# GWTG-CAD STEMI Referring Hospital Achievement, Quality and Reporting Measures

## December 2020

# Contents

# Achievement Measures

<table>
<tr><td colspan="2" style="background-color:orange"><strong>AHACAD1:ACE-Inhibitor or Angiotensin Receptor Blocker (ARB) for LVSD at Discharge</strong></td></tr>
<tr><td colspan="2">Percentage of ST-elevation Myocardial Infarction  patients with left ventricular systolic dysfunction (EF < 40% or with moderate or severe LVSD) who are prescribed and ACEI or ARB at hospital discharge</td></tr>
<tr><td colspan="2"><strong>Initial Patient Population</strong></td></tr>
<tr><td>All patients age 18 years and older with STEMI</td><td>Arrival Date/Time  is not null<br>AND<br><br>Date of Birth  is not null<br><br>AND<br>Arrival Date/Time  MINUS Date of Birth  ≥18 years<br><br>AND<br>STEMI or STEMI Equivalent = 1 (Yes)</td></tr>
<tr><td colspan="2"><strong>Denominator</strong></td></tr>
<tr><td>Include:</td><td>Data Elements for Calculation</td></tr>
<tr><td>All patients in the initial patient population who have an ejection fraction < 40% or moderate or severe systolic dysfunction</td><td>Same as initial patient population<br>AND<br><br>LVF Assessment  is not null AND LVF Assessment   < 40%</td></tr>
</table>

| Exclusions: (Always remove from denominator) | |
|---|---|
| Patients who:<br>    • Are discharged to another acute care facility OR<br>    • Expire OR<br>    • Are discharged on comfort measures OR<br>    • Are receiving hospice services OR<br>    • Are discharged AMA OR<br>    • For whom both ACEI and ARB are contraindicated | <u>Discharge Status</u> = 2 (Hospice-Home) OR = 3 (Hospice-Healthcare Facility) OR = 4 (Acute Care Facility) OR = 6 (Expired) OR = 7 (Left Against Medical Advice/AMA)<br>OR<br><br><u>Comfort Measures Only</u> = 1 (Yes)<br>OR<br><br>(<u>ACEI at Discharge Prescribed</u> = 3 [None—Contraindicated]<br>AND<br><br><u>ARB at Discharge Prescribed</u> = 3 [None—Contraindicated]) |
| Exceptions: (Remove from denominator if present and numerator is not met) | |
| None | |
| Numerator | |
| Patients who were prescribed an ACEI or ARB at discharge | <u>ACEI at Discharge Prescribed</u> = 1 (Yes)<br>OR<br><br><u>ARB at Discharge Prescribed</u> = 1 (Yes) |

*Note: Entresto is a combination of sacubitril, a neprilysin inhibitor (ARNI), and valsartan, an angiotensin II receptor blocker (ARB). If Entresto, or another combination drug containing an ARB, is prescribed at discharge, this would fulfill the numerator.*

## AHACAD11: Adult Smoking Cessation Advice/Counseling

Percentage of ST-elevation Myocardial Infarction patients who smoke cigarettes who receive smoking cessation counseling or advice during the hospital stay.

### Initial Patient Population

| All patients age 18 years and older with STEMI | Arrival Date/Time is not null<br>AND<br><br>Date of Birth is not null<br><br>AND<br>Arrival Date/Time MINUS Date of Birth ≥18 years<br><br>AND<br>STEMI or STEMI Equivalent = 1 (Yes) |
|---|---|

### Denominator

| Include: | Data Elements for Calculation |
|---|---|
| All patients in the initial patient population with a history of smoking cigarettes anytime during the year prior to arrival | Same as initial patient population<br>AND<br><br>History of Smoking = 1 (Yes) |

| Exclusions: (Always remove from denominator) | |
|---|---|
| Patients who:<br>• Are discharged to another acute care facility OR<br>• Expire OR<br>• Are discharged on comfort measures OR<br>• Are receiving hospice services OR<br>• Are discharged AMA | Discharge Status = 2 (Hospice-Home) OR = 3 (Hospice-Healthcare Facility) OR = 4 (Acute Care Facility) OR = 6 (Expired) OR = 7 (Left Against Medical Advice/AMA)<br>OR<br><br>Comfort Measures Only = 1 (Yes) |

| Exceptions: (Remove from denominator if present and numerator is not met) | |
|---|---|
| None | N/A |

