

****NQF-ENDORSED VOLUNTARY CONSENSUS STANDARDS FOR HOSPITAL CARE****

Measure Information Form

Measure Set: Acute Myocardial Infarction

Set Measure ID#: AMI-7

Performance Measure Name: Mean Time to Thrombolysis

Description: Mean time from arrival to administration of thrombolytic agent in patients with ST segment elevation or left bundle branch block (LBBB) on the electrocardiogram (ECG) performed closest to hospital arrival time.

Rationale: Time to thrombolytic therapy is a strong predictor of outcome in patients with an acute myocardial infarction. Nearly 2 lives per 1000 patients are lost per hour of delay (Fibrinolytic Therapy Trialists' (FTT) Collaborative Group, 1994). National guidelines recommend that thrombolytic therapy be given within 30 minutes of hospital arrival in patients with ST elevation myocardial infarction (Ryan, 1999). Despite these recommendations, few older patients hospitalized with AMI receive timely thrombolytic therapy (Jencks, 2000).

Type of Measure: Process

Improvement Noted As: A decrease in the mean value

Continuous Variable Statement: Time (in minutes) from hospital arrival to administration of thrombolytic agent in patients with ST segment elevation or LBBB on the ECG performed closest to hospital arrival

Included Populations: Discharges with:

- An *ICD-9-CM Principal Diagnosis Code* for AMI as defined in Appendix A, Table 1.1
AND
- ST segment elevation or LBBB on the ECG performed closest to hospital arrival
AND
- Thrombolytic therapy within 6 hours after hospital arrival

Excluded Populations:

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

Data Elements:

- *Admission Date*
- *Admission Source*
- *Arrival Date*
- *Arrival Time*
- *Birthdate*
- *ICD-9-CM Principal Diagnosis Code*
- *Initial ECG Interpretation*
- *Thrombolytic Administration*
- *Thrombolytic Administration Date*
- *Thrombolytic Administration Time*
- *Transfer From Another ED*

Risk Adjustment: No

Data Collection Approach: Retrospective data sources for required data elements include administrative data and medical records.

Data Accuracy: Variation may exist in the assignment of ICD-9-CM codes; therefore, coding practices may require evaluation to ensure consistency.

Measure Analysis Suggestions: The mean time to thrombolysis should be analyzed in conjunction with the measure rate for thrombolysis received within 30 minutes of hospital arrival (AMI-7a). These measures, used together, will assist in understanding the mean time to thrombolysis, and will identify the number of AMI patients that are receiving thrombolysis within 30 minutes of hospital arrival and potential opportunities for improvement to decrease the mean time to thrombolysis.

Sampling: Yes, for additional information see the Sampling section

Data Reported As: Aggregate measure of central tendency

Selected References:

- Fibrinolytic Therapy Trialists' (FTT) Collaborative Group. 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;343:311-22.
- Jencks SJ, 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;284:1670-1676.
- Ryan TJ, Antman EM, Brooks NH, Califf RM, Hillis LD, Hiratzka LF, Rapaport E, Riegel B, Russell RO, Smith EE III, Weaver WD. 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). *J Am Coll Cardiol* 1999;34:890-911.

Available at <http://www.acc.org/clinical/guidelines> and <http://www.americanheart.org>.

- Ryan, TJ, Anderson, JL, Antman, EM, Braniff, BA, Brooks NH, Califf, RM, Hillis LD, Hiratzka L F, Rapaport E, Riegel BJ, Russell RO, Smith EE III, Weaver WD. 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). *J Am Coll Cardiol* 1996;28:1328-1428. Available at <http://www.acc.org> and <http://www.americanheart.org>.

AMI-7: Mean Time to Thrombolysis

Continuous Variable Statement: Time (in minutes) from hospital arrival to administration of thrombolytic agent in patients with ST segment elevation or LBBB on the ECG performed closest to hospital arrival.

Variable Key:
Patient Age





