgeries that end the day of or the day after hospital admission:
    - Excludes patients with documented comfort measures (IPL/TREG)
  - d. Inpatient hospitalizations for patients with a principal procedure of surgical care improvement Project (SCIP) VTE selected surgeries that end the day of or the day after ICU admission or transfer
    - Visit services or PCC data entry of valid ICD 10 PCS marked as principal
4. Numerator: Inpatient hospitalizations for patients who received VTE prophylaxis:
  - a. The day of or the day after ICU admission (or transfer)

b. The day of or the day after surgery end date for surgeries that end the day of or the day after ICU admission (or transfer):

- Medication administered while in hospital or ordered as discharge
- Outpatient medication or Outside medication order during or less than 24 hours after discharge
- Application of VTE in IPL/TREG for Anticoag DVT Prevention

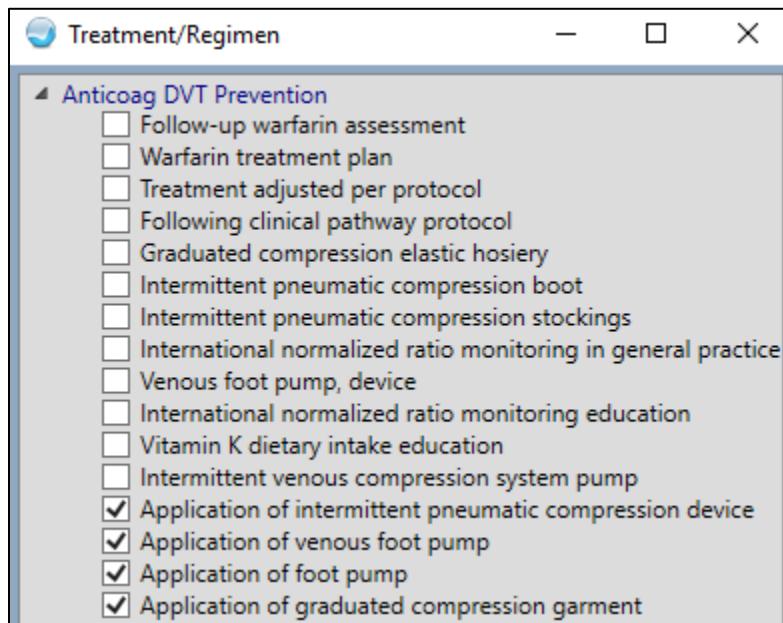


Figure 2-4: Treatment/Regimen Menu

c. Inpatient hospitalizations for patients who have documentation of a reason why no VTE prophylaxis was given:

- Between the day of arrival and the day after ICU admission (for patients directly admitted as inpatients to the ICU)
- The day of or the day after surgery end date (for surgeries that end the day of or the day after ICU admission or transfer)
- Personal health component refusal for anticoagulation therapy medication:
  - Patient Refusal examples: Drug declined by patient, Refusal of treatment by patient
  - Medical reason examples: Allergy to the drug, contraindicated, adverse reaction to the drug

5. Numerator Exclusions: NOT APPLICABLE

## 2.6 CMS334v6 Cesarean Birth

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS334v6.html>

## 2.6.1 Detail and Data Entry

1. Initial population: Inpatient hospitalizations for patients age  $\geq 8$  years and  $< 65$  admitted to the hospital for inpatient acute care who undergo a delivery procedure that ends during the measurement period:
  - a. ADT admission and discharge
  - b. Delivery procedure in EHR visit services ICD10PCS or PCC coding data entry
2. Denominator: Inpatient hospitalizations for nulliparous patients delivered of a live term singleton newborn  $\geq 37$  weeks gestation

**Note:** The eCQM and chart-based measure slightly digress in the denominator logic.

3. eCQM: The measure description states, "Nulliparous women with a term, singleton baby in a vertex position delivered by cesarean birth." ACOG defines nulliparous as a woman with a parity of zero. The eCQM logic concludes that a patient is nulliparous when ONE of the following is true:
  - a. Parity equals zero
  - b. Gravidity equals one
  - c. Preterm and Term births both equal zero
4. Chart Based: The chart-based measure evaluates the "Previous Live Births" data element. If the answer is "yes," the patient will be excluded from the denominator. If a patient had a previous stillbirth or fetal demise, the abstractor is instructed to answer "no," and the patient will remain in the denominator:
  - a. IPL SNOMED diagnosis or ICD 10 in V POV of Single Live Birth

Integrated Problem Maintenance - Add Problem

Problem ID: TST-5 Priority:  Pregnancy Related:  Use as POV:  Primary:  Save Cancel

\* SNOMED CT: Single live birth  Get SCT Pick list

\* Status:  Chronic  Sub-acute  Episodic  Social/Environmental  Inactive  Personal Hx

\* Routine/Admin:

\* Required Field

Provider Text: Single live birth Z37.0

Date of Onset:

Qualifiers: Severity:  Clinical Course:  Severity:  Clinical Course:  Episodicities:

Comments:  Is Injury

Care Plan Info: Add Visit Instruction / Care Plans / Goal Activities

Goal Notes	Care Plans	Visit Instructions	Care Planning Activities

Figure 2-5: Integrated Problem Maintenance—Add Problem Menu Prompt

b. EGA >=37 weeks entered into Vitals for V measurements or in PCC V Delivery EGA while adding newborn data

Default Units	18-Jan-2024 13:47	Range	Units
Vision Uncorrected			
Head Circumference			in
Abdominal Girth			cm
Estimated Gestational Age	37 5/7		
Fundal Height			cm
Fetal Heart Tones			
Presentation			

New Date/Time Update Reset

Figure 2-6: Vital Entry Menu, Estimated Gestational Age Selected

A Add a Newborn Entry  
N No Change

which action: N // Add a Newborn Entry  
Enter NEWBORN Delivery Date/Time: N (JAN 18, 2024@13:54:29)

Note: There are no EGA measurements on file between a day before and the delivery date. You will need to manually enter the EGA.

EGA AT DELIVERY: 37 5/7  
SEX AT BIRTH: F FEMALE  
LIVE/STILLBORN: L LIVE

Figure 2-7: Add a Newborn Entry menu

## c. Reproductive factors:

- Parity=Full Term and Premature births=0
- Gravidity=Total # of Pregnancies=1

Figure 2-8: Update Reproductive Factors

## 5. Denominator Exclusions: Inpatient hospitalizations for patients with any of the following conditions during the encounter

**Note:** The chart-based measure excludes single stillbirths and patients with multiple gestations from the denominator. These concepts are mutually exclusive of the denominator requirement of live singleton newborns, and therefore, the logic does not address single stillbirth nor multiple gestation.

- Abnormal presentation in vitals for V measurements
- Genital herpes
- Placenta previa
- Vasa previa

e. Placental accreta spectrum

Default Units	Value	Range	Units
Head Circumference			in
Abdominal Girth			cm
Estimated Gestational Age			
Fundal Height			cm
Fetal Heart Tones			
<input checked="" type="radio"/> Presentation			
Cervix Dilatation			cm

Figure 2-9: Vital Entry menu prompt

6. Numerator: Inpatient hospitalizations for patients who deliver by cesarean section:
  - a. Delivery procedure in EHR visit services ICD10PCS or PCC coding data entry
7. Numerator Exclusions: None

## 2.7 CMS506v7 Safe Use of Opioids–Concurrent Prescribing

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS506v7.html>

### 2.7.1 Details and Data Entry

1. Initial population: Inpatient hospitalizations that end during the measurement period, where the patient is 18 years of age and older at the start of the encounter and prescribed one or more new or continuing opioid or benzodiazepine at discharge:
  - a. ADT admission/discharge
  - b. Existing order or new prescription of one or more opioids or benzodiazepines still active at discharge:
    - Outpatient medications, Outside medication, and discharge medications all count
2. Denominator: initial population
3. Denominator Exclusions:
  - a. Inpatient hospitalizations where patients have cancer pain that begins before or during the encounter
  - b. IPL SNOMED or ICD 10 diagnosis in V POV of cancer

- c. Receiving palliative or hospice care (including comfort measures, terminal care, and dying care) during the encounter
    - IPL- Add Visit Instruction/ Care Plans/ Goal Activities component then Treatment Regime/Therapy/Follow-up- Palliative Care
    - Hospice care in Visit Services as a CPT/HCPC service code
  - d. Receiving medication for opioid use disorder, patients with sickle cell disease
  - e. Patients discharged to another inpatient care facility and patients who expire during the inpatient stay
    - Discharge UB-04 type
- OR
- IPL- Add Visit Instruction/ Care Plans/ Goal Activities component then Treatment Regime/Therapy/Follow-up- Disposition
4. Numerator: Inpatient hospitalizations where the patient is prescribed or continuing to take two or more opioids or an opioid and benzodiazepine at discharge active at discharge:
  - a. Existing order or new prescription of one or more opioids or benzodiazepines still active at discharge
    - Outpatient medications, outside medication, and discharge medications all count
5. Numerator Exclusions: NOT APPLICABLE

## 2.8 CMS816v4: Hospital Harm - Severe Hypoglycemia

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS816v4.html>

### 2.8.1 Details and Data Entry

1. Initial population: Inpatient hospitalizations where the patient is 18 years of age or older at the start of the encounter, and at least one hypoglycemic medication administration starts during the encounter
  - ADT admission discharge in hospital or Observation with admission to hospital within 59 minutes or Emergency Department admission in AMER then admission to hospital within 59 minutes
  - BCMA medication administration of hypoglycemic medication
2. Denominator: Equals initial population
3. Denominator Exclusions: None
4. Numerator: Inpatient hospitalizations where a severe hypoglycemic event occurred during the encounter. A severe hypoglycemic event is:

- a. A blood glucose test with a result less than 40 mg/dL in V Labs
  - Laboratory test performed and resulted in V lab based on glucose test LOINC
- b. A hypoglycemic medication was administered within 24 hours before the start of the severe hypoglycemic event (i.e., the glucose test with a result less than 40 mg/dL):
  - BCMA medication administration of hypoglycemic medication
- c. There was no subsequent repeat test for blood glucose with a result greater than 80 mg/dL within five minutes or less from the start of the initial blood glucose test with a result less than 40mg/dL:
  - Laboratory test performed and resulted in V lab based on glucose test LOINC

5. Only the first qualifying severe hypoglycemic event is counted in the numerator, and only one severe hypoglycemic event is counted per encounter. The 24-hour and 5-minute timeframes are based on the time the blood glucose was drawn, as this reflects the time the patient was experiencing that specific blood glucose level
6. Numerator Exclusions: Not Applicable
7. Denominator Exceptions: None

## 2.9 CMS819v3 Opioid-Related Adverse Events

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS819v3.html>

### 2.9.1 Detail and Data Entry

1. Initial population: Inpatient hospitalizations that end during the measurement period for patients age 18 and older and at least one opioid medication administration starts during the hospitalization outside of the operating room
  - a. ADT admit/discharge without a ward assigned in BCQM a NHSN location code of Operating Room/Suite 1096-7
  - b. Opioid administered via BCMA

**Note:** See BCQM manual to assign NHSN codes to wards via RPMS

2. Denominator: Equals Initial Population
3. Denominator Exclusions: None

4. Numerator: Inpatient hospitalizations where a non-enteral opioid antagonist administration starts during the hospitalization outside of the operating room and 12 hours or less following an opioid medication administered outside of the operating room. The route of administration of the opioid antagonist must be by intranasal spray, inhalation, intramuscular, subcutaneous, or intravenous injection. Only one numerator event is counted per encounter.
  - a. Medication administered via BCMA and medication route within the drug file must be linked to a SNOMED code via the MEDICATION ROUTES (51.2) file.
5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

