Release Notes:
Measure Information Form
Version 2.0a

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

Measure Information Form

Measure Set: Acute Myocardial Infarction (AMI)

Set Measure ID#: AMI-7a

Performance Measure Name: Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival

Description: Acute myocardial infarction (AMI) patients receiving fibrinolytic therapy during the hospital stay and having a time from hospital arrival to fibrinolysis of 30 minutes or less

Rationale: Time to fibrinolytic 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' Collaborative Group, 1994). National guidelines recommend that fibrinolytic therapy be given within 30 minutes of hospital arrival in patients with ST-elevation myocardial infarction (Antman, 2004). Despite these recommendations, few eligible older patients hospitalized with AMI receive timely fibrinolytic therapy (Jencks, 2000).

Type of Measure: Process

Improvement Noted as: An increase in the rate

Numerator Statement: AMI patients whose time from hospital arrival to fibrinolysis is 30 minutes or less

Included Populations: Not Applicable

Excluded Populations: None

Data Elements:
- *Arrival Date*
- *Arrival Time*
- *Fibrinolytic Administration Date*
- *Fibrinolytic Administration Time*

Denominator Statement: AMI patients with ST-elevation or LBBB on ECG who received fibrinolytic therapy

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
- Fibrinolytic 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
- Patients with comfort measures only documented by a physician, nurse practitioner, or physician assistant
- Patients who did not receive fibrinolytic therapy within 30 minutes and had a reason for delay documented by a physician, nurse practitioner, or physician assistant (e.g., social, religious, initial concern or refusal)

Data Elements:

- *Admission Date*
- *Admission Source*
- *Arrival Date*
- *Arrival Time*
- *Birthdate*
- *Comfort Measures Only*
- *Fibrinolytic Administration*
- *Fibrinolytic Administration Date*
- *Fibrinolytic Administration Time*
- *ICD-9-CM Principal Diagnosis Code*
- *Initial ECG Interpretation*
- *Reason for Delay in Fibrinolytic Therapy*
- *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 measure rate for fibrinolytic agent received within 30 minutes of hospital arrival should be analyzed in conjunction with the median time to fibrinolysis measure (AMI-7). These measures, used together, will assist in understanding the number of AMI patients that are receiving fibrinolysis within 30 minutes of hospital arrival and will identify the hospital's median time to fibrinolysis and potential opportunities for improvement to increase the rate of patients receiving fibrinolysis in 30 minutes or less.

Sampling: Yes, for additional information see the Sampling Section.