### Numerator

| Patients who are given smoking cessation advice or counseling during admission | Smoking Cessation Counseling = 1 (Yes) |
|---|---|

# AHACAD22:Arrival to Thrombolytics within 30 minutes

Percent of all ST-elevation Myocardial Infarction patients who receive thrombolytic therapy within 30 minutes of arrival

## Initial Patient Population

| All patients age 18 years and older with STEMI | Data Elements for Calculation |
|---|---|
| | Arrival Date/Time is not null<br>AND<br><br>Date of Birth is not null<br><br>AND<br>Arrival Date/Time MINUS Date of Birth ≥18 years<br><br>AND<br>STEMI or STEMI Equivalent = 1 (Yes) |

## Denominator

| Include: | Data Elements for Calculation |
|---|---|
| All patients in the initial population:<br>• Who received thrombolytics at this hospital<br>  AND<br>• Arrival time and thrombolytic start time are not missing<br>  AND<br>• Arrival time and thrombolytic start time are not missing AND are in MMD/DD/YYYY HH:MM format<br>  AND<br>• Time from arrival to thrombolytic time is not negative (less than zero)<br>  AND<br>• Time from arrival to thrombolytic time is ≤ 12 hours. | Same as initial patient population<br>AND<br><br>Thrombolytics = 1 (Yes)<br>AND<br><br>Arrival Date/Time is in MM/DD/YYYY HH:MM format<br><br>Dose Start Date/Time is not null<br>AND<br><br>Dose Start Date/Time is in MM/DD/YYYY HH:MM format<br>AND<br><br>[Dose Start Date/Time MINUS Arrival Date/Time ] ≥ 0<br>AND<br><br>[Dose Start Date/Time MINUS Arrival Date/Time ] ≤ 12 hours |

### Exclusions: (Always remove from denominator)

| Patients who were transferred from another acute care facility | Transferred from other facility = 1 (Yes) |
|---|---|

### Exceptions: (Remove from denominator if present and numerator is not met)

| Patients who did not receive thrombolytic therapy within 30 minutes AND had a documented non-system reason for delay. | Documented non-system reason or delay- Lytics = 1 (Yes) |
|---|---|

| Numerator | |
|---|---|
| Patients who received thrombolytics within 30 minutes of arrival | [Dose Start Date/Time MINUS Arrival Date/Time ] ≤ 30 minutes |

## AHACAD23:Arrival to Transfer to PCI Center within 45 minutes (Door In Door Out)

Percentage of ST-elevation Myocardial Infarction patients who are transferred out for primary PCI within 45 minutes of arrival

### Initial Patient Population

| All patients age 18 years and older with STEMI | Data Elements for Calculation |
|---|---|
| | Arrival Date/Time is not null |
| | AND |
| | |
| | Date of Birth is not null |
| | |
| | AND |
| | Arrival Date/Time MINUS Date of Birth ≥18 years |
| | |
| | AND |
| | STEMI or STEMI Equivalent = 1 (Yes) |

