

Quality of Care Measure Optimal Care Measures – Heart Attack, Heart Failure, Pneumonia or Surgical Infection Prevention

Description: An optimal care measure is a composite measure that captures whether or not a patient received all the care he or she was eligible to receive based on the following measures:

Acute Myocardial Infarction

- Aspirin at arrival
- Aspirin at discharge
- ACEI or ARB for LVSD
- Beta blocker at arrival
- Beta blocker at discharge
- Smoking cessation counseling
- PCI < 90 minutes
- Throm Med < 30 minutes

Heart Failure

- LVF assessment
- ACEI or ARB for LVSD
- Smoking cessation counseling
- Discharge Instructions

Pneumonia

- Oxygenation assessment within 24 hours of hospital arrival
- Pneumococcal vaccination
- Initial antibiotic received within 4 hours of hospital arrival
- Smoking cessation counseling
- Initial antibiotics within 24 hours
- Blood Cultures ER
- Blood Culture < 24 hours
- Flu Vaccination

Surgical Infection Prevention (all surgeries included)

- Prophylactic antibiotic received within 1 hour prior to surgical incision
- Prophylactic antibiotic discontinued within 24 hours after surgery end time
- Prophylactic antibiotics recommended for surgical site procedure

Below is a description of how the measure is calculated. For clarification purposes, definitions of terms used in the calculation process are provided below, as well as a key to the category assignment.

Category Assignment: Each measure submitted to the QIO Clinical Warehouse is mapped against an analytic flow chart, which results in the following category assignments:

- A= Missing or Invalid Data Measure Population Data
- B= Not in Measure Population
- C= Missing or Invalid Numerator Data
- D= In Measure Population
- E= In Numerator Population

Definitions:

• A patient discharge is included in the optimal care measure **denominator** if they "qualify" for at least one measure that was submitted to the Clinical Warehouse for the AMI, HF, or PN or SIP topics. (Qualify means they were not excluded from the measure through analytic flow category assignments of A, B or C.)

Therefore, the case must have at least one measure with category assignment D or E to be in the ACM denominator.)

• A patient discharge is included in the optimal care measure **numerator** if they passed (category assignment "E") all qualified measures.

Calculation:

• For each clinical condition (AMI, HF, PN, SIP), add the total number of patient Index numerators and divide by the total number of patient optimal care measure denominators to calculate the optimal care measure percentage Patient passed all measures s/he was eligible for
$$\text{Index} = \frac{\sum \text{Patient eligible for at least one measure}}{\text{Patient eligible for at least one measure}}$$

Example:

**Patient A:
Heart Failure**

- Had a documented LVEF assessment = pass
- Physician documented why the patient was not a candidate for ACEI or ARB = pass
- Smoker was given smoking cessation counseling during hospital stay = pass
- All discharge instructions were given to the patient or caregivers = pass

PASS

Patient B:

AMI

- Received aspirin in ED = pass
- Received beta blocker within 24 hours = pass
- LVEF = 45% (not in denominator for ACEI/ARB measure) = not in denominator
- Discharge summary showed that a beta blocker was prescribed = pass
- Discharge summary did not document that patient was told to take aspirin at home = fail
- No current or recent history of smoking cigarettes = not in denominator
- Given PCI 45 minutes after arrival = pass
- Thrombolytic medications given 15 minutes of arrival = pass

FAIL

**Patient C:
Pneumonia**

- Received antibiotic at 3.2 hours after arrival = pass
- O₂ was assessed in ED = pass
- Patient was assessed and couldn't remember about pneumococcal vaccination status, there were no standing orders for immunizations, physician decided she would give the vaccination at follow-up visit = fail
- Blood culture performed prior to administration of first hospital dose of antibiotic in ER = pass
- Patient age 50 was vaccinated prior to discharge during November stay = pass
- Initial antibiotic for immunocompetent patients = not in denominator
- No current or recent history of smoking cigarettes = not in denominator
- Patient not transferred to ICU = not in denominator

FAIL