



## Complete Summary

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### TITLE

Acute myocardial infarction: percent of patients who received a thrombolytic agent within 30 minutes of hospital arrival.

### SOURCE(S)

Center for Medicare and Medicaid Services (CMS). 7th statement of work (SOW). Quality of care measure specifications: Acute myocardial infarction (AMI). Baltimore (MD): Center for Medicare and Medicaid Services (CMS); 2002 Aug 1. Various p.

## Brief Abstract

### DESCRIPTION

Acute myocardial infarction (AMI) patients receiving primary thrombolytic therapy during the hospital stay with a time from hospital arrival to thrombolysis of 30 minutes or less

### RATIONALE

Time to thrombolytic therapy is a strong predictor of outcome in patients with an acute myocardial infarction (AMI). Nearly 2 lives per 1000 patients are lost per hour of delay. National guidelines recommend that thrombolytic therapy be given within 30 minutes of hospital arrival in patients with ST elevation myocardial infarction. Despite these recommendations, few older patients hospitalized with AMI receive timely thrombolytic therapy.

### PRIMARY CLINICAL COMPONENT

Acute myocardial infarction; thrombolytic therapy; thrombolysis; thrombolytic agent

### DENOMINATOR DESCRIPTION

Acute myocardial infarction (AMI) patients with ST segment elevation or left bundle branch block (LBBB) on electrocardiogram (ECG) who received thrombolytic therapy (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

### NUMERATOR DESCRIPTION

Acute myocardial infarction (AMI) patients whose time from hospital arrival to thrombolysis is 30 minutes or less

### Evidence Supporting the Measure

#### PRIMARY MEASURE DOMAIN

Process

#### SECONDARY MEASURE DOMAIN

Not applicable

#### EVIDENCE SUPPORTING THE MEASURE

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

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

Overall poor quality for the performance measured

#### EVIDENCE SUPPORTING NEED FOR THE MEASURE

Jencks SF, Cuerdon T, Burwen DR, Fleming B, Houck PM, Kussmaul AE, Nilasena DS, Ordin DL, Arday DR. Quality of medical care delivered to Medicare beneficiaries: A profile at state and national levels. JAMA 2000 Oct 4;284(13):1670-6. [PubMed](#)

### State of Use of the Measure

#### STATE OF USE

Current routine use

#### CURRENT USE

Collaborative inter-organizational quality improvement  
Internal quality improvement

### 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

Unspecified

#### ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

#### BURDEN OF ILLNESS

Nearly 2 lives per 1000 patients are lost per hour of delay.

#### EVIDENCE FOR BURDEN OF ILLNESS

Appleby P, Baigent C, Collins R, Flather M, Parish S, Peto R, Bell P, Halls H, Mead G, Diaz R, et al. Indications for fibrinolytic therapy in suspected acute myocardial infarction--collaborative overview of early mortality and major morbidity results

from all randomised trials of more than 1000 patients. Lancet 1994 Feb 5; 343(8893): 311-22.

#### UTILIZATION

Unspecified

#### COSTS

Unspecified

### Institute of Medicine National Healthcare Quality Report Categories

#### IOM CARE NEED

Getting Better

#### IOM DOMAIN

Effectiveness  
Timeliness

### Data Collection for the Measure

#### CASE FINDING

Users of care only

#### DESCRIPTION OF CASE FINDING

Medicare discharges, 18 years and older, with a principal diagnosis of acute myocardial infarction (AMI)

#### DENOMINATOR (INDEX) EVENT

Clinical Condition  
Institutionalization  
Therapeutic Intervention

#### DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions  
Medicare discharges with:

- A principal diagnosis of acute myocardial infarction (AMI) (refer to the original measure documentation for International Classification of Diseases, Ninth Revision, Clinical Modification [ICD-9-CM] codes) AND
- ST segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to hospital arrival AND

- Thrombolytic therapy within 6 hours after hospital arrival

#### Exclusions

- Patients less than 18 years of age
- Patients received in transfer from another acute care hospital, including another emergency department

#### NUMERATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

Acute myocardial infarction (AMI) patients whose time from hospital arrival to thrombolysis is 30 minutes or less

##### Exclusions

Unspecified

#### DENOMINATOR TIME WINDOW

Time window is a single point in time

#### NUMERATOR TIME WINDOW

Fixed time period

#### DATA SOURCE

Administrative and medical records data

#### LEVEL OF DETERMINATION OF QUALITY

Individual Case

#### PRE-EXISTING INSTRUMENT USED

Unspecified

### Computation of the Measure

#### SCORING

Rate

#### INTERPRETATION OF SCORE

Better quality is associated with a higher score

#### ALLOWANCE FOR PATIENT FACTORS

Unspecified

#### STANDARD OF COMPARISON

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

### Evaluation of Measure Properties

#### EXTENT OF MEASURE TESTING

Unspecified

### Identifying Information

#### ORIGINAL TITLE

Thrombolytic agent received within 30 minutes of hospital arrival.

#### MEASURE COLLECTION

[7th Statement of Work Quality of Care Measure Specifications](#)

#### MEASURE SET NAME

[Acute Myocardial Infarction \(AMI\)](#)

#### DEVELOPER

Centers for Medicare and Medicaid Services

#### ENDORSER

National Quality Forum

#### ADAPTATION

Measure was not adapted from another source.

#### RELEASE DATE

2002 Aug

#### MEASURE STATUS

This is the current release of the measure.

#### SOURCE(S)

Center for Medicare and Medicaid Services (CMS). 7th statement of work (SOW).  
Quality of care measure specifications: Acute myocardial infarction (AMI).  
Baltimore (MD): Center for Medicare and Medicaid Services (CMS); 2002 Aug 1.  
Various p.

#### MEASURE AVAILABILITY

The individual measure, "AMI-7a: Thrombolytic Agent Received Within 30 Minutes of Hospital Arrival," is published in "Centers for Medicare/Medicaid Services, 7th Statement of Work, Quality of Care Measure Specifications: Acute Myocardial Infarction (AMI)."

For more information, e-mail CMS PROINQUIRIES at [proinquiries@cms.hhs.gov](mailto:proinquiries@cms.hhs.gov).

#### COMPANION DOCUMENTS

A software application designed for the collection and analysis of quality improvement data, the CMS Abstraction and Reporting Tool (CART), is available from the [CMS CART Web site](#). Supporting documentation is also available.

For more information, e-mail CMS PROINQUIRIES at [proinquiries@cms.hhs.gov](mailto:proinquiries@cms.hhs.gov).

#### NQMC STATUS

This NQMC summary was completed by ECRI on January 6, 2003. The information was verified by the Centers for Medicare/Medicaid Services on January 29, 2003.

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