### Denominator

| Include: | Data Elements for Calculation |
|---|---|
| All patients in the initial population:<br>• With STEMI or STEMI equivalent noted on first EKG<br>• AND<br>• Who were transferred out for primary PCI AND<br>• Whose arrival time and discharge time are not missing AND are in MMD/DD/YYYY HH:MM format AND<br>• Time from arrival to discharge is not negative (less than zero) AND<br>• Time from arrival to discharge is not >24 hours. | Same as initial patient population<br>AND<br><br>STEMI or STEMI Equivalent First Noted = 1 (First ECG)<br>AND<br><br>Discharge Status = 4 (Acute Care Facility)<br>AND<br><br>Discharge Date/Timeis not null<br>AND<br><br>Discharge Date/Timeis in MM/DD/YYYY HH:MM format<br>AND<br><br>Arrival Date/Time is in MM/DD/YYYY HH:MM format |

| | AND |
|---|---|
| | [Discharge Date/TimeMINUS Arrival Date/Time ] ≥ 0<br>AND |
| | [Discharge Date/TimeMINUS Arrival Date/Time ] ≤ 24 hours |
| **Exclusions: (Always remove from denominator)** | |
| Patients who receive thrombolytic therapy | Thrombolytics = 1 (Yes) |
| **Exceptions: (Remove from denominator if present and numerator is not met)** | |
| Patients who were not transferred out for primary PCI within 45 minutes of arrival AND had a documented non-system reason for delay in PCI | Non-system Reason for Delay = 2 (Patient delays in providing consent) OR = 4 (Cardiac arrest and/or need for intubation) OR = 7 [Emergent placement of LV support device prior to PCI]<br>OR<br><br>EMS Non-System Reason for Delay is not null |
| **Numerator** | |
| Patients who were transferred out for primary PCI within 45 minutes of arrival | [Discharge Date/TimeMINUS Arrival Date/Time ] ≤ 45 minutes |

## AHACAD13: Aspirin at Arrival

Percentage of ST-elevation Myocardial Infarction patients who receive aspirin within 24 hours before or after first medical contact (if arriving via EMS, Air, or Mobile ICU), or within 24 hours before or after hospital arrival (if arriving via privately owned vehicle)

### Initial Patient Population

| | |
|---|---|
| All patients age 18 years and older with STEMI | Arrival Date/Time is not null<br>AND<br><br>Date of Birth is not null<br><br>AND<br>Arrival Date/Time MINUS Date of Birth ≥18 years<br><br>AND<br>STEMI or STEMI Equivalent = 1 (Yes) |

### Denominator

| Include: | Data Elements for Calculation |
|---|---|
| All patients in the initial patient population | Same as Initial Patient Population |

#### Exclusions: (Always remove from denominator)

| | |
|---|---|
| Patients who:<br><ul><li>Were on warfarin, dabigatran, rivaroxaban or apixaban at home OR</li><li>Are discharged to another acute care facility OR</li><li>Are discharged on the day of or the day after arrival OR</li><li>Are discharged on comfort measures OR</li><li>Are discharged AMA OR</li><li>Died on the day of or the day after arrival OR</li><li>For whom aspirin is contraindicated</li></ul> | Patient Current Meducations = 1 (Dabigitran) OR = 2 (Rivaroxaban) OR = 3 (Apixaban) OR = 4 (Warfarin)<br>OR<br><br>Transferred from Outside Facility = 1 (Yes)<br>OR<br><br>Discharge Status = 7 (Left Against Medical Advice/AMA)<br>OR<br><br>[MM/DD/YYYY of Discharge Date/Time= MM/DD/YYYY of Arrival Date/Time ]<br>OR<br><br>[(MM/DD/YYYY of Discharge Date/Time= MM/DD/YYYY of Arrival Date/Time + 1]<br>OR<br><br>[Discharge Status = 6 (Expired) |

| | AND<br>(MM/DD/YYYY of Discharge Date/Time= MM/DD/YYYY of Arrival Date/Time<br>OR<br>(MM/DD/YYYY of Discharge Date/Time) = MM/DD/YYYY of Arrival Date/Time<br>+ 1)]<br>OR<br><br>Comfort Measures Only = 1 (Yes)<br>OR<br><br>Aspirin within 24 Hours of Arrival  = 3 (Contraindicated) |
|---|---|
| Exceptions: (Remove from denominator if present and numerator is not met) | |
| • Patients who were transferred from another acute care facility<br>• Patient currently enrolled in a clinical trial precluding the use of aspirin in its protocol | Discharge Status  = 4 (Acute Care Facility)<br>OR<br><br>(Enrolled in Clinical Trial During Hospitalization  = 1 [Yes]<br>AND<br>Type of Clinical Trial  = 1 [Precluding the use of aspirin in its protocol]) |
| Numerator | |
| Patients who received aspirin within 24 hours of first medical contact | Aspirin within 24 Hours of Arrival  = 1 (Yes) |