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

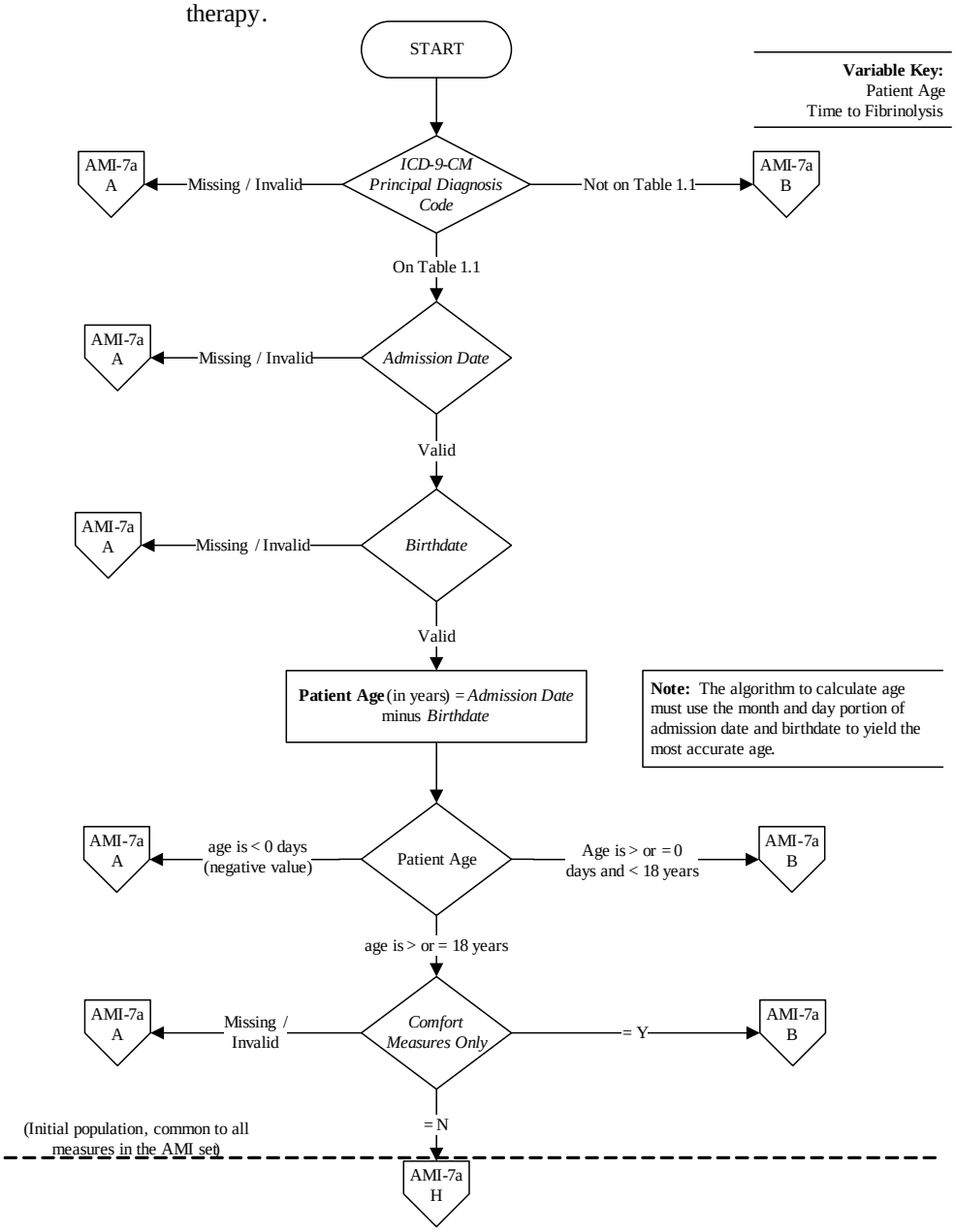
Selected References:

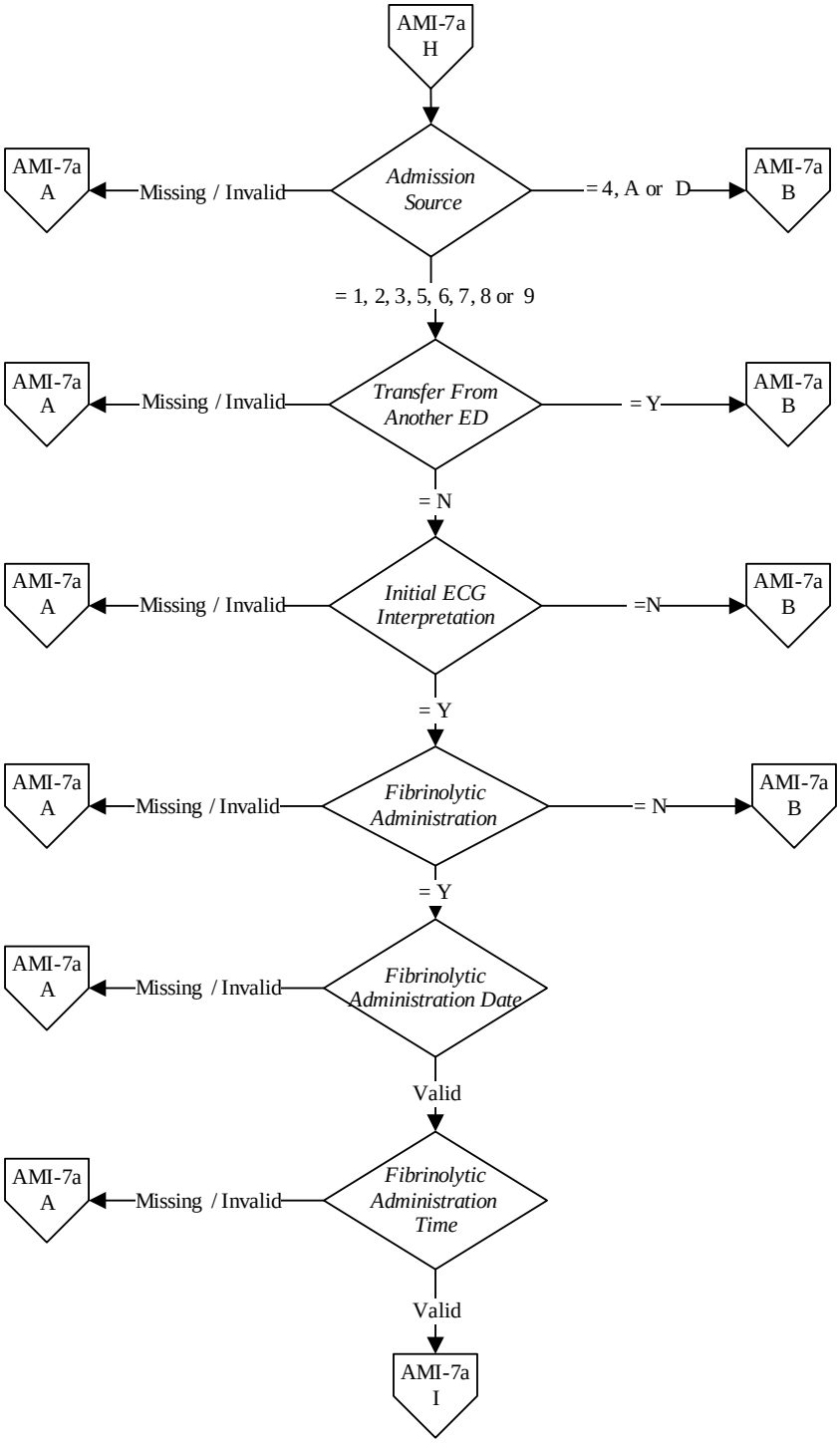
- Antman EM, Anbe DT, Armstrong PW, Bates ER, Green LA, Hand M, Hochman JS, Krumholz HM, Kushner FG, Lamas GA, Mullany CJ, Ornato JP, Pearle DL, Sloan MA, Smith SC Jr. ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Revise the 1999 Guidelines for the Management of Patients With Acute Myocardial Infarction). 2004. Available at www.acc.org/clinical/guidelines/stemi/index.pdf
- 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 randomized 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.
- Krumholz HM, Anderson JL, Brooks NH, Fesmir FM, Lambrew CT, Landrum MB, Weaver WD, Whyte J. ACC/AHA Clinical Performance Measures for Adults With ST-Elevation and Non–ST-Elevation Myocardial Infarction: a report of the ACC/AHA Task Force on Performance Measures (ST-Elevation and Non–ST-Elevation Myocardial Infarction Performance Measures Writing Committee). J Am Coll Cardiol 2006;47:236–65. Available at http://www.acc.org and http://www.americanheart.org.

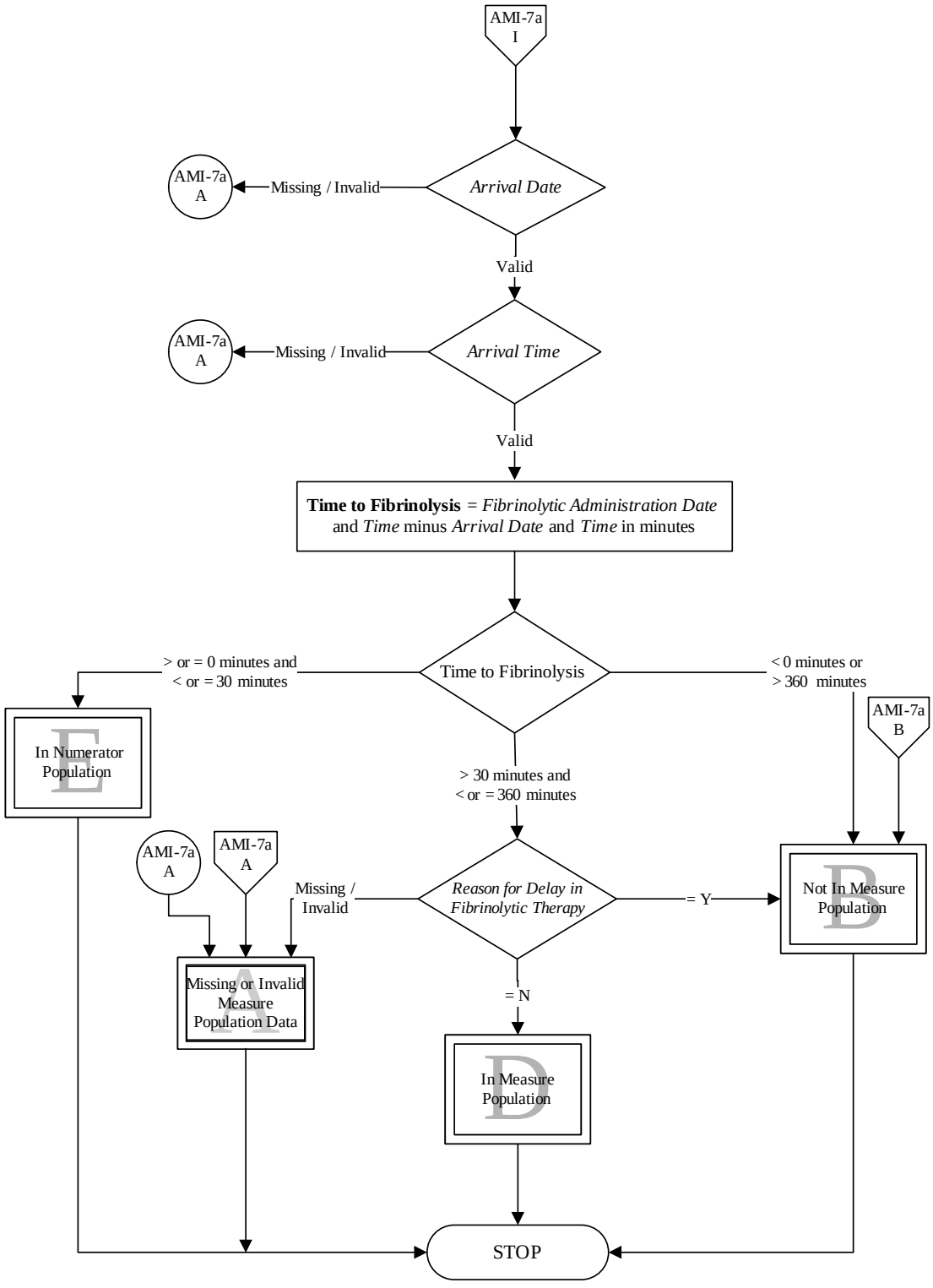
AMI-7a: Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival

Numerator: AMI patients whose time from hospital arrival to fibrinolysis is 30 minutes or less.

Denominator: AMI patients with ST-elevation or LBBB on ECG who received fibrinolytic therapy.




AMI-7a H
Admission Source
Missing / Invalid
AMI-7a A
= 4, A or D
AMI-7a B
= 1, 2, 3, 5, 6, 7, 8 or 9
Transfer From Another ED
Missing / Invalid
AMI-7a A
= Y
AMI-7a B
= N
Initial ECG Interpretation
Missing / Invalid
AMI-7a A
=N
AMI-7a B
= Y
Fibrinolytic Administration
Missing / Invalid
AMI-7a A
= N
AMI-7a B
= Y
Fibrinolytic Administration Date
Missing / Invalid
AMI-7a A
Valid
Fibrinolytic Administration Time
Missing / Invalid
AMI-7a A
Valid
AMI-7a I


AMI-7a I
Arrival Date
Missing / Invalid
AMI-7a A
Valid
Arrival Time
Missing / Invalid
AMI-7a A
Valid
Time to Fibrinolysis = Fibrinolytic Administration Date and Time minus Arrival Date and Time in minutes
Time to Fibrinolysis
> or = 0 minutes and < or = 30 minutes
< 0 minutes or > 360 minutes
> 30 minutes and < or = 360 minutes
In Numerator Population
E
AMI-7a B
AMI-7a A
AMI-7a A
Reason for Delay in Fibrinolytic Therapy
Missing / Invalid
= Y
Not In Measure Population
B
Missing or Invalid Measure Population Data
M
= N
In Measure Population
D
STOP