## 2.10 CMS871v4 Hospital Harm–Severe Hyperglycemia

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS871v4.html>

### 2.10.1 Detail and Data Entry

1. Initial population: Inpatient hospitalizations where the patient is 18 years or older at the start of the admission with a discharge during the measurement period, as well as either:
  - a. ADT admission discharge in hospital or Observation with admission to hospital within 59 minutes or Emergency Department admission in AMER then admission to hospital within 59 minutes and one of the following:
    - A diagnosis of diabetes that starts before the end of the encounter or
      - IPL SNOMED or ICD10 in V POV diagnosis of diabetes
    - Administration of at least one dose of insulin or any hypoglycemic medication that starts during the encounter or
      - BCMA medication administration of hypoglycemic
    - Presence of at least one blood glucose value  $\geq 200$  mg/dL at any time during the encounter
      - Laboratory test performed and resulted in V lab based on glucose test LOINC
  - b. The measure includes inpatient hospitalizations that began in the emergency department or observation
2. Denominator: Equals initial population
3. Denominator Exclusions: Inpatient hospitalizations for patients with a glucose result of  $\geq 1000$  mg/dL anytime between 1 hour before the start of the encounter to 6 hours after the start of the encounter:

- Inpatient hospitalizations for patients who have comfort care measures ordered or provided during the encounter.
- Inpatient hospitalizations for patients who have a discharge disposition to home or to a health care facility for hospice care.
- Laboratory tests performed and resulted in V lab based on the glucose test LOINC

4. There are two Measure Observations:

- a. Measure Observation 1, associated with the denominator: The total number of eligible days of the inpatient hospitalization that match the initial population/denominator criteria
- b. Measure Observation 2, associated with the numerator: The total number of hyperglycemic days during the inpatient hospitalization. Days with a hyperglycemic event are defined as:
  - All days with a blood glucose level  $>300$  mg/dL (except those occurring in the first 24-hour period after admission to the hospital (including the emergency department and observation))
    - Laboratory test performed and resulted in V lab based on glucose test LOINC

OR

- All days where blood glucose was not measured, and it was preceded by two consecutive days where at least one glucose value during each of the two days was  $\geq 200$  mg/dL
  - Laboratory test performed and resulted in V lab based on glucose test LOINC

- c. The length of stay for all eligible inpatient hospitalizations is truncated to  $\leq$  ten days when the length exceeds ten days
- d. Do not count the last day if it was less than 24 hours, as this is not considered a full day

5. Numerator: Inpatient hospitalizations with a hyperglycemic event within the first ten days of the encounter minus the first 24 hours and the last period before discharge if less than 24 hours:
  - a. A hyperglycemic event is defined as:
    - A day with at least one blood glucose value  $>300$  mg/dL;
      - Laboratory test performed and resulted in V lab based on glucose test LOINC

OR

- A day where a blood glucose test was not done, and it was preceded by two consecutive days where at least one glucose value during each of the two days was  $\geq 200$  mg/dL
  - Laboratory test performed and resulted in V lab based on glucose test LOINC

6. Numerator Exclusions: Inpatient hospitalizations that meet the Denominator Exclusions:

- a. Inpatient hospitalizations for patients who have comfort care measures ordered or provided during the encounter.
- b. Inpatient hospitalizations for patients who have a discharge disposition to home or to a health care facility for hospice care.
- c. Laboratory tests performed and resulted in V lab based on the glucose test LOINC

7. Denominator Exceptions: None

## 2.11 CMS986v4 Global Malnutrition Composite Score

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS986v4.html>

### 2.11.1 Details and Data Entry

1. Initial population: Inpatient hospitalizations during the measurement period with length of stay of 24 hours or more among individuals 65 years of age and older at the start of the inpatient encounter
  - a. ADT admission/discharge
2. Measure Population: Equals initial population
3. Measure Population Exclusions: None
4. There are six Measure Observations:

This measure is constructed of four clinically eligible components aggregated as an arithmetic average of eligible hospitalizations. A single measure population is used to calculate the "TotalMalnutritionComponentsScore" and "TotalMalnutritionCompositeScore as Percentage". The initial population are hospitalizations during the measurement period for patients aged 65 years and greater with a length of stay of 24 hours and greater.

- a. "Measure Observation 1" = "Encounters with Malnutrition Risk Screening and Identified Result"

- "Measure Observation 1" identifies hospital encounters where a "Malnutrition Risk Screening" was performed with a current identified "Malnutrition Screening Not At Risk Result" or current "Malnutrition Screening At Risk Result".
  - Malnutrition Risk Screening (MRS) in V Measurements with any result
    - If Yes = 1
    - If No= 0
- b. "Measure Observation 2" = "Encounter with Nutrition Assessment and Identified Status"
  - "Measure Observation 2" identifies hospital encounters where a "Nutrition Assessment" was performed with a current identified "Nutrition Assessment Status Not or Mildly Malnourished", "Nutrition Assessment Status Moderately Malnourished", or "Nutrition Assessment Status Severely Malnourished".
    - Nutritional Risk Assessment Status in V Health Factors with any result
      - If Yes = 1
      - If No= 0
- c. "Measure Observation 3" = "Encounters with Malnutrition Diagnosis"
  - "Measure Observation 3" identifies hospital encounters where a current "Malnutrition Diagnosis" was documented.
    - IPL SNOMED or ICD 10 in V POV diagnosis of Malnutrition
      - If Yes = 1
      - If No= 0
- d. "Measure Observation 4" = "Encounters with Nutrition Care Plan"
  - "Measure Observation 4" identifies hospital encounters where a current "Nutrition Care Plan" was performed.
    - Patient education any topic with -NUT for -Nutrition in V PATIENT ED during the admission
      - If Yes = 1
      - If No= 0
- e. "Population 5 Measure Observation TotalMalnutritionComponentsScore" = ("Measure Observation 1" + "Measure Observation 2" + "Measure Observation 3" + "Measure Observation 4")
  - "Population 5 Measure Observation "TotalMalnutritionComponentsScore" Calculations

- For each hospitalization, Population Criteria 5 represents the subtotal of Measure Observations performed for Population Criteria 1, 2, 3, and 4.
- For the reporting facility, the Population Criteria 5 Aggregate Operator 'Count' counts the number of eligible hospitalizations during the measurement period.

f. "Population 6 Measure Observation TotalMalnutritionCompositeScore as Percentage" =  $100 * ("TotalMalnutritionComponentsScore" \text{ divided by } "TotalMalnutritionCompositeScore Eligible Denominators")$ .

- Population 6 Measure Observation "TotalMalnutritionCompositeScore as Percentage" Calculations:
  - For each hospitalization, Population Criteria 6 represents the sum of performed Measure Observations 1, 2, 3, and 4 divided by the number of clinically eligible denominators.
  - For the reporting facility, the Population Criteria 6 Aggregate Operator 'Average' averages the performance of each "TotalMalnutritionCompositeScore as Percentage" across all eligible hospitalizations during the measurement period.

g. "TotalMalnutritionCompositeScore Eligible Denominators" is always 4 except in the following two instances:

- If a "Malnutrition Risk Screening" was performed and a "Malnutrition Screening Not At Risk Result" was identified AND "Hospital Dietitian Referral" was not ordered, then the "TotalMalnutritionCompositeScore Eligible Denominators" is 1.
  - Malnutrition Risk Screening (MRS) in V Measurements with a result between 0-3
  - IPL problem entry of any of the following:
    - 306165000 Referral to hospital-based dietetics service (procedure)
    - 306354000 Referral to hospital-based dietitian (procedure)
- If a "Nutrition Assessment" was performed and a "Nutrition Status Not or Mildly Malnourished" was identified, then the "TotalMalnutritionCompositeScore Eligible Denominators" are 2.
  - Nutritional Risk Assessment Status in V Health Factors with "Nutrition Risk-Not or Mildly Malnourished"

h. The "TotalMalnutritionCompositeScore Eligible Denominators" equals 4:

- If a "Malnutrition Risk Screening" was performed AND a "Malnutrition Screening At Risk Result" was identified AND a "Nutrition Assessment" was not performed.

- Malnutrition Risk Screening (MRS) in V Measurements with a result between 4-7 and NO entry of Nutrition Risk Assessment Status in V health factors
- If a "Malnutrition Risk Screening" was not performed AND a "Nutrition Assessment" was not performed.
  - No entry of MRS in V measurements or Nutrition Risk Assessment Status in V health factors
- If a "Hospital Dietitian Referral" was ordered AND a "Nutrition Assessment" was not performed.
  - NO entry of Nutrition Risk Assessment Status in V health factors with an IPL problem entry of any of the following:
    - 306165000 Referral to hospital-based dietetics service (procedure)
    - 306354000 Referral to hospital-based dietitian (procedure)
  - If a "Nutrition Assessment Status Moderately Malnourished" OR "Nutrition Assessment Status Severely Malnourished" was identified.
    - Nutritional Risk Assessment Status in V Health Factors with "Nutrition Risk-Severely Malnourished"

## 2.12 CMS1028v3 Severe Obstetric Complications

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS1028v3.html>

### 2.12.1 Details and Data Entry

1. Initial population: Inpatient hospitalizations for patients age  $\geq 8$  years and  $< 65$  admitted to the hospital for inpatient acute care who undergo a delivery procedure with a discharge date that ends during the measurement period
  - a. ADT admission and discharge
  - b. Delivery procedure in EHR visit services ICD10PCS or PCC coding data entry
2. Denominator: Inpatient hospitalizations for patients delivering stillborn or live birth with  $\geq 20$  weeks, 0 days gestation completed
  - a. ADT admission
  - b. IPL SNOMED or ICD Diagnosis in V POV of stillborn or live birth
  - c. Estimated Gestational Age (EGA) in Measurements in V Measurements or V Delivery in PCC data entry  $\geq 20$

3. Denominator Exclusions: Inpatient hospitalizations for patients with a confirmed diagnosis of COVID with COVID-related respiratory condition or patients with a confirmed diagnosis of COVID with COVID-related respiratory procedure during the encounter
  - a. IPL SNOMED or ICD Diagnosis in V POV
  - b. Respiratory procedure in EHR visit services ICD10PCS or PCC coding data entry No or Unable to Determine
4. Numerator: Two numerator populations are defined for this measure:
  - a. All Severe Obstetric Complications (SOC).
  - b. SOC excluding encounters where transfusion was the only SOC.

Inpatient hospitalizations for patients with severe obstetric complications (not present on admission that occur during the current delivery encounter), including the following:

  - c. Severe maternal morbidity diagnoses (see list below)
    - IPL SNOMED or ICD Diagnosis in V POV
    - ICD diagnosis with Present on Admission No, in PCC data entry
  - d. Severe maternal morbidity procedures (see list below)
    - Procedure in EHR visit services ICD10PCS or PCC coding data entry
  - e. Discharge disposition of expired
    - ADT discharge status type as Expired UB04 code 20
    - Please note that present on admission codes may be extracted from billing/claims data that was entered by coding staff.
5. Severe Maternal Morbidity Diagnoses:
  - Cardiac (ICD10 in V POV)
    - Acute heart failure
    - Acute myocardial infarction
    - Aortic aneurysm
    - Cardiac arrest/ventricular fibrillation
    - Heart failure/arrest during procedure or surgery
  - Hemorrhage (ICD10 in V POV)
    - Disseminated intravascular coagulation
    - Shock
  - Renal (ICD10 in V POV)
    - Acute renal failure
  - Respiratory (ICD10 in V POV)

- Adult respiratory distress syndrome
  - Pulmonary edema
- Sepsis (ICD10 in V POV)
- Other OB (ICD10 in V POV)
  - Air and thrombotic embolism
  - Amniotic fluid embolism
  - Eclampsia
  - Severe anesthesia complications
- Other Medical (ICD10 in V POV)
  - Puerperal cerebrovascular disorder
  - Sickle cell disease with crisis

6. Severe Maternal Morbidity Procedures: (ICD10PCS in V PROCEDURES)
  - Blood transfusion
  - Conversion of cardiac rhythm
  - Temporary tracheostomy
  - Ventilation
7. Denominator Exceptions: None
8. Numerator Exclusions: Inpatient hospitalizations with blood transfusion or hysterectomy with a diagnosis of placenta percreta or placenta increta and no additional severe obstetrical complications.

