



## Complete Summary

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### TITLE

Acute myocardial infarction: proportion of inpatient mortality.

### SOURCE(S)

Acute myocardial infarction core performance measures. In: Specifications manual for national implementation of hospital core measures. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 2002 July. p. AMI-1 to AMI-9-6.

## Brief Abstract

### DESCRIPTION

This measure assesses the proportion of acute myocardial infarction (AMI) patients who expired during hospital stay.

### RATIONALE

Mortality of patients with acute myocardial infarction (AMI) represents a significant outcome potentially related to quality of care. This rate-based indicator identifies an undesirable outcome of care. High rates over time may warrant investigation into the quality of care provided.

### PRIMARY CLINICAL COMPONENT

Acute myocardial infarction; inpatient mortality

### DENOMINATOR DESCRIPTION

Acute myocardial infarction (AMI) patients (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

### NUMERATOR DESCRIPTION

Inpatient mortality of acute myocardial infarction (AMI) patients

## Evidence Supporting the Measure

### PRIMARY MEASURE DOMAIN

Outcome

## SECONDARY MEASURE DOMAIN

Not applicable

## EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

## NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [1999 update: ACC/AHA guidelines for the management of patients with acute myocardial infarction. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines \(Committee on Management of Acute Myocardial Infarction\).](#)

## Evidence Supporting Need for the Measure

### NEED FOR THE MEASURE

Unspecified

## State of Use of the Measure

### STATE OF USE

Current routine use

### CURRENT USE

Accreditation

## Application of Measure in its Current Use

### CARE SETTING

Hospitals

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

### LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

## TARGET POPULATION AGE

Age greater than or equal to 18 years

## TARGET POPULATION GENDER

Either male or female

## STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

## Characteristics of the Primary Clinical Component

### INCIDENCE/PREVALENCE

Each year 900,000 people in the United States (U.S.) are diagnosed with acute myocardial infarction (AMI); of these, approximately 225,000 cases result in death and, it is estimated that an additional 125,000 patients die before obtaining medical care.

### EVIDENCE FOR INCIDENCE/PREVALENCE

American College of Cardiology, American Heart Association Task Force on Practice Guidelines, Committee on Management of Acute Myocardial Infarction. Ryan TJ, Antman EM, Brooks NH, Califf RM, Hillis LD, Hiratzka LF, Rapaport E, Riegel B, Russell RO, Smith EE III, Weaver WD. ACC/AHA guidelines for the management of patients with acute myocardial infarction: 1999 Update. Bethesda (MD): American College of Cardiology (ACC), American Heart Association (AHA); 1999. Various p.

### ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

### BURDEN OF ILLNESS

Cardiovascular disease, including acute myocardial infarction (AMI), is the leading cause of death in the United States (U.S.).

### EVIDENCE FOR BURDEN OF ILLNESS

French WJ. Trends in acute myocardial infarction management: use of the National Registry of Myocardial Infarction in quality improvement. Am J Cardiol 2000 Mar 9;85(5A):5B-9B; discussion 10B-12B. [PubMed](#)

### UTILIZATION

Cardiovascular disease, including acute myocardial infarction (AMI), is the primary disease category for hospital patient discharges.

## EVIDENCE FOR UTILIZATION

French WJ. Trends in acute myocardial infarction management: use of the National Registry of Myocardial Infarction in quality improvement. Am J Cardiol 2000 Mar 9;85(5A):5B-9B; discussion 10B-12B. [PubMed](#)

## COSTS

Unspecified

Institute of Medicine National Healthcare Quality Report Categories

## IOM CARE NEED

Getting Better

## IOM DOMAIN

Effectiveness

Data Collection for the Measure

## CASE FINDING

Users of care only

## DESCRIPTION OF CASE FINDING

All patients 18 years and older with acute myocardial infarction (AMI)

## DENOMINATOR (INDEX) EVENT

Clinical Condition  
Institutionalization

## DENOMINATOR INCLUSIONS/EXCLUSIONS

### Inclusions

Discharges with an International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Principal Diagnosis Code for acute myocardial infarction (AMI), as defined in Appendix A (ICD-9-CM Code Tables), Table 1.1 of the original measure documentation

### Exclusions

- Patients less than 18 years of age
- Patients transferred to another acute care hospital
- Patients received in transfer from another acute care hospital

## NUMERATOR INCLUSIONS/EXCLUSIONS

### Inclusions

Inpatient mortality of acute myocardial infarction (AMI) patients

### Exclusions

The measure population does not include deaths that occurred in the emergency department.