## AHACAD3: Aspirin at Discharge

Percentage of ST-elevation Myocardial Infarction patients prescribed aspirin at discharge

### Initial Patient Population

| | |
|---|---|
| All patients age 18 years and older with STEMI | Arrival Date/Time is not null<br>AND<br><br>Date of Birth is not null<br><br>AND<br>Arrival Date/Time MINUS Date of Birth ≥18 years<br><br>AND<br>STEMI or STEMI Equivalent = 1 (Yes) |

### Denominator

| Include: | Data Elements for Calculation |
|---|---|
| All patients in the initial patient population | Same as Initial Patient Population |

**Exclusions: (Always remove from denominator)**

| | |
|---|---|
| Patients who:<br>• Are discharged to another acute care facility OR<br>• Expire OR<br>• Are discharged on comfort measures OR<br>• Are receiving hospice services OR<br>• Are discharged AMA OR<br>• Are prescribed warfarin, dabigatran, rivaroxaban or apixaban at discharge OR<br>• For whom aspirin is contraindicated | Anticoagulation at Discharge: Medication = 1 (Coumadin (warfarin) OR = 3 (Dabigitran) OR = 10 (Rivaroxaban) OR = 7 (Apixaban)<br>OR<br><br>Discharge Status = 2 (Hospice-Home) OR = 3 (Hospice-Healthcare Facility) OR = 4 (Acute Care Facility) OR = 6 (Expired) OR = 7 (Left Against Medical Advice/AMA)<br>OR<br><br>Comfort Measures Only = 1 (Yes)<br>OR<br><br>Aspirin at Discharge: Prescribed = 3 [None—Contraindicated] |

**Exceptions: (Remove from denominator if present and numerator is not met)**

| | |
|---|---|
| Patient currently enrolled in a clinical trial precluding the use of aspirin in its protocol | Enrolled in Clinical Trial During Hospitalization = 1 [Yes]<br>AND<br><br>Type of Clinical Trial = 1[Precluding the use of aspirin in its protocol] |

### Numerator

| | |
|---|---|
| Patients who are prescribed aspirin at discharge | Aspirin at Discharge: Prescribed = 1 (Yes) |

# AHACAD4: Beta-Blocker at Discharge

Percentage of ST-elevation Myocardial Infarction patients prescribed a beta blocker at hospital discharge

## Initial Patient Population

| All patients age 18 years and older with STEMI | Arrival Date/Time is not null<br>AND<br><br>Date of Birth is not null<br><br>AND<br>Arrival Date/Time MINUS Date of Birth ≥18 years<br><br>AND<br>STEMI or STEMI Equivalent = 1 (Yes) |
|---|---|

## Denominator

| Include: | Data Elements for Calculation |
|---|---|
| All patients in the initial patient population | Same as initial patient population |

### Exclusions: (Always remove from denominator)

| Patients who:<br>• Are discharged to another acute care facility OR<br>• Expire OR<br>• Are discharged on comfort measures OR<br>• Are receiving hospice services OR<br>• Are discharged AMA OR<br>• For whom beta-blockers are contraindicated | Discharge Status = 2 (Hospice-Home) OR = 3 (Hospice-Healthcare Facility) OR = 4 (Acute Care Facility) OR = 6 (Expired) OR = 7 (Left Against Medical Advice/AMA)<br>OR<br><br>Comfort Measures Only = 1 (Yes)<br>OR<br>Beta-blocker at Discharge Prescribed = 3 [None—Contraindicated] |
|---|---|