## 3.0 Eligible Hospital Hybrid Measures

### 3.1 CMS529v5 Core Clinical Data Elements for the Hybrid Hospital-Wide Readmission (HWR) Measure with Claims and Electronic Health Record Data

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS529v5.html>

#### 3.1.1 Details and Data Entry

1. Initial population: All Medicare FFS and MA hospitalizations for patients aged 65 and older at the start of an inpatient admission, where the length of stay is less than 365 days, and the hospitalization ends during the measurement period.
  - a. Medicare Insurance active in patient registration
  - b. ADT admission discharge (Must have an observation or ER/ED admission discharge prior to full admission)
  - c. Core clinical data elements listed below are from V measurements and V lab LOINC codes

**Note:** All Medicare FFS and MA hospitalizations meeting the above criteria should be included, regardless of whether FFS/MA is the primary, secondary, or tertiary payer.

**Supplemental Data Elements:** For encounters in the initial population, report the FIRST value for vital signs resulting within the 24 hours prior to the inpatient admission. If no values resulted in the 24 hours before the admission (for example, for patients directly admitted to the hospital), report the first value resulting within 2 hours after the start of the inpatient admission.

For laboratory test results, report the first value that resulted within 24 hours before admission. If there are no values in the 24 hours prior to admission, report the first value resulting within 24 hours after the start of the inpatient admission.

First values for the core clinical data elements may result in the emergency department or other hospital outpatient locations within the hospital facility before a patient is subsequently admitted to the same hospital. First values for these data elements may also result in an inpatient location for directly admitted patients who do not receive care in the emergency department or other hospital outpatient locations before admission.

The core clinical data elements are as follows:

- Bicarbonate (or carbon dioxide, see Bicarbonate Lab Test value set)
- Creatinine

- Glucose
- Heart rate
- Hematocrit
- Oxygen saturation (by pulse oximetry)
- Potassium
- Respiratory rate
- Sodium
- Systolic blood pressure
- Temperature
- Weight
- White blood cell count

**Note:** Do not report ALL values on an encounter during their entire admission. Only report the FIRST resulted value for EACH core clinical data element collected in the appropriate timeframe, if available.

1. Denominator: NOT APPLICABLE
2. Denominator Exclusions: NOT APPLICABLE
3. Numerator: NOT APPLICABLE
4. Numerator Exclusions: NOT APPLICABLE
5. Denominator Exceptions: NOT APPLICABLE

### 3.2 CMS844v5 Core Clinical Data Elements for the Hybrid Hospital-Wide (All-Condition, All-Procedure) Risk-Standardized Mortality Measure (HWM)

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS844v5.html>

#### 3.2.1 Details and Data Entry

1. Initial population: All Medicare FFS and MA hospitalizations for patients age 65 through 94 years at the start of an inpatient admission, where the length of stay is less than 365 days, and the hospitalization ends during the measurement period.
  - a. Medicare Insurance active in patient registration

- b. ADT admission discharge (Must have an Observation or ER/ED admission discharge prior to full admission)
- c. Core Clinical Data Elements listed below are from V Measurements and V lab LOINC codes

**Note:** All Medicare FFS and MA hospitalizations meeting the above criteria should be included, regardless of whether Medicare FFS/MA is the primary, secondary, or tertiary payer.

**Supplemental Data Elements:** For encounters in the initial population, report the FIRST value for vital signs resulted within the 24 hours prior to the inpatient admission. If no values were resulted in the 24 hours prior to the admission (for example, for patients directly admitted to the hospital), report the first value resulted within 2 hours after the start of the inpatient admission.

For laboratory test results, report the first value resulted within the 24 hours prior to admission. If there are no values in the 24 hours prior to admission, report the first value resulted within 24 hours after the start of the inpatient admission.

First values for the core clinical data elements may be resulted in the emergency department or other hospital outpatient locations within the hospital facility before a patient is subsequently admitted to the same hospital. First values for these data elements may also be resulted in an inpatient location for directly admitted patients who do not receive care in the emergency department or other hospital outpatient locations before admission.

The HWM-core clinical data elements are as follows:

- Bicarbonate (or carbon dioxide, see Bicarbonate Lab Test value set)
- Creatinine
- Heart rate
- Hematocrit
- Oxygen saturation (by pulse oximetry)
- Platelet
- Sodium
- Systolic blood pressure
- Temperature
- White blood cell count

**Note:** Do not report ALL values on an encounter during their entire admission. Only report the FIRST resulted value for EACH core clinical data element collected in the appropriate timeframe, if available.

For every patient in the initial population, also identify payer, race, ethnicity and sex.

1. Denominator: NOT APPLICABLE
2. Denominator Exclusions: NOT APPLICABLE
3. Numerator: NOT APPLICABLE
4. Numerator Exclusions: NOT APPLICABLE
5. Denominator Exceptions: NOT APPLICABLE

## 4.0 Eligible Clinician Measures

### 4.1 CMS2v14 Preventive Care and Screening: Screening for Depression and Follow-Up Plan

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS2v14.html>

#### 4.1.1 Details and Data Entry

1. Initial population: All patients aged 12 years and older at the beginning of the measurement period with at least one eligible encounter during the measurement period:
  - a. Patient of age with one qualifying encounter examples: Ambulatory, Telephone, Physical therapy, etc.
2. Denominator: Equals initial population
3. Denominator Exclusions: Patients who have been diagnosed with depression or with bipolar disorder
  - a. IPL SNOMED problem diagnosis or ICD 10 in V POV or depression or bipolar disorder
4. Numerator: Patients screened for depression on the date of the encounter or up to 14 days prior to the date of the encounter using an age-appropriate standardized tool AND if positive, a follow-up plan is documented on the date of the eligible encounter
  - a. Vitals for V Measurement scoring positive in either PHQ9, PHQ9, or PHQ-T depending on age
    - Follow up documented in TREG to IPL entry in the Treatment\Regime\Therapy- Follow-up
    - Depression medication order
    - Patient referral in RCIS
    - Consult order
  - b. Exam for Depression screening resulted positive:
    - Follow up documented in TREG to IPL entry in the Treatment\Regime- Follow-up
    - Depression medication order
    - Patient referral in RCIS
    - Consult order

**Note:** Negative results in both Measurements and Exams will count in the numerator.

5. Numerator Exclusions: NOT APPLICABLE

## 4.2 CMS22v13 Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS22v13.html>

### 4.2.1 Details and Data Entry

1. Initial population: All patient visits for patients aged 18 years and older at the beginning of the measurement period
  - a. Ambulatory service category and visit services with office visit CPT or preventative care CPT are some examples of qualifying encounters
2. Denominator: Equals initial population
3. Denominator Exclusions: The patient has an active diagnosis of hypertension
  - a. IPL SNOMED or ICD 10 in V POV active diagnosis for hypertension
4. Numerator: Patient visits where patients were screened for high blood pressure AND have a recommended follow-up plan documented, as indicated if the blood pressure is elevated or hypertensive
  - a. Vital measurement entry for blood pressure if high
    - Follow-up documented in TREG to IPL entry in the Treatment\Regime\Follow up- Follow-up
    - Prescribed diet education documented in TREG to IPL entry Treatment\Regimen\Follow up- Weight Management
    - Patient referral in RCIS to primary care or alternate provider
    - Patient referral in RCIS for alcohol counseling
    - Patient referral in RCIS to dietitian
    - Patient education for Lifestyle Adaptations
    - Medication order for Pharmacologic Therapy or Adverse Reaction. Not Applicable allergy to Pharmacologic Therapy
5. Denominator Exceptions: Documentation of medical reason(s) for not screening for high blood pressure (e.g., patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status)

- a. EHR Personal Health Refusal for blood pressure measurement examples of reasons: Contraindicated, Not Indicated, Absent Response to Treatment
- 6. Documentation of patient reason(s) for not screening for blood pressure measurements or for not ordering an appropriate follow-up intervention if patient BP is elevated or hypertensive (e.g., patient refuses)
  - a. EHR Personal Health Refusal for blood pressure measurement examples of reasons: Patient Refused
- 7. Numerator Exclusions: NOT APPLICABLE

## 4.3 CMS50v13 Closing the Referral Loop: Receipt of Specialist Report

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS50v13.html>

### 4.3.1 Detail and Data Entry

- 1. Initial population: Number of patients, regardless of age, who had a visit during the measurement period and were referred by one provider to another provider
  - a. Ambulatory service category and visit services with office visit CPT or preventative care CPT are some examples of qualifying encounters
  - b. Patient referral in the RCIS package approved during the measurement period
- 2. Denominator: Equals initial population
- 3. Denominator Exclusions: None
- 4. Numerator: Number of patients with a referral, for which the referring provider received a report from the provider to whom the patient was referred
  - a. Patient referral closed-completed from RCIS package and provider received the consultation report back and acknowledged via the EHR Clinical Consultation button (referral needs to be highlighted before utilizing the button)

Referral Date	Purpose	Referring Provider	Referral Number	Status	Facility Referred To	Appointment Date/Time	Clinical Consultation	Printed By	Print Date	Type
SEP 12, 2019	Weight gain	WETZEL, MIKE	2321011800047	ACTIVE	2013 DEMO HOSPITAL		REVIEWED			

Figure 4-1: Clinical Consultation tab

- 5. Numerator Exclusions: NOT APPLICABLE

## 4.4 CMS69v13 Preventive Care and Screening: BMI Screening and Follow-Up Plan (MVP only)

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS69v13.html>

### 4.4.1 Detail and Data Entry

1. Initial population: All patients aged 18 and older on the date of the encounter with at least one eligible encounter during the measurement period
  - a. An ambulatory medical, dental, counseling encounter for a patient 18+ before the beginning of the measurement period
2. Denominator: Equals initial population
3. Denominator Exclusions: Patients who are pregnant or patients receiving palliative or hospice care
  - a. IPL SNOMED or ICD 10 in V POV diagnosis of pregnancy during the measurement period
  - b. TREG entry in Palliative Care
  - c. Visit services HCPC code for Hospice care
4. Numerator: Patients with a documented BMI during the encounter or during the previous twelve months, AND when the BMI is outside of normal parameters, a follow-up plan is documented during the encounter or during the previous twelve months of the current encounter
  - a. Vital measurement entry for both height and weight to calculate the BMI in V Measurements
  - b. TREG entry in Weight Management for prescribed diet or exercise therapy
  - c. Medication ordered for above or below average BMI (Outpatient prescribed or Outside documented)
  - d. Patient referral in RCIS examples: referral to mental health counselor, referral to psychiatrist, referral to physical activity program
  - e. Visit services CPT/HCPC code for nutrition education or exercise education
  - f. Surgical procedures CPT in visit services for Above normal BMI
5. Numerator Exclusions: NOT APPLICABLE

6. Denominator Exceptions: Patients with a documented medical reason for not documenting BMI or for not documenting a follow-up plan for a BMI outside normal parameters (e.g., elderly patients 65 years of age or older for whom weight reduction/weight gain would complicate other underlying health conditions such as illness or physical disability, mental illness, dementia, confusion, or nutritional deficiency such as vitamin/mineral deficiency; patients in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status)
7. Patients who refuse measurement of height and/or weight
  - a. Personal health refusal for height and/or weight measurement

## 4.5 CMS117v13 Childhood Immunization Status

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS117v13.html>

### 4.5.1 Detail and Data Entry

1. Initial population: Children who turn 2 years of age during the measurement period and who have a visit during the measurement period
2. Denominator: Equals initial population
3. Denominator Exclusions: Exclude children who are in hospice care for any part of the measurement period.
  - a. Visit service HCPC code for hospice services
  - b. TREG entry in the IPL for hospice care in Palliative Care category

Exclude children with any of the following on or before the child's second birthday:

  - Severe combined immunodeficiency
  - Immunodeficiency
  - Human Immunodeficiency Virus (HIV)
  - Lymphoreticular cancer, multiple myeloma or leukemia
  - Intussusception
  - c. IPL SNOMED or ICD 10 in V POV diagnosis or condition listed above
4. Numerator: Children who have evidence showing they received recommended vaccines, had documented history of the illness, had a seropositive test result, or had an allergic reaction to the vaccine by their second birthday
  - a. Administered or documented historical immunization in the EHR meeting the following criteria below for each

- b. Immunization contraindicated with anaphylaxis reason for not administering immunization meeting the following criteria below for each
- c. IPL SNOMED or ICD 10 in V POV is the history of illness meeting the criteria below for each

### **Diphtheria, Tetanus, and Pertussis (DTaP) Vaccination**

Children with any of the following on or before the child's second birthday meet the criteria:

- At least four DTaP vaccinations, with different dates of service. Do not count a vaccination administered prior to 42 days after birth
- Anaphylaxis (immunization contraindication) due to diphtheria, tetanus, or pertussis vaccine
- Encephalitis due to diphtheria, tetanus, or pertussis vaccine

### **Poliovirus Vaccination (IPV)**

Children with either of the following meet criteria:

- At least three IPV vaccinations, with different dates of service on or before the child's second birthday. Do not count a vaccination administered prior to 42 days after birth.
- Anaphylaxis (immunization contraindication) due to poliovirus vaccine

### **Measles, Mumps, and Rubella Vaccination (MMR)**

Children with either of the following meet criteria:

- At least one MMR vaccination on or between the child's first and second birthdays
- All the following anytime on or before the child's second birthday (on the same or different date of service):
  - History of measles
  - History of mumps
  - History of rubella
- Anaphylaxis (immunization contraindication) due to MMR vaccine

### **Haemophilus Influenzae Type B Vaccination (HiB)**

Children with either of the following meet criteria on or before the child's second birthday:

- At least three HiB vaccinations, with different dates of service. Do not count a vaccination administered prior to 42 days after birth
- Anaphylaxis (immunization contraindication) due to the HiB vaccine

## **Hepatitis B**

Children with any of the following on or before the child's second birthday meet criteria:

- At least three hepatitis B vaccinations, with different dates of service
  - One of the three vaccinations can be a newborn hepatitis B vaccination during the eight-day period that begins on the date of birth and ends seven days after the date of birth. For example, if the member's date of birth is December 1, the newborn hepatitis B vaccination must be on or between December 1 and December 8
- Anaphylaxis (immunization contraindication) due to the hepatitis B vaccine
- History of hepatitis B illness

## **Varicella Vaccination (VZV)**

Children with either of the following meet criteria:

- At least one VZV vaccination, with a date of service on or between the child's first and second birthdays
- Anaphylaxis (immunization contraindication) due to the varicella vaccine
- History of varicella zoster (e.g., chicken pox) illness on or before the child's second birthday

## **Pneumococcal Conjugate**

Children with either of the following meet criteria:

- At least four pneumococcal conjugate vaccinations, with different dates of service on or before the child's second birthday. Do not count a vaccination administered prior to 42 days after birth.
- Anaphylaxis (immunization contraindication) due to the pneumococcal conjugate vaccine

## **Hepatitis A**

Children with either of the following meet criteria:

- At least one hepatitis A vaccination, with a date of service on or between the child's first and second birthdays
- Anaphylaxis (immunization contraindication) due to the hepatitis A vaccine
- History of hepatitis A illness on or before the child's second birthday

## **Rotavirus**

Children with any of the following meet criteria:

- At least two doses of the two-dose rotavirus vaccine on different dates of service on or before the child's second birthday. Do not count a vaccination administered prior to 42 days after birth

- At least three doses of the three-dose rotavirus vaccine on different dates of service on or before the child's second birthday. Do not count a vaccination administered prior to 42 days after birth
- At least one dose of the two-dose rotavirus vaccine and at least two doses of the three-dose rotavirus vaccine, all on different dates of service, on or before the child's second birthday. Do not count a vaccination administered prior to 42 days after birth
- Anaphylaxis (immunization contraindication) due to the rotavirus vaccine on or before the child's second birthday

### **Influenza**

Children with any of the following meet criteria:

- At least two influenza vaccinations, with different dates of service on or before the child's second birthday. Do not count a vaccination administered prior to 6 months (180 days) after birth
  - One of the two vaccinations can be an LAIV vaccination administered on the child's second birthday. Do not count an LAIV vaccination administered before the child's second birthday
- Anaphylaxis (immunization contraindication) due to the influenza vaccine

1. Numerator Exclusions: NOT APPLICABLE
2. Denominator Exceptions: None

## **4.6 CMS122v13 Diabetes: Hemoglobin A1c Poor Control (> 9%)**

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS122v13.html>

### **4.6.1 Detail and Data Entry**

1. Initial population: Patients 18-75 years of age with diabetes with a visit during the measurement period
  - Visit services with office visit CPT, preventative care CPT, Wellness, Telephone are some examples of qualifying encounters
  - IPL SNOMED or ICD 10 in V POV diagnosis of diabetes
2. Denominator: Equals initial population
3. Denominator Exclusions:
  - a. Exclude patients who are in hospice care for any part of the measurement period

- Hospice care service HCPC code in the Visit Services
- Hospice Care TREG entry in the IPL Palliative care category
- Inpatient hospitalization discharged to Hospice in ADT

b. Exclude patients 66 and older by the end of the measurement period who are living long term in a nursing home any time on or before the end of the measurement period

- CPT for nursing home services in Visit Services

c. Exclude patients 66 and older by the end of the measurement period with an indication of frailty for any part of the measurement period who also meet any of the following advanced illness criteria:

- Advanced illness diagnosis during the measurement period or the year prior
  - Frailty device issued in Visit Services with HCPC code AND IPL SNOMED or ICD 10 in V POV diagnosis of advanced illness
- OR taking dementia medications during the measurement period or the year prior
  - Active medication order prescribed in Outpatient medications or documented in Outside medications

d. Exclude patients receiving palliative care for any part of the measurement period

- TREG entry in the IPL in the Palliative care category

4. Numerator: Patients whose most recent glycemic status assessment (HbA1c or GMI) (performed during the measurement period) is >9.0% or is missing, or was not performed during the measurement period

- a. Laboratory test resulted with LOINC in V lab for HbA1c >9.0% or NO laboratory test resulted for HbA1c

5. Numerator Exclusions: NOT APPLICABLE

6. Denominator Exceptions: None

## 4.7 CMS124v13 Cervical Cancer Screening

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS124v13.html>

### 4.7.1 Detail and Data Entry

1. Initial population: Women 23-64 years of age with a visit during the measurement period

- a. Visit services with office visit CPT, preventative care CPT, Wellness, Telephone are some examples of qualifying encounters
2. Denominator: Equals initial population
3. Denominator Exclusions: Exclude patients who are in hospice care for any part of the measurement period. Women who had a hysterectomy with no residual cervix or a congenital absence of cervix. Exclude patients receiving palliative care for any part of the measurement period
  - a. CPT procedure code in Visit Services for hysterectomy
  - b. SNOMED entry in IPL for hysterectomy
  - c. Hospice care service HCPC code in the Visit Services
  - d. Hospice Care TREG entry in the IPL in the Palliative Care category
  - e. Inpatient hospitalization discharged to Hospice in ADT
  - f. TREG entry in the IPL in the palliative care category
4. Numerator: Women with one or more screenings for cervical cancer. Appropriate screenings are defined by any one of the following criteria:
  - a. Cervical cytology performed during the measurement period or the two years prior to the measurement period for women who are at least 21 years old at the time of the test
    - Laboratory test performed and resulted in V lab with LOINC
  - b. Cervical human papillomavirus (HPV) testing performed during the measurement period or the four years prior to the measurement period for women who are 30 years or older at the time of the test
    - Laboratory test performed and resulted in V lab with LOINC
5. Numerator Exclusions: NOT APPLICABLE
6. Denominator Exceptions: None

## 4.8 CMS125v13 Breast Cancer Screening

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS125v13.html>

### 4.8.1 Detail and Data Entry

1. Initial population: Women 52-74 years of age by the end of the measurement period with a visit during the measurement period
  - a. Visit services with preventative care, office visit, wellness and telephone are some examples of qualifying encounters
2. Denominator: Equals initial population

3. Denominator Exclusions:

- a. Exclude patients who are in hospice care for any part of the measurement period
  - Hospice care service HCPC code in the Visit Services
  - Hospice Care TREG entry in the IPL Palliative care category
  - Inpatient hospitalization discharged to Hospice in ADT
- b. Women who had a bilateral mastectomy or who have a history of a bilateral mastectomy or for whom there is evidence of a right and a left unilateral mastectomy on or before the end of the measurement period.
  - Mastectomy procedure entered in Visit Services or historical procedures both go to V CPT laterality must be specified in the modifiers (Bilateral-50, Left-LT, or Right-RT)
- c. Exclude patients 66 and older by the end of the measurement period with an indication of frailty for any part of the measurement period who also meet any of the following advanced illness criteria:
  - Advanced illness diagnosis during the measurement period or the year prior
    - Frailty device issued in Visit Services with HCPC code AND IPL SNOMED or ICD 10 in V POV diagnosis of advanced illness
  - OR taking dementia medications during the measurement period or the year prior
    - Active medication order prescribed in Outpatient medications or documented in Outside medications
- d. Exclude patients receiving palliative care for any part of the measurement period
  - TREG entry in the IPL in the Palliative care category

4. Numerator: Women with one or more mammograms any time on or between October 1 two years prior to the measurement period and the end of the measurement period

- a. Radiology procedure completed in V Radiology
- b. mammography procedure code entered in visit services or historical CPT entered in Historical Procedure

5. Numerator Exclusions: Not Applicable

6. Denominator Exceptions: None

## 4.9 CMS130v13 Colorectal Cancer Screening (MVP only)

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS130v13.html>

### 4.9.1 Detail and Data Entry

1. Initial population: Patients 46-75 years of age by the end of the measurement period with a visit during the measurement period
  - a. Visit services with preventative care, office visits, wellness, and telephone are some examples of qualifying encounters
2. Denominator: Equals initial population
3. Denominator Exclusions :
  - a. Exclude patients who are in hospice care for any part of the measurement period
    - Hospice care service HCPC code in the Visit Services
    - Hospice Care TREG entry in the IPL Palliative care category
    - Inpatient hospitalization discharged to Hospice in ADT
  - b. Exclude patients with a diagnosis or past history of total colectomy or colorectal cancer.
    - Total colectomy procedure in Visit Services as a CPT or ICD10PCS or IPL SNOMED entry in the IPL
    - IPL SNOMED or ICD10 diagnosis of colon cancer in V POV
  - c. Exclude patients 66 and older by the end of the measurement period with an indication of frailty for any part of the measurement period who also meet any of the following advanced illness criteria:
    - Advanced illness diagnosis during the measurement period or the year prior
    - OR taking dementia medications during the measurement period or the year prior
  - d. Exclude patients 66 and older by the end of the measurement period who are living long term in a nursing home any time on or before the end of the measurement period.
  - e. Exclude patients receiving palliative care for any part of the measurement period.
    - TREG entry in the IPL in the Palliative care category
4. Numerator: Patients with one or more screenings for colorectal cancer. Appropriate screenings are defined by any one of the following criteria:

- a. Fecal occult blood test (FOBT) during the measurement period
  - Laboratory test performed and resulted to V LAB either POC in-house or outside reference lab
- b. FIT-DNA during the measurement period or the two years prior to the measurement period
  - Laboratory test performed and resulted to V LAB either POC in-house or outside reference lab
- c. Flexible sigmoidoscopy during the measurement period or the four years prior to the measurement period
  - Sigmoidoscopy procedure CPT/HCPC code in Visit Services
  - Sigmoidoscopy procedure in IPL SNOMED
- d. CT Colonography during the measurement period or the four years prior to the measurement period
  - Radiology procedure ordered and completed in V Radiology
  - CT Colonography procedure code entered in visit services or historical CPT entered in Historical Procedure
- e. Colonoscopy during the measurement period or the nine years prior to the measurement period
  - Colonoscopy procedure CPT/HCPC code in Visit Services
  - Colonoscopy procedure in IPL SNOMED

5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

## 4.10 CMS131v13 Diabetes: Eye Exam

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS131v13.html>

### 4.10.1 Detail and Data Entry

1. Patients 18-75 years of age by the end of the measurement period, with diabetes with a visit during the measurement period
  - a. Visit services with preventative care, office visit, wellness and telephone are some examples of qualifying encounters
2. Denominator: Equals initial population
3. Denominator Exclusions:

- a. Exclude patients who are in hospice care for any part of the measurement period
  - Hospice care service HCPC code in the Visit Services
  - Hospice Care TREG entry in the IPL Palliative care category
  - Inpatient hospitalization discharged to Hospice in ADT
- b. Exclude patients 66 and older by the end of the measurement period with an indication of frailty for any part of the measurement period who also meet any of the following advanced illness criteria:
  - Advanced illness diagnosis during the measurement period or the year prior
    - Frailty device issued in Visit Services with HCPC code AND IPL SNOMED or ICD 10 in V POV diagnosis of advanced illness
  - OR taking dementia medications during the measurement period or the year prior
    - Active medication order prescribed in Outpatient medications or documented in Outside medications
- c. Exclude patients 66 and older by the end of the measurement period who are living long term in a nursing home any time on or before the end of the measurement period
- d. CPT for nursing home services in Visit ServicesExclude patients receiving palliative care for any part of the measurement period
  - TREG entry in the IPL in the Palliative care category

4. Numerator: Patients with an eye screening for diabetic retinal disease. This includes diabetics who had one of the following:
  - a. Diabetic with a diagnosis of retinopathy in any part of the measurement period and a retinal or dilated eye exam by an eye care professional in the measurement period
    - IPL SNOMED or ICD 10 in V POV diagnosis of diabetes and retinopathy and Exam in EHR for Diabetic Eye Exam
  - b. Diabetic with no diagnosis of retinopathy in any part of the measurement period and a retinal or dilated eye exam by an eye care professional in the measurement period or the year prior to the measurement period
    - IPL SNOMED or ICD 10 in V POV diagnosis of diabetes and Exam in EHR for Diabetic Eye Exam
5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

## 4.11 CMS137v13 Initiation and Engagement of Alcohol and Other Drug Dependence Treatment

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS138v13.html>

### 4.11.1 Detail and Data Entry

1. Initial population: Patients age 13 years of age and older as of the start of the measurement period who were diagnosed with a new SUD episode during a visit between January 1 and November 14 of the measurement period
  - a. Emergency department visit, inpatient or observation admission/discharge, office visit, telephone visit, and online assessment are examples of a qualifying encounter
2. Denominator: Equals initial population
3. Denominator Exclusions: Exclude patients who are in hospice care for any part of the measurement period Hospice care service HCPC code in the Visit Services
  - a. Hospice Care TREG entry in the IPL Palliative care category
  - b. Inpatient hospitalization discharged to Hospice in ADT
4. Numerator:
  - a. Numerator 1: Initiation of treatment includes either an intervention or medication for the treatment of SUD within 14 days of the new SUD episode
    - SUD services CPT/HCPC code in Visit Services
    - Substance abuse disorder performed in TREG entry in the IPL Substance abuse category
    - SUD medication order for treatment in Outpatient or Outside medications
  - b. Numerator 2: Engagement in ongoing SUD treatment within 34 days of initiation includes:
    - A long-acting SUD medication on the day after the initiation through 34 days after the initiation of treatment  
AND
    - One of the following options on the day after the initiation of treatment through 34 days after the initiation of treatment:
      - Two engagement visits
      - Two engagement medication treatment events
      - One engagement visit and one engagement medication treatment event
5. Numerator Exclusions: Not Applicable

6. Denominator Exceptions: None

## 4.12 CMS138v13 Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS138v13.html>

### 4.12.1 Detail and Data Entry

1. Initial population: All patients aged 18 years and older seen for at least two visits or at least one preventive visit during the measurement period
  - a. Two qualifying visit encounter examples are office visit, wellness, physical therapy, ophthalmology and telephone
  - b. Preventative visits are documented in the EHR within the Evaluation Management in the Preventative Medicine services, or individual or group preventative counseling CPT within the Visit Services
2. Denominator:
  - a. Population 1: Equals initial population
  - b. Population 2: Equals initial population who were screened for tobacco use during the measurement period and identified as a tobacco user
    - Tobacco use health factors (Smoke, Smokeless, or E-Cigarette) documented in the EHR with a user status
  - c. Population 3: Equals initial population
3. Denominator Exclusions: Exclude patients who are in hospice care for any part of the measurement period
  - a. Hospice care service HCPC code in the Visit Services
  - b. Hospice Care TREG entry in the IPL Palliative care category
  - c. Inpatient hospitalization discharged to Hospice in ADT
4. Numerator:
  - a. Population 1: Patients who were screened for tobacco use at least once during the measurement period
    - Tobacco use health factor (Smoke, Smokeless, or E-Cigarette) documented
  - b. Population 2: Patients who received tobacco cessation intervention during the measurement period or in the six months prior to the measurement period
    - Tobacco cessation CPT in Visit Services
    - Tobacco cessation medication in Outpatient or Outside medications

- Tobacco patient education topic “TO-XX”
- Patient referral for Tobacco Cessation in EHR/RCIS
- TREG entry in the IPL for “Referral to tobacco quit line” in the Tobacco category

c. Population 3: Patients who were screened for tobacco use at least once during the measurement period AND who received tobacco cessation intervention during the measurement period or in the six months prior to the measurement period if identified as a tobacco user

- Tobacco use health factor (Smoke, Smokeless, or E-Cigarette) documented AND one of the following:
  - Tobacco cessation CPT in Visit Services
  - Tobacco cessation medication in Outpatient or Outside medications
  - Tobacco patient education topic “TO-XX”
  - Patient referral for Tobacco Cessation in EHR/RCIS
  - TREG entry in the IPL for “Referral to tobacco quit line” in the Tobacco category

5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

## 4.13 CMS139v13 Falls: Screening for Future Fall Risk

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS139v13.html>

### 4.13.1 Detail and Data Entry

1. Initial population: Patients aged 65 years and older at the start of the measurement period with a visit during the measurement period
  - a. Qualifying visit encounter examples are office visit, wellness, physical therapy, ophthalmology and telephone
2. Denominator: Equals initial population
3. Denominator Exclusions: Exclude patients who are in hospice care for any part of the measurement period
  - a. Hospice care service HCPC code in the Visit Services
  - b. Hospice Care TREG entry in the IPL Palliative care category
  - c. Inpatient hospitalization discharged to Hospice in ADT
4. Numerator: Patients who were screened for future fall risk at least once within the measurement period

- a. Fall Risk Exam code 37 documented in the EHR or PCC
5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

## 4.14 CMS144v13 Heart Failure: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD)

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS144v13.html>

### 4.14.1 Detail and Data Entry

1. Initial population: All patients aged 18 years and older with two qualifying encounters during the measurement period and a diagnosis of heart failure on or before at least one qualifying encounter
  - a. Qualifying encounter examples are:
    - Service Category: Ambulatory, Telephone, and Telemedicine
    - b. IPL SNOMED or ICD10 in V POV diagnosis of heart failure
2. Denominator: Equals initial population with a current or prior LVEF <= 40%
  - a. IPL SNOMED or ICD10 in V POV diagnosis of both heart failure AND moderate or severe left ventricular failure
3. Denominator Exclusions: Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD) prior to the end of the outpatient encounter with Moderate or Severe LVSD
  - a. Has Heart Transplant
    - CPT code in Visit Services
  - b. Has Heart Transplant Related Diagnosis
    - IPL SNOMED or ICD10 in V POV diagnosis
  - c. Has Left Ventricular Assist Device Implanted
    - CPT code in Visit Services
  - d. Has Left Ventricular Assist Device Related Diagnosis
    - IPL SNOMED or ICD10 in V POV diagnosis
4. Numerator: Patients who were prescribed or already taking beta-blocker therapy during the measurement period
  - a. Active beta-blocker therapy medication in Outpatient or Outside
5. Numerator Exclusions: Not Applicable

6. Denominator Exceptions: Documentation of medical reason(s) for not prescribing beta-blocker therapy:
  - a. Arrhythmia
    - IPL SNOMED or ICD10 in V POV diagnosis
  - b. Asthma
    - IPL SNOMED or ICD10 in V POV diagnosis
  - c. Bradycardia
    - IPL SNOMED or ICD10 in V POV diagnosis
  - d. Hypotension
    - IPL SNOMED or ICD10 in V POV diagnosis
  - e. Patients with atrioventricular block without cardiac pacer
    - IPL SNOMED or ICD10 in V POV diagnosis and NO history of CPT/HCPC code for heart pacer
  - f. Observation of consecutive heart rates <50
    - Two most recent consecutive Pulses documented in V Measurements <50
  - g. Allergy, intolerance
    - Entry of Adverse Reactions/Allergy to medication or medication ingredient for beta-blocker
  - h. Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons)
    - Personal Health Refusal documented with reason, examples: Refused, Drug declined by patient, not indicated

## 4.15 CMS145v13 Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF) less than or equal to 40%

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS145v13.html>

### 4.15.1 Detail and Data Entry

1. Initial population: All patients aged 18 years and older with two qualifying encounters during the measurement period and a diagnosis of coronary artery disease (CAD)

- a. Qualifying encounter examples are office visit, Ambulatory service category, home health care
- b. IPL SNOMED or ICD10 in V POV diagnosis of CAD

2. Denominator: Equals initial population who also have prior (within the past 3 years) MI or a current or prior LVEF <=40%
  - a. IPL SNOMED or ICD10 in V POV diagnosis of both MI or moderate or severe left ventricular failure
3. Denominator Exclusions: Patients with a history of heart transplant or with a Left Ventricular Assist Device (LVAD) prior to the end of the outpatient encounter with Moderate or Severe LVSD
  - a. Has Heart Transplant
    - CPT code in Visit Services
  - b. Has Heart Transplant Related Diagnosis
    - IPL SNOMED or ICD10 in V POV diagnosis
  - c. Has Left Ventricular Assist Device Implanted
    - CPT code in Visit Services
  - d. Has Left Ventricular Assist Device Related Diagnosis
    - IPL SNOMED or ICD10 in V POV diagnosis
4. Numerator: Patients who were prescribed or already taking beta-blocker therapy during the measurement period
  - a. Active beta-blocker therapy medication in Outpatient or Outside
5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: Documentation of medical reason(s) for not prescribing beta-blocker therapy:
  - a. Arrhythmia
    - IPL SNOMED or ICD10 in V POV diagnosis
  - b. Asthma
    - IPL SNOMED or ICD10 in V POV diagnosis
  - c. Bradycardia
    - IPL SNOMED or ICD10 in V POV diagnosis
  - d. Hypotension
    - IPL SNOMED or ICD10 in V POV diagnosis
  - e. Patients with atrioventricular block without cardiac pacer

- IPL SNOMED or ICD10 in V POV diagnosis and NO history of CPT/HCPC code for heart pacer
  - f. Observation of consecutive heart rates <50
    - Two most recent consecutive Pulses documented in V Measurements <50
  - g. Allergy, intolerance
    - Entry of Adverse Reactions/Allergy to medication or medication ingredient for beta-blocker
  - h. Documentation of patient reason(s) for not prescribing beta-blocker therapy (e.g., patient declined, other patient reasons)
    - Personal Health Refusal documented with reason, examples: Refused, Drug declined by patient, not indicated

## 4.16 CMS154v13 Appropriate Treatment for Upper Respiratory Infection (URI)

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS154v13.html>

### 4.16.1 Detail and Data Entry

1. Initial population: Outpatient visits, telephone visits, virtual encounter (i.e. e-visit or virtual check-in), or emergency department visits with a diagnosis of URI during the measurement period among patients 3 months of age and older
  - a. IPL SNOMED or ICD10 in V POV diagnosis of URI
2. Denominator: Equals initial population
3. Denominator Exclusions:
  - a. Exclude URI episodes when the patient had a comorbid condition during the 12 months prior to or on the episode date.
    - IPL SNOMED or ICD10 in the V POV diagnosis of a comorbid condition (Examples: Pneumonia, TB)
  - b. Exclude URI episodes when the patient had an active prescription of antibiotics in the 30 days prior to the episode date but is still active the same day of the encounter
    - Active medication order in Outpatient or Outside medications
  - c. Exclude URI episodes when the patient had competing diagnosis on or three days after the episode date
    - IPL SNOMED or ICD10 in the V POV diagnosis of a competing diagnosis (Examples: Otitis media, cholera, botulism, infection of skin, tenia, pneumonia)

- d. Exclude URI episodes when the patient had hospice care for any part of the measurement period
  - Hospice care service HCPC code in the Visit Services
  - Hospice Care TREG entry in the IPL Palliative care category
  - Inpatient hospitalization discharged to Hospice in ADT
4. Numerator: URI episodes without a prescription for antibiotic medication on or 3 days after the outpatient visit, telephone visit, virtual encounter, or emergency department visit for an upper respiratory infection
  - a. IPL SNOMED or ICD10 in V POV of URI and NO active antibiotic medication in Outpatient or Outside medications issued on or 3 days after the encounter
5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

## 4.17 CMS155v13 Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS155v13.html>

### 4.17.1 Detail and Data Entry

1. Initial population: Patients 3-17 years of age by the end of the measurement period, with at least one outpatient visit with a primary care physician (PCP) or an obstetrician/gynecologist (OB/GYN) during the measurement period
  - a. Qualifying encounter examples are office visit, home health care, preventative care, wellness
2. Denominator: Equals initial population
3. Denominator Exclusions:
  - a. Exclude patients who are in hospice care for any part of the measurement period
  - b. Hospice care service HCPC code in the Visit Services
  - c. Hospice Care TREG entry in the IPL Palliative care category
  - d. Inpatient hospitalization discharged to Hospice in ADT
  - e. Patients who have a diagnosis of pregnancy during the measurement period.
    - IPL SNOMED or ICD10 in V POV of pregnancy

## 4. Numerator:

- a. Numerator 1: Patients who had a height, weight and body mass index (BMI) percentile recorded during the measurement period
  - Measurement of height and weight (BMI is calculated)
- b. Numerator 2: Patients who had counseling for nutrition during the measurement period
  - Any patient education topic for Nutrition documented “XX-NUT”
  - Medical nutrition therapy CPT service codes in Visit Services
  - Patient referral with referral SNOMED “Referral to nutrition professional” (RCIS referral)
- c. Numerator 3: Patients who had counseling for physical activity during the measurement period
  - Any patient education topic for Exercise documented “XX-EX”
  - Patient referral with referral SNOMED “Referral to physical activity program” (RCIS referral)
  - Prescribed activity/exercise education TREG entry in the IPL in Weight Management category

5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

**4.18 CMS156v13 Use of High-Risk Medications in Older Adults**

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS156v13.html>

**4.18.1 Detail and Data Entry**

1. Initial population: Patients 65 years and older at the end of the measurement period who had a visit during the measurement period
  - a. Qualifying encounter examples are office visit, home health care, preventative care, wellness
2. Denominator: Equals initial population
3. Denominator Exclusions:
  - a. Exclude patients who are in hospice care for any part of the measurement period
    - Hospice care service HCPC code in the Visit Services
    - Hospice Care TREG entry in the IPL Palliative care category

- Inpatient hospitalization discharged to Hospice in ADT
- b. Exclude patients receiving palliative care for any part of the measurement period.
  - Palliative care service HCPC code in the Visit Services
  - Palliative Care TREG entry in the IPL Palliative care category

4. Numerator:

- a. Rate 1: Patients with at least two orders of high-risk medications from the same drug class on different days
  - At least two orders of high-risk medications from the same drug class
  - At least two orders of high-risk medications from the same drug class with summed days' supply greater than 90 days
  - At least two orders of high-risk medications from the same drug class each exceeding average daily dose criteria
    - Medication(s) ordered/document in Outpatient and/or Outside medications
- b. Rate 2: Patients with at least two orders of high-risk medications from the same drug class (i.e., antipsychotics and benzodiazepines) on different days
  - Medication(s) ordered/document in Outpatient and/or Outside medications
- c. Total rate (the sum of the two previous numerators, deduplicated)

5. Numerator Exclusions:

- a. Rate 2: For patients with two or more antipsychotic prescriptions ordered, exclude patients who have a diagnosis of schizophrenia, schizoaffective disorder, or bipolar disorder on or between January 1 of the year prior to the measurement period and the IPSD for antipsychotics
  - Medication(s) ordered/document in Outpatient and/or Outside medications
  - IPL SNOMED or ICD10 in V POV for conditions listed above
- b. For patients with two or more benzodiazepine prescriptions ordered, exclude patients who have a diagnosis of seizure disorders, rapid eye movement sleep behavior disorder, benzodiazepine withdrawal, ethanol withdrawal, or severe generalized anxiety disorder on or between January 1 of the year prior to the measurement period and the IPSD for benzodiazepines
  - Medication(s) ordered/document in Outpatient and/or Outside medications
  - IPL SNOMED or ICD10 in V POV for conditions listed above

6. Denominator Exceptions: None

## 4.19 CMS159v13 Depression Remission at Twelve Months

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS159v13.html>

### 4.19.1 Detail and Data Entry

1. Initial population: Adolescent patients 12 to 17 years of age and adult patients 18 years of age and older with a diagnosis of major depression or dysthymia and an initial PHQ-9 or PHQ-9M score greater than nine during the index event. Patients may be assessed using PHQ-9 or PHQ-9M on the same date or up to 7 days prior to the encounter (index event)
  - a. IPL SNOMED or ICD10 in V POV diagnosis of major depression or dysthymia
  - b. PHQ-9 or PHQ-9M (Modified for teens) in Measurements with a value greater than 9

**Note:** Index event occurs between 14 months before the measurement period and 2 months before the measurement period (to allow time for 12 months follow-up).

2. Denominator: Equals initial population
3. Denominator Exclusions:
  - a. Patients who died any time prior to the end of the measure assessment period
    - Patient registration “Date of Death” entered or ADT discharged as “Expired”
  - b. Patients who received hospice or palliative care services between the start of the denominator period and the end of the measurement assessment period
    - Hospice care service HCPC code in the Visit Services
    - Hospice Care TREG entry in the IPL in the Palliative Care category
    - Inpatient hospitalization discharged to Hospice in ADT
    - TREG entry in the IPL in the palliative care category for Hospice or Palliative Care
  - c. Patients with a diagnosis of bipolar disorder any time prior to the end of the measure assessment period
    - IPL SNOMED or ICD10 in V POV diagnosis of bipolar disorder
  - d. Patients with a diagnosis of personality disorder emotionally labile any time prior to the end of the measure assessment period
    - IPL SNOMED or ICD10 in V POV diagnosis of personality disorder

- e. Patients with a diagnosis of schizophrenia or psychotic disorder any time prior to the end of the measure assessment period
  - IPL SNOMED or ICD10 in V POV diagnosis of schizophrenia or psychotic disorder
- f. Patients with a diagnosis of pervasive developmental disorder any time prior to the end of the measure assessment period
  - IPL SNOMED or ICD10 in V POV diagnosis of pervasive developmental disorder

4. Numerator: Adolescent patients 12 to 17 years of age and adult patients 18 years of age and older who achieved remission at twelve months as demonstrated by the most recent twelve-month (+/- 60 days) PHQ-9 or PHQ-9M score of less than five
  - a. PHQ-9 or PHQ-9M (Modified for teens) in Measurements with a value less than 5
5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: Denominator Exception: Patients who die on or before the measurement period
  - a. Patient registration “Date of Death” entered or ADT discharged as “Expired”

## 4.20 CMS165v13 Controlling High Blood Pressure

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS165v13.html>

### 4.20.1 Detail and Data Entry

1. Initial population: Patients 18-85 years of age by the end of the measurement period who had a visit and diagnosis of essential hypertension starting before and continuing into, or starting during the first six months of the measurement period
  - a. Qualifying encounter examples are office visit, telephone, preventative, wellness
  - b. IPL SNOMED or ICD10 in V POV of essential hypertension
2. Denominator: Equals initial population
3. Denominator Exclusions:
  - a. Exclude patients who are in hospice care for any part of the measurement period
    - Hospice care service HCPC code in the Visit Services
    - Hospice Care TREG entry in the IPL in the Palliative Care category
    - Inpatient hospitalization discharged to Hospice in ADT

- b. TREG entry in the IPL in the palliative care category for Hospice CarePatients with evidence of end stage renal disease (ESRD), dialysis or renal transplant before or during the measurement period
  - IPL SNOMED or ICD10 in V POV of ESRD
  - Dialysis service CPT/HCPC in Visit Services
  - ESRD services CPT/HCPC in Visit Services
  - ESRD transplant CPT/HCPC/ICD10PCS codes in visit services
  - IPL SNOMED (History of renal transplant) or ICD10 (Z94.0-Kidney transplant status) in V POV of kidney transplant
- c. Also exclude patients with a diagnosis of pregnancy during the measurement period
  - IPL SNOMED or ICD10 in V POV of pregnancy
- d. Exclude patients 66-80 by the end of the measurement period with an indication of frailty for any part of the measurement period who also meet any of the following advanced illness criteria:
  - Advanced illness diagnosis during the measurement period or the year prior
    - Frailty device issued in Visit Service with HCPC code and IPL SNOMED or ICD 10 in V POV diagnosis of advanced illness
  - OR taking dementia medications during the measurement period or the year prior
    - Medication order prescribed in Outpatient medications or documented in Outside medications
- e. Exclude patients 81 and older by the end of the measurement period with an indication of frailty for any part of the measurement period
  - Frailty device issued in Visit Service with HCPC code
  - IPL SNOMED or ICD 10 in V POV diagnosis of frailty or frailty symptom
- f. Exclude patients 66 and older by the end of the measurement period who are living long term in a nursing home any time on or before the end of the measurement period.
  - Nursing home service CPT codes or SNOMED code added in the IPL
- g. Exclude patients receiving palliative care for any part of the measurement period
  - Palliative Care TREG entry in the IPL in the palliative care category

4. Numerator: Patients whose most recent blood pressure is adequately controlled (systolic blood pressure < 140 mmHg and diastolic blood pressure < 90 mmHg) during the measurement period
  - a. Blood Pressure (BP) measurement in Vitals
5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

## 4.21 CMS177v13 Child and Adolescent Major Depressive Disorder: Suicide Risk Assessment

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS177v13.html>

### 4.21.1 Detail and Data Entry

1. Initial population: All patient visits for those patients aged 6 through 17 years with a diagnosis of major depressive disorder
  - a. Qualifying encounter examples are office visit, group therapy, Psych evaluation or therapy
  - b. IPL SNOMED or ICD10 in V POV of MDD
2. Denominator: Equals initial population
3. Denominator Exclusions: None
4. Numerator: Patient visits with an assessment for suicide risk
  - a. Suicide Risk Assessment (43) Exam document during the encounter
5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

## 4.22 CMS347v8 Statin Therapy for the Prevention and Treatment of Cardiovascular Disease

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS347v8.html>

### 4.22.1 Detail and Data Entry

1. Initial population:
  - a. Population 1: All patients who have an active diagnosis of clinical ASCVD or ever had an ASCVD procedure
    - Qualifying encounter examples are office visit, preventative, wellness

- IPL SNOMED or ICD10 in V POV of ASCVD (Examples: Ischemic heart disease, myocardial infarction, stable and unstable angina)
- CPT/HCPC/ICD10PCS codes for ASCD procedures (Examples: PCI, Carotid Intervention)

b. Population 2: Patients aged 20 to 75 years at the beginning of the measurement period who have ever had a laboratory result of LDL-C  $\geq 190$  mg/dL or were previously diagnosed with or currently have an active diagnosis of familial hypercholesterolemia

- Qualifying encounter examples are office visit, preventative, wellness
- IPL SNOMED or ICD10 in V POV of familial hypercholesterolemia
- Laboratory test performed and resulted in V lab based on LDL-C LOINC

c. Population 3: Patients aged 40 to 75 years at the beginning of the measurement period with Type 1 or Type 2 diabetes.

- Qualifying encounter examples are office visit, preventative, wellness
- IPL SNOMED or ICD10 in V POV of diabetes Type 1 or 2

d. Population 4: Patients aged 40 to 75 at the beginning of the measurement period with a 10-year ASCVD risk score (i.e., 2013 ACC/AHA ASCVD Risk Estimator or the ACC Risk Estimator Plus) of  $\geq 20$  percent during the measurement period.

2. Denominator: Equals initial population

3. Denominator Exclusions:

- a. Patients who are breastfeeding at any time during the measurement period.
  - IPL SNOMED or ICD10 in V POV diagnosis of breastfeeding
- b. Patients who have a diagnosis of rhabdomyolysis at any time during the measurement period
  - IPL SNOMED or ICD10 in V POV of rhabdomyolysis

4. Numerator: Patients who are actively using or who receive an order (prescription) for statin therapy at any time during the measurement period

- a. Medication order prescribed in Outpatient medications or documented in Outside medications

5. Numerator Exclusions: Not Applicable

6. Denominator Exceptions:

- a. Patients with statin-associated muscle symptoms or an allergy to statin medication.

- Adverse Reaction documented in the EHR for statin drug (Reason examples: Allergy to drug, contraindicated, drug resistance)
- b. Patients who are receiving palliative or hospice care
  - Hospice care service HCPC code in the Visit Services
  - Hospice Care TREG entry in the IPL in the Palliative Care category
  - Inpatient hospitalization discharged to Hospice in ADT
  - TREG entry in the IPL in the palliative care category for hospice Care or palliative care
- c. Patients with active liver disease or hepatic disease or insufficiency
  - IPL SNOMED or ICD10 in V POV of liver disease or hepatitis A or B
- d. Patients with end-stage renal disease (ESRD)
  - IPL SNOMED or ICD10 in V POV of ESRD
- e. Patients with documentation of a medical reason for not being prescribed statin therapy
  - Refusal for statin medication in Personal Health (Example for reason: Refused, Drug declined by patient, not indicate)

## 4.23 CMS349v7 HIV Screening

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS349v7.html>

### 4.23.1 Details and Data Entry

1. Initial population: Patients 15 to 65 years of age at the start of the measurement period AND who had at least one outpatient visit during the day of the measurement period
  - a. Qualifying encounter examples: Ambulatory, Office Visit, Preventative Care, Mental health, etc. Defined by visit service category or CPT/HCPC code in EHR visit services
2. Denominator: Equals initial population
3. Denominator Exclusions: Patients diagnosed with HIV prior to the day of the start of the measurement period
  - a. IPL SNOMED or ICD 10 in POV diagnosis of HIV
4. Numerator: Patients with documentation of an HIV test performed on or after their 15<sup>th</sup> birthday and before their 66th birthday
  - a. Laboratory test with valid result in V lab with appropriate LOINC assigned

5. Denominator Exception: Patients who die on or before the day of the measurement period
  - a. Patient registration “Date of Death” entered or ADT discharged as “Expired”
6. Numerator Exclusions: NOT APPLICABLE

## **5.0 Eligible Clinician and Eligible Hospital supported Measures NOT reportable to CMS**

### **5.1 EC Measures NOT Reportable**

#### **5.1.1 CMS160v7 Depression Utilization of the PHQ-9 Tool (retired measure for Quality Assurance)**

No link is available to the ECQI website; the measure is not supported.

##### **5.1.1.1 Detail and Data Entry**

1. Initial population: Adolescent patients 12 to 17 years of age and adult patients 18 years of age and older with an office visit and the diagnosis of major depression or dysthymia during the four-month period
  - a. IPL SNOMED or ICD10 in V POV diagnosis of major depression or dysthymia
2. Denominator: Equals initial population
3. Denominator Exclusions:
  - a. Patients who died.
    - “Date of Death” in patient registration OR ADT discharge as “expired”
  - b. Patients who received hospice or palliative care services
    - Hospice care service HCPC code in the Visit Services
    - Hospice Care TREG entry in the IPL in the Palliative Care category
    - Inpatient hospitalization discharged to Hospice in ADT
    - TREG entry in the IPL in the palliative care category for Hospice or Palliative Care
  - c. Patients who were permanent nursing home residents
    - Nursing home CPT services in Visit Services
  - d. Patients with a diagnosis of bipolar disorder
    - IPL SNOMED or ICD10 in V POV diagnosis
  - e. Patients with a diagnosis of personality disorder
    - IPL SNOMED or ICD10 in V POV diagnosis
  - f. Patients with a diagnosis of schizophrenia or psychotic disorder

- IPL SNOMED or ICD10 in V POV diagnosis
- g. Patients with a diagnosis of pervasive developmental disorder
  - IPL SNOMED or ICD10 in V POV diagnosis
- 4. Numerator: Adolescent patients 12 to 17 years of age and adult patients 18 years of age and older who have a PHQ-9 or PHQ-9M tool administered at least once during the four-month period
  - a. PHQ-9 or PHQ-9T (Modified for teens) in measurements
- 5. Numerator Exclusions: Not Applicable
- 6. Denominator Exceptions: None

## 5.2 EH /CAH Measures NOT Reportable

### 5.2.1 CMS9v11 Exclusive Breast Milk Feeding (Retired measure for Quality Assurance)

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS9v11.html>

#### 5.2.1.1 Details and Data Entry

1. Initial population: Inpatient hospitalizations for single newborns who were born in the hospital where Inpatient Hospitalization ends during the measurement period and with either of the following conditions:
  - a. Newborn admitted to hospital
    - ADT Admission/discharge with ADMISSION TYPE-UB-04: NEWBORN
  - b. Diagnosis single live birth born in hospital
    - Integrated Problem List or ICD diagnosis in V POV of Single Live Newborn born in hospital with one of the following:
  - c. Gestational Age => than 37 weeks w/o Birth Weight
    - Vitals component EGA measurement
  - d. Birth Weight >= 3000 gm w/o EGA
    - Vitals component weight must be entered on the same day as the newborn's date of birth
    - Birth measurement via personal health component
2. Denominator:
  - Initial population
3. Denominator Exclusions:

- a. Admitted to NICU or ICU
  - ADT Admission/Discharge with ward set as ICU or PEDS NICU
- b. Diagnosis of Galactosemia
  - Integrated Problem List or ICD diagnosis in V POV
- c. Prolonged length of stay (>120 days)
  - ADT Admission/Discharge LOS
- d. Expired during hospitalization or transferred to an acute care facility
  - ADT Discharge UB-04 type Expired = 20
- e. Total Parenteral Nutrition
  - ICD Procedure code 3E0G36Z in the Visit Services component in the EHR or PCC by coder

4. Numerator:

- a. Exclusive Breast Feeding
  - Infant Feeding Component in EHR

The dialog box is titled 'Infant Feeding Choice'. On the left, there is a list of feeding options with radio buttons: 'Exclusively Breastfeed' (selected), '1/2 Breast 1/2 Formula', 'Formula only', 'Mostly Breastfeed', 'Mostly Breastfeed, some Formula', 'Mostly Formula, some Breastfeed', and 'Mostly Formula'. On the right, there is a 'Secondary Fluids' section with checkboxes for: Milk, Fruit juice, Carbonated drink, Sports drink, Glucose, and Water. There are 'Save' and 'Cancel' buttons at the top right.

Figure 5-1: Infant Feeding Choice

5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

## 5.2.2 CMS826v2 Hospital Harm-Pressure Injury (Not Certified)

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS826v2-v2.html>

### 5.2.2.1 Details and Data Entry

1. Initial Population: Inpatient hospitalizations that end during the measurement period for patients aged 18 and older
  - a. ADT admission/discharge
2. Denominator: Equals Initial Population
3. Denominator Exclusions:

- a. Inpatient hospitalizations for patients with a DTPI or stage 2, 3, 4 or unstageable pressure injury diagnosis present on admission, i.e., the diagnosis of pressure injury has a Present on Admission indicator = Y yes (Diagnosis was present at time of inpatient admission) or W (clinically undetermined).
  - ICD10 diagnosis in V POV from Inpatient coding with Present on Admission? Y or W
- b. Inpatient hospitalizations for patients with a DTPI found on exam 72 hours or less after the start of the encounter.
  - Exam for Pressure Injury Skin Exam (51) with a result of Abnormal, Positive, Low, Moderate, or High
- c. Inpatient hospitalizations for patients with a stage 2, 3, 4, or unstageable pressure injury found on exam 24 hours or less after the start of the encounter.
  - Exam for Pressure Injury Skin Exam (51) with a result of Abnormal, Low, Moderate, or High
- d. Inpatient hospitalizations for patients with diagnosis of a COVID-19 infection during the encounter.
  - ICD10 diagnosis in V POV from Inpatient coding

4. Numerator:
  - a. Inpatient hospitalizations for patients with a new deep tissue pressure injury (DTPI) or stage 2, 3, 4, or unstageable pressure injury, as evidenced by any of the following:
    - A diagnosis of DTPI with the DTPI not present on admission, i.e., the diagnosis of DTPI has a Present on Admission indicator = N (Diagnosis was not present at time of inpatient admission) or U (documentation insufficient to determine if the condition was present at the time of inpatient admission).
      - ICD10 diagnosis in V POV Inpatient coding with Present on Admission? N (No) or U (Unknown)
    - A diagnosis of stage 2, 3, 4 or unstageable pressure injury with the pressure injury diagnosis not present on admission, i.e., the diagnosis of pressure injury has a Present on Admission indicator = N (Diagnosis was not present at time of inpatient admission) or U (documentation insufficient to determine if the condition was present at the time of inpatient admission).
      - ICD10 diagnosis in V POV Inpatient coding with Present on Admission? N (No) or U (Unknown)
    - A DTPI found on exam greater than 72 hours after the start of the encounter.
      - Pressure Injury Skin Exam (51) with a result of “POSITVE”

- A stage 2, 3, 4 or unstageable pressure injury found on exam greater than 24 hours after the start of the encounter.
  - Pressure Injury Skin Exam (51) with a result of either: “LOW”, “MODERATE”, or “HIGH”

5. Numerator Exclusions: Not Applicable
6. Denominator Exceptions: None

### 5.2.3 CMS832v2 Hospital Harm-Acute Kidney Injury (Not Certified)

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS832v2-v2.html>

#### 5.2.3.1 Details and Data Entry

1. Initial Population: Inpatient hospitalizations that end during the measurement period for patients 18 years of age or older without an obstetrical or pregnancy related condition, with a length of stay of 48 hours or longer, and who had at least one serum creatinine value after 48 hours from the start of the hospitalization
  - a. ADT Admission/Discharge w/o any ICD10 or SNOMED diagnosis in IPL or V POV of obstetrical or pregnancy condition
  - b. LOINC code for serum creatinine in V Lab 48+ hours after admission and before discharge
2. Denominator: Equals Initial Population
3. Denominator Exclusions:
  - a. Inpatient hospitalizations for patients with an increase in serum creatinine value of at least 0.3 mg/dL between the index serum creatinine and a subsequent serum creatinine taken within 48 hours of the encounter start.
    - ADT Admission/Discharge w/o any ICD10 or SNOMED diagnosis in IPL or V POV of obstetrical or pregnancy condition
    - LOINC code for serum creatinine in V Lab within 48 hours of admission
  - b. Inpatient hospitalizations for patients with the index eGFR value of <60 mL/min within 48 hours of the encounter start.
    - ADT Admission/Discharge w/o any ICD10 or SNOMED diagnosis in IPL or V POV of obstetrical or pregnancy condition
    - LOINC code for eGFR in V Lab within 48 hours of admission
  - c. Inpatient hospitalizations for patients who have less than two serum creatinine results within the first 48 hours of the encounter start.
    - ADT Admission/Discharge w/o any ICD10 or SNOMED diagnosis in IPL or V POV of obstetrical or pregnancy condition

- LOINC code serum creatinine in V Lab within 48 hours of admission
- d. Inpatient hospitalizations for patients who have kidney dialysis (CRRT, hemodialysis or peritoneal dialysis) initiated 48 hours or less after the encounter start, and who do not have evidence of a 2 times increase in serum creatinine.
  - ADT Admission/Discharge w/o any ICD10 or SNOMED diagnosis in IPL or V POV of obstetrical or pregnancy condition
  - ICD10PCS in Visit services or in PCC coding
- e. Inpatient hospitalizations for patients with at least one specified diagnosis present on admission during the encounter that puts them at extremely high risk for AKI:
  - Hemolytic Uremic Syndrome (HUS)
  - Large Body Surface Area (BSA) Burns
  - Traumatic Avulsion of Kidney
  - Rapidly Progressive Nephritic Syndrome
  - Thrombotic Thrombocytopenic Purpura
  - Out of Hospital Cardiac Arrest (OHCA)
  - ADT Admission/Discharge w/o any ICD10 or SNOMED diagnosis in IPL or V POV of obstetrical or pregnancy condition
  - ICD10 in V POV with PCC coding or SNOMED in IPL
- f. Inpatient hospitalizations for patients who have at least one specified procedure that starts during the encounter that puts them at extremely high risk for AKI:
  - Extracorporeal membrane oxygenation (ECMO)
  - Intra-Aortic Balloon Pump
  - Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA)
  - Nephrectomy
  - ADT Admission/Discharge w/o any ICD10 or SNOMED diagnosis in IPL or V POV of obstetrical or pregnancy condition
  - ICD10PCS in Visit Services or in PCC coding for Operation Procedures

4. Numerator:

- a. Inpatient hospitalizations for patients who develop AKI (stage 2 or greater) during the encounter, as evidenced by:
  - A subsequent increase in serum creatinine value at least 2 times higher than the lowest serum creatinine value, and the increased value is greater than the highest sex-specific normal value for serum creatinine.

- ADT Admission/Discharge w/o any ICD10 or SNOMED diagnosis in IPL or V POV of obstetrical or pregnancy condition
- LOINC for serum creatinine in V Lab

Or

- Kidney dialysis (CRRT, hemodialysis or peritoneal dialysis) initiated more than 48 hours after the start of the encounter. Evidence of a 2 times increase in serum creatinine is not required.
- ADT Admission/Discharge w/o any ICD10 or SNOMED diagnosis in IPL or V POV of obstetrical or pregnancy condition
- ICD10PCS in Visit Services or in PCC coding for Operation Procedures
- Only one harm is counted per encounter.

5. Numerator Exceptions: NOT APPLICABLE

6. Denominator: None

## 5.2.4 CMS1218v2 Hospital Harm—Postoperative Respiratory Failure (Not Certified)

<https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS1218-v2.3.000-QDM.html>

### 5.2.4.1 Details and Data Entry

1. Initial Population: Elective inpatient hospitalizations with no preceding emergency department visit that end during the measurement period for patients aged 18 and older without an obstetrical condition and at least one surgical procedure was performed within the first 3 days of the encounter
  - a. ADT Admission/Discharge w/o any ICD10 or SNOMED diagnosis in IPL or V POV of obstetrical or pregnancy condition
    - And
  - b. CPT or ICD10PCS procedure documented in V CPT or V Procedures via EHR Visit Services or PCC coding
2. Denominator: Equals Initial Population
3. Denominator Exclusions: Inpatient hospitalizations for patients:
  - a. With a diagnosis for a degenerative neurological disorder
    - ICD10 in V POV or SNOMED in IPL
  - b. With any selected head, neck, and thoracic surgery involving significant risk of airway compromise or requiring airway protection

- ICD10PCS in V Procedures in PCC Coding or Visit Services for Operation Procedures
  - c. Who have mechanical ventilation that starts more than one hour prior to the start of the first operating room (OR) procedure
    - ICD10PCS in V PROCEDURES in PCC Coding or Visit Services for Operation Procedures
  - d. With a diagnosis for a neuromuscular disorder
    - ICD10 in V POV or SNOMED in IPL
  - e. With arterial partial pressure of carbon dioxide (PaCO2)>50 mmHg combined with an arterial pH<7.30 within 48 hours or less prior to the start of the first OR procedure
    - LOINC code found in V Lab with result
  - f. With arterial partial pressure of oxygen (PaO2)<50 mmHg within 48 hours or less prior to the start of the first OR procedure
    - LOINC code found in V Lab with result
  - g. With a principal diagnosis for acute respiratory failure
    - ICD10 in V POV set to “PRIMARY” diagnosis
  - h. With a diagnosis for acute respiratory failure present on admission
    - ICD10 in V POV from PCC coding with Present on Admission? “Y” for Yes
  - i. With any diagnosis present on admission for the existence of a tracheostomy
    - ICD10 in V POV from PCC coding with Present on Admission? “Y” for Yes
  - j. Where a tracheostomy is performed before or on the same day as the first OR procedure
    - ICD10PCS in V PROCEDURES
- 4. Numerator: Elective inpatient hospitalizations for patients with postoperative respiratory failure as evidenced by any of the following:
  - ADT admission/discharge as “ELECTIVE”
  - a. Criterion A: Mechanical ventilation (MV) initiated within 30 days after first OR procedure, as evidenced by:
    - A.1. Intubation that occurs outside of a procedural area and within 30 days after the end of the first OR procedure of the encounter.
      - ICD10PCS in V PROCEDURES

Or

- A.2. MV that occurs outside of a procedural area within 30 days after the end of the first OR procedure of the encounter and is preceded by a period of non-invasive oxygen therapy between the end of the OR procedure and the MV occurrence, and without a subsequent OR procedure between the non-invasive oxygen therapy and the MV occurrence.
  - ICD10PCS in V PROCEDURES followed by Measurement of Oxygen (O2) in V Measurements with a qualifier:
    - AEROSOL/HUMIDIFIED MASK
    - FACE TENT
    - NASAL CANNULA
    - NON RE-BREATHER
    - PARTIAL RE-BREATHER
    - T-PIECE
    - TRACHEOSTOMY COLLAR
    - VENTILATOR
    - VENTURI MASK

Or

- b. Criterion B: MV with a duration of more than 48 hours after the first OR procedure, as evidenced by:
  - B.1. Extubation that occurs outside of a procedural area more than 48 hours after the end of an OR procedure and within 30 days after the end of the first OR procedure, and is not preceded by a period of non-invasive oxygen therapy or a subsequent OR procedure between the end of the OR procedure and the extubation occurrence.
    - ICD10PCS in V PROCEDURES extubation 0BP14FZ
- Or
- B.2 Mechanical ventilation that occurs between 48 and 72 hours after the end of an OR procedure and within 30 days after the end of the first OR procedure, and is not preceded by a non-invasive oxygen therapy or a subsequent OR procedure between the end of the OR procedure and the MV occurrence.
  - ICD10PCS in V PROCEDURES

5. Numerator Exceptions: None
6. Denominator Exceptions: None

## Acronym List

Acronym	Term Meaning
AACE/ACE	American Association of Clinical Endocrinologists/American College of Endocrinology
AAP	American Academy of Pediatrics
ACC	American College of Cardiology
ACCF	American College of Cardiology Foundation
ACE	Angiotensin-Converting Enzyme
ACIP	Advisory Committee on Immunization Practices
ACOG	American College of Obstetricians and Gynecologists
ADA	American Diabetes Association
ADE	Adverse Drug Event
AHA	American Heart Association
AHRQ	Agency for Healthcare Research and Quality
AIDS	Acquired Immunodeficiency Syndrome
AMA	Against Medical Advice
AMI	Acute Myocardial Infarction
AOD	Alcohol or Other Drug abuse
ARB	Angiotensin Receptor Blocker
ART	Antiretroviral therapy
ASCVD	Atherosclerotic Cardiovascular Disease
BDI	Beck Depression Inventory
BMI	Body Mass Index
CAH	Critical Access Hospital
CDC	Centers for Disease Control and Prevention
CEHR	Certified Electronic Health Record
CES-D	Center for Epidemiologic Studies
CMS	Centers for Medicare and Medicaid Services
CPT	Current Procedural Terminology
CVD	Cardiovascular Disease
CY	Calendar Year
DBT	Digital Breast Tomosynthesis
DTaP	Diphtheria, Tetanus and Acellular Pertussis
DVT	Deep Vein Thrombosis
ECG	Electrocardiogram
eCQI	Electronic Clinical Quality Improvement

Acronym	Term Meaning
eCQM	Electronic Clinical Quality Measures
EC	Eligible Clinician
ED	Emergency Department
EGA	Estimated Gestational Age
EH	Eligible Hospital
EHR	Electronic Health Record
EP	Eligible Professional
ER	Emergency Room
ESRD	End Stage Renal Disease
FDA	Food and Drug Administration
FOBT	Fecal Occult Blood Test
GCS	Graduated Compression Stockings
GDMT	Guideline-Directed Medical Therapy
GLAD-PC	Guidelines for Adolescent Depression in Primary Care
HbA1c	Hemoglobin A1c
HBIG	Hepatitis B Immune Globulin
HF	Heart Failure
HFrEF	Heart Failure with reduced Ejection Fraction
HHS	Health and Human Services
HIV	Human Immunodeficiency Virus
HPV	Human Papillomavirus
ICD	International Classification of Diseases
ICSI	Institute for Clinical Systems Improvement
ICU	Intensive Care Unit
IHS	Indian Health Service
IIV	Inactivated Influenza Vaccine
IPL	Integrated Problem List
LDL-C	Low-Density Lipoprotein Cholesterol
LOINC	Logical Observation Identifiers Names and Codes
LVEF	Left Ventricular Ejection Fraction
MDD	Major Depressive Disorder
MDE	Major Depressive Episode
MMR	Measles, Mumps, and Rubella
MV	Mechanical Ventilation
NHANES	National Health and Nutrition Examination Survey
NHLBI	National Heart Lung and Blood Institute

Acronym	Term Meaning
NQF	National Quality Forum
NVAF	Nonvalvular Atrial Fibrillation
OB/GYN	Obstetrician/Gynecologist
ONC	Office of the National Coordinator for Health Information Technology
OR	Operating Room
PCI	Percutaneous Coronary Intervention
PCP	Primary Care Provider
PE	Pulmonary Embolism
POV	Purpose of Visit
QRDA	Quality Reporting Data Architecture
RPMS	Resource and Patient Management System
RV	Rotavirus
SCIP	Surgical Care Improvement Project
SNOMED-CT	Systematized Nomenclature of Medicine—Clinical Terms
SSRI	Selective Serotonin Reuptake Inhibitor
STEMI	ST-Segment Myocardial Infarction
TIA	Transient Ischemic Attack
TREG	Treatment\Regime Therapy
UACR	Urinary Albumin-to-Creatinine Ratio
USHIK	United States Health Information Knowledgebase
USPSTF	U.S. Preventive Services Task Force
VSAC	Value Set Authority Center
VTE	Venous Thromboembolism

## Contact Information

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