## DENOMINATOR TIME WINDOW

Time window is a single point in time

## NUMERATOR TIME WINDOW

Institutionalization

## DATA SOURCE

Administrative and medical records data

## LEVEL OF DETERMINATION OF QUALITY

Not Individual Case

## OUTCOME TYPE

Clinical Outcome

## PRE-EXISTING INSTRUMENT USED

Unspecified

## Computation of the Measure

## SCORING

Rate

## INTERPRETATION OF SCORE

Better quality is associated with a lower score

## ALLOWANCE FOR PATIENT FACTORS

Risk adjustment devised specifically for this measure/condition

## DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

This measure is adjusted for risk factors. Refer to the original measure documentation for details.

#### STANDARD OF COMPARISON

External comparison at a point in time  
External comparison of time trends  
Internal time comparison

### Evaluation of Measure Properties

#### EXTENT OF MEASURE TESTING

The core measure pilot project was a collaboration among the Joint Commission, five state hospitals associations, five measurement systems, and 83 hospitals from across nine states. Participating hospitals collected and reported data for acute myocardial infarction (AMI) measures from December 2000 to December 2001.

Core measure reliability visits were completed the summer of 2001 at a random sample of 16 participating hospitals across 6 states.

Preliminary data gathered from the pilot test show a mean measure rate of 0.09% for this measure.

#### EVIDENCE FOR RELIABILITY/VALIDITY TESTING

Joint Commission on Accreditation of Healthcare Organizations (JCAHO). A comprehensive review of development and testing for national implementation of hospital core measures. [internet]. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 2002 [cited 2002 Nov 13]. [8 p].

Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Information on final specifications for national implementation of hospital core measures as of 11/04/02. [internet]. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 2002 Nov 04 [cited 2002 Nov 13]. [10 p].

Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Overview of the acute myocardial infarction (AMI) core measure set. [internet]. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 2002 Mar 22 [cited 2002 Nov 13]. [4 p].

### Identifying Information

#### ORIGINAL TITLE

Inpatient mortality.

MEASURE COLLECTION

[Joint Commission on Accreditation of Healthcare Organizations \(JCAHO\) Core Performance Measures](#)

MEASURE SET NAME

[Acute Myocardial Infarction Core Performance Measures](#)

DEVELOPER

Joint Commission on Accreditation of Healthcare Organizations

ENDORSER

National Quality Forum

ADAPTATION

Measure was adapted from another source.

PARENT MEASURE

Intrahospital mortality of patients with a principal discharge diagnosis of acute myocardial infarction (AMI) (The MEDSTAT Group, Inc.)

RELEASE DATE

2000 Aug

REVISION DATE

2002 Jul

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Acute myocardial infarction core performance measures. In: Specifications manual for national implementation of hospital core measures. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 2002 July. p. AMI-1 to AMI-9-6.

MEASURE AVAILABILITY

The individual measure "Inpatient Mortality," is published in "Specifications Manual for National Implementation of Hospital Core Measures." Information is

available from the [Joint Commission on Accreditation of Healthcare Organizations \(JCAHO\) Web site](#). For further information refer to [www.jcaho.org](http://www.jcaho.org).

## COMPANION DOCUMENTS

The following are available:

- Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Overview of the acute myocardial infarction (AMI) core measure set. [internet]. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 2002 Mar 22 [cited 2002 Nov 13]. [4 p]. This document is available from the [Joint Commission on Accreditation of Healthcare Organizations \(JCAHO\) Web site](#).
- Joint Commission on Accreditation of Healthcare Organizations (JCAHO). A comprehensive review of development and testing for national implementation of hospital core measures. [internet]. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 2002 [cited 2002 Nov 13]. [8 p]. This document is available from the [JCAHO Web site](#).
- Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Attributes of core performance measures and associated evaluation criteria. [internet]. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 2002 [cited 2002 Nov 13]. [4 p]. This document is available from the [JCAHO Web site](#).
- Joint Commission on Accreditation of Healthcare Organizations (JCAHO). Information on final specifications for national implementation of hospital core measures as of 11/04/02. [internet]. Oakbrook Terrace (IL): Joint Commission on Accreditation of Healthcare Organizations (JCAHO); 2002 Nov 04 [cited 2002 Nov 13]. [10 p]. This document is available from the [JCAHO Web site](#).

## NQMC STATUS

This NQMC summary was completed by ECRI on December 27, 2002. The information was verified by the Joint Commission on Accreditation of Healthcare Organizations on January 17, 2003.

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