

Measure Information Form
Collected For: CMS Only

Measure Set: Acute Myocardial Infarction (AMI)

Set Measure ID #: AMI-10

Performance Measure Name: Statin Prescribed at Discharge

Description: Acute myocardial infarction (AMI) patients who are prescribed a statin at hospital discharge.

Rationale: Several randomized clinical trials have proven the benefits of statin drugs (also known as HMG Co-A reductase inhibitors) in reducing the risk of death and recurrent cardiovascular events in a broad range of patients with established cardiovascular disease, including those with prior myocardial infarction (4S, 1994; Sacks, 1996; LIPID Study Group, 1998; and MRC/BHF Heart Protection Study, 2002). Current ACC/AHA guidelines place a strong emphasis on the initiation or maintenance of statin drugs for patients hospitalized with AMI, particularly those with LDL-cholesterol levels above 100 mg/dL (Antman, 2004; Smith, 2006; Anderson, 2007; and Antman, 2008). As a result of the strength of the evidence and guideline support, the ACC/AHA have developed a performance measure to assess this aspect of care for patients with acute myocardial infarction (Krumholz, 2008). Because statins are generally well-tolerated, most patients with AMI are appropriate candidates for this therapy.

Type of Measure: Process

Improvement Noted As: An increase in rate

Numerator Statement: AMI patients who are prescribed a statin medication at hospital discharge

Included Populations: Not applicable

Excluded Populations: None

Data Elements:

Statin Medication Prescribed at Discharge

Denominator Statement: AMI patients

Included Populations:

- Discharges with an *ICD-9-CM Principal Diagnosis Code* for AMI as defined in Appendix A, Table 1.1

Excluded Populations:

- Patients less than 18 years of age
- Patients who have a Length of Stay greater than 120 days
- Patients with *Comfort Measures Only* documented
- Patients enrolled in clinical trials
- Patients discharged/transferred to another hospital for inpatient care
- Patients who left against medical advice or discontinued care
- Patients who expired
- Patients discharged/transferred to a federal health care facility
- Patients discharged/transferred to hospice
- Patients with LDL less than 100 mg/dL within the first 24 hours after hospital arrival and not discharged on a statin
- Patients with a *Reason for Not Prescribing Statin Medication at Discharge*

Data Elements:

- *Admission Date*
- *Birthdate*
- *Clinical Trial*
- *Comfort Measures Only*
- *Discharge Date*
- *Discharge Status*
- *ICD-9-CM Principal Diagnosis Code*
- *LDL-c Less Than 100 Within 24 Hours After Arrival*
- *Reason for Not Prescribing Statin Medication at Discharge*

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: None

Sampling: Yes, please refer to the measure set specific sampling requirements and for additional information see the Population and Sampling Specifications section.

Data Reported As: Aggregate rate generated from count data reported as a proportion

Selected References:

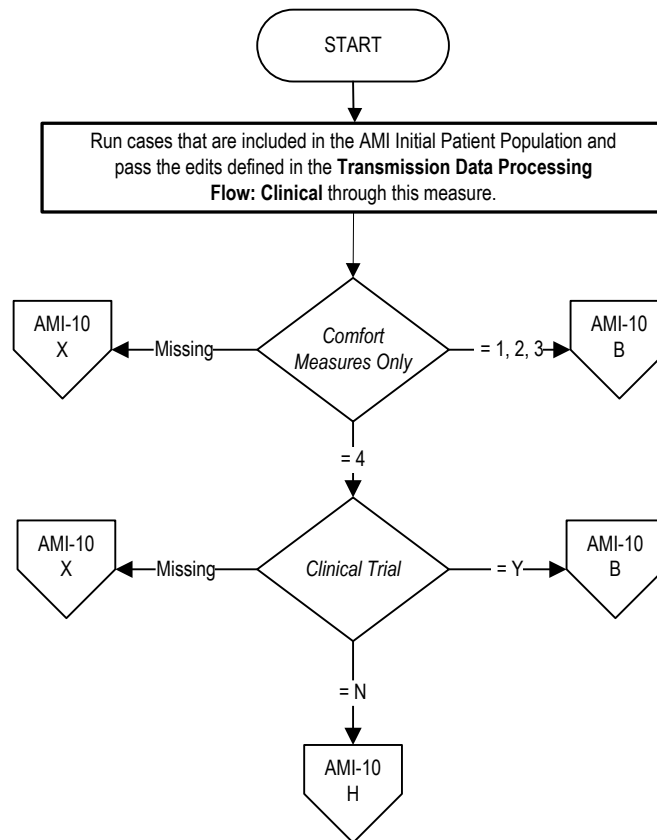
- Anderson JL, Adams CD, Antman EM, Bridges CR, Califf RM, Casey DE Jr, et al. ACC/AHA 2007 guidelines for the management of patients with unstable angina/non–ST-elevation myocardial infarction: a report of the American College

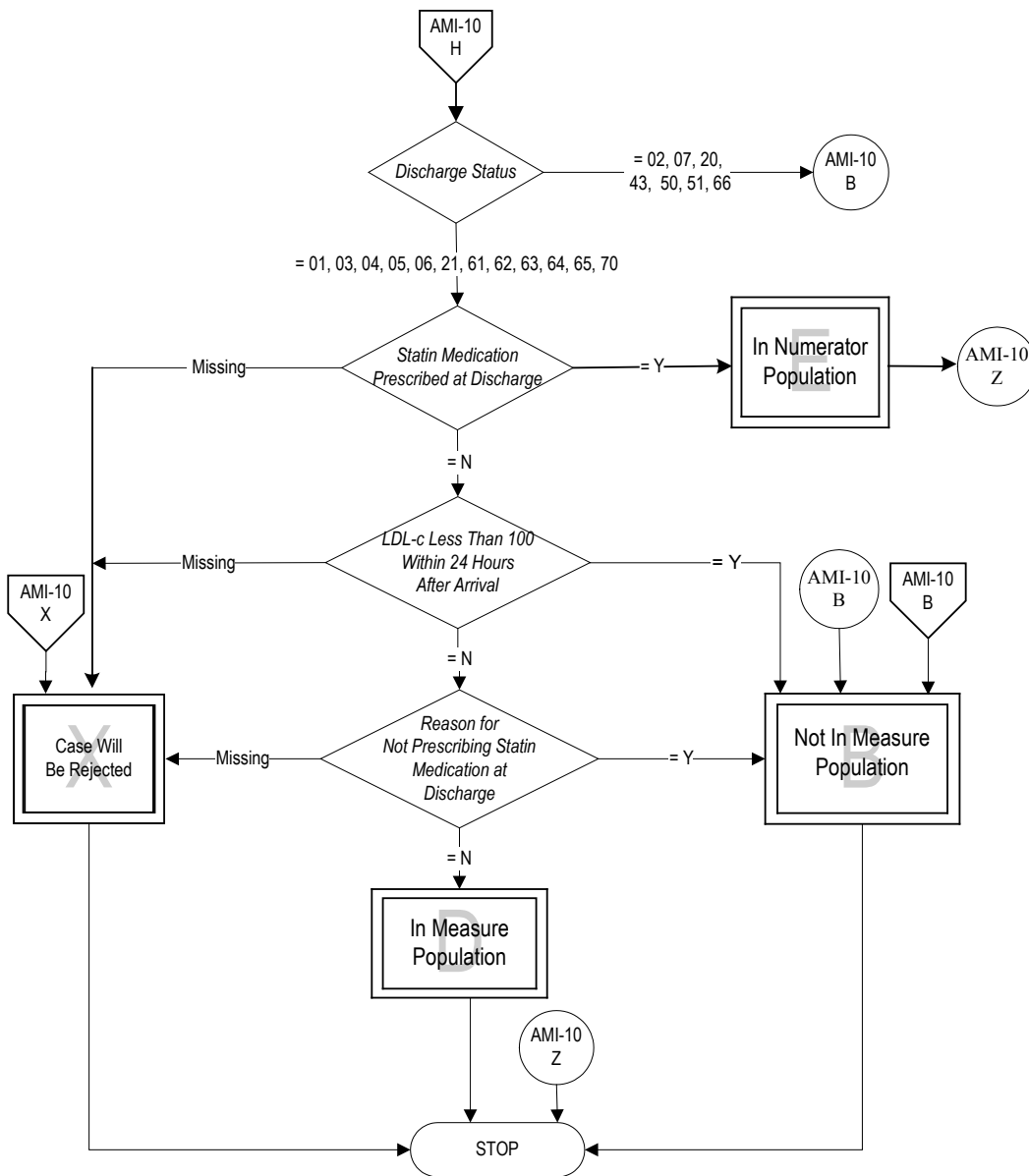
- of Cardiology/American Heart Association Task Force on Practice Guidelines (Writing Committee to Revise the 2002 Guidelines for the Management of Patients With Unstable Angina/Non–ST-Elevation Myocardial Infarction): developed in collaboration with the American College of Emergency Physicians, American College of Physicians, Society for Academic Emergency Medicine, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons. *J Am Coll Cardiol*. 2007;50:e1–157.
- Antman EM, Anbe DT, Armstrong PW, Bates ER, Green LA, Hand M, et al. ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Revise the 1999 Guidelines for the Management of Patients With Acute Myocardial Infarction). 2004.
 - Antman EM, Hand M, Armstrong PW, Bates ER, Green LA, Halasyamani LK, et al. 2007 focused update of the ACC/AHA 2004 Guidelines for the Management of Patients With ST-Elevation Myocardial Infarction: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Writing Group to Review New Evidence and Update the ACC/AHA 2004 Guidelines for the Management of Patients With ST-Elevation Myocardial Infarction). *J Am Coll Cardiol*. 2008;51:210–47.
 - Krumholz HM, Anderson JL, Bachelder BL, Fesmire FM, Fihn SD, Foody JM, et al. ACC/AHA 2008 performance measures for adults with ST-elevation and non–ST-elevation myocardial infarction: a report of the American College of Cardiology/American Heart Association Task Force on Performance Measures (Writing Committee to Develop Performance Measures for ST-Elevation and Non–ST-Elevation Myocardial Infarction). *J Am Coll Cardiol*. 2008;52:2046–99.
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 - Randomised trial of cholesterol lowering in 4444 patients with coronary heart disease: the Scandinavian Simvastatin Survival Study (4S). *Lancet*. 1994;344:1383-9.
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 - Smith SC, Allen J, Blair SN, Bonow RO, Brass LM, Fonarow GC, et al. AHA/ACC guidelines for secondary prevention for patients with coronary and other atherosclerotic vascular disease: 2006 update. *J Am Coll Cardiol*. 2006;47:2130–9. doi:10.1016/j.jacc.2006.04.026.

AMI-10: Statin Prescribed at Discharge

Numerator: AMI patients who are prescribed a statin medication at hospital discharge.

Denominator: AMI patients.





Acute Myocardial Infarction-10: Statin Prescribed at Discharge

Numerator: Acute Myocardial Infarction (AMI) patients who are prescribed a statin medication at hospital discharge.

Denominator: AMI patients.

1. Start processing. Run cases that are included in the AMI Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.
2. Check Comfort Measures Only
 - a. If Comfort Measures Only is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Comfort Measures Only equals 1, 2, or 3 the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - c. If Comfort Measures Only equals 4, continue processing and proceed to Clinical Trial.
3. Check Clinical Trial
 - a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - c. If Clinical Trial equals No, continue processing and proceed to Discharge Status.
4. Check Discharge Status
 - a. If the Discharge Status is equal to 02, 07, 20, 43, 50, 51, or 66, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - b. If the Discharge Status is equal to 01, 03, 04, 05, 06, 21, 61, 62, 63, 64, 65, or 70, continue processing and proceed to Statin Medication Prescribed at Discharge.
5. Check Statin Medication Prescribed at Discharge
 - a. If Statin Medication Prescribed at Discharge is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.

- b. If Statin Medication Prescribed at Discharge equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Stop processing.
 - c. If Statin Prescribed at Discharge equals No, continue processing and proceed to LDL-c Less Than 100 Within 24 Hours After Arrival.
- 6. Check LDL-c Less Than 100 Within 24 Hours After Arrival
 - a. If LDL-c Less Than 100 Within 24 Hours After Arrival is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If LDL-c Less Than 100 Within 24 Hours After Arrival equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - c. If LDL-c Less Than 100 Within 24 Hours After Arrival equals No, continue processing and proceed to Reason for Not Prescribing Statin Medication at Discharge.
- 7. Check Reason for Not Prescribing Statin Medication at Discharge
 - a. If Reason for Not Prescribing Statin Medication at Discharge is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
 - b. If Reason for Not Prescribing Statin Medication at Discharge equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the Measure Population. Stop processing.
 - c. If Reason for Not Prescribing Statin Medication at Discharge equals No, the case will proceed to a Measure Category Assignment of D and will be in the Measure Population. Stop processing.