### Exceptions: (Remove from denominator if present and numerator is not met)

| None | N/A |
|---|---|

## Numerator

| Patients who were prescribed a beta-blocker at discharge | Beta-blocker at Discharge Prescribed = 1 (Yes) |
|---|---|

## AHACAD24: ECG within 10 minutes of Arrival

Percentage of ST-elevation Myocardial Infarction patients who received an ECG within 10 minutes of arrival

### Initial Patient Population

| All patients age 18 years and older with STEMI | Data Elements for Calculation |
|---|---|
| | Arrival Date/Time is not null<br>AND<br><br>Date of Birth is not null<br><br>AND<br>Arrival Date/Time MINUS Date of Birth ≥18 years<br><br>AND<br>STEMI or STEMI Equivalent = 1 (Yes) |

### Denominator

| Include: | Data Elements for Calculation |
|---|---|
| All patients in the initial population whose:<br>• Arrival time and ECG time are not missing AND are in MMD/DD/YYYY HH:MM format<br>• Time from arrival to ECG time is not negative (less than zero)<br>AND<br>• Time from arrival to ECG is ≤ 12 hours | Same as initial patient population<br>AND<br><br>Arrival Date/Time is not null<br>AND<br><br>First ECG Date/Time is not null<br>AND<br><br>Arrival Date/Time is in MM/DD/YYYY HH:MM format<br>AND<br><br>First ECG Date/Time is in MM/DD/YYYY HH:MM format<br>AND<br><br>(First ECG Date/Time MINUS Arrival Date/Time ) ≥ 0<br>AND ≤ 12 hours |
| **Exclusions: (Always remove from denominator)** | |
| • Patients who were transferred from another acute care facility<br>• Patients with ECG performed prior to hospital arrival | Transferred from other facility = 1 (Yes)<br>OR<br><br>First ECG Obtained = 1 (Prior to hospital arrival) |

| Exceptions: (Remove from denominator if present and numerator is not met) | |
|---|---|
| Patients who did not receive ECG within 10 minutes of arrival AND had a documented non-system reason for delay in the first ECG. | First ECG Non-System Reason for Delay = 1 (Yes) |
| Numerator | |
| Patients who received ECG within 10 minutes of arrival | First ECG Date/Time MINUS Arrival Date/Time ≤ 10 min |

## AHACAD7: High-Intensity Statin at Discharge

Percentage of ST-elevation Myocardial Infarction  patients who are prescribed a high-intensity statin at hospital discharge

### Initial Patient Population

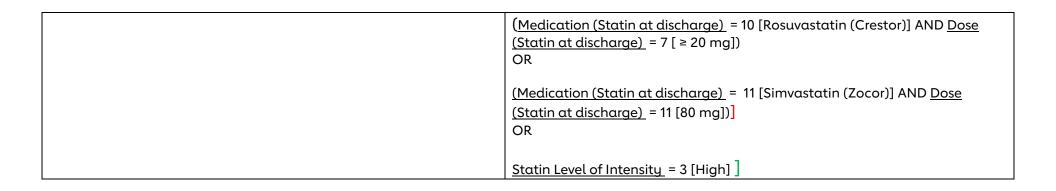| | |
|---|---|
| All patients age 18 years and older with STEMI | Arrival Date/Time  is not null<br>AND<br><br>Date of Birth  is not null<br><br>AND<br>Arrival Date/Time  MINUS Date of Birth  ≥18 years<br><br>AND<br>STEMI or STEMI Equivalent  = 1 (Yes) |

### Denominator

| Include: | Data Elements for Calculation |
|---|---|
| Same as initial patient population | Same as Initial Patient Population |

**Exclusions: (Always remove from denominator)**

| | |
|---|---|
| Patients who:<br>• Are discharged AMA OR<br>• Expire during hospitalization OR<br>• Are discharged to hospice or are on comfