

## Quality of Care Measure (updated 6/15/09)

### Index – Heart Attack, Heart Failure, Pneumonia or Surgical Infection Prevention Index

**Description:** An index 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:

**NOTE:** Effective Q3 2008 the index calculation has changed to include all process of care measures for this condition. The additional measures are identified below.

#### Acute Myocardial Infarction

- Aspirin at arrival
- Aspirin at discharge
- ACEI or ARB for LVSD
- Beta blocker at discharge
- Smoking cessation counseling (added)
- PCI (added)
- Thrombolytics (added)

Beta blocker at arrival has been removed.

#### Heart Failure

- LVF assessment
- ACEI or ARB for LVSD
- Smoking cessation counseling (added)
- Discharge instructions (added)

#### Pneumonia

- Pneumococcal vaccination
- Initial antibiotic received within 6 hours of hospital arrival
- Smoking cessation counseling (added)
- Appropriate antibiotics received (added)
- Blood culture (added)
- Flu vaccine (added)

Oxygen assessment within 24 hours of arrival has been removed.

#### 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

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 Index **numerator** if they passed (category assignment "E") all qualified measures.
- A patient discharge is included in the Index **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.)

**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 Index denominators to calculate the Index percentage

$$\text{Index} = \frac{\Sigma \text{Patient passed all measures s/he was eligible for}}{\text{Patient eligible for at least one measure}}$$

**Examples:**

Patient A: Heart Failure	Had a documented LVEF assessment = pass  Physician documented why the patient was not a candidate for ACEI or ARB = 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	Fail

	Discharge summary did not document that patient was told to take aspirin at home = fail	
Patient C: pneumonia	<p>Received antibiotic at 3.2 hours after arrival = pass</p> <p>O<sub>2</sub> was assessed in ED = pass</p> <p>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</p>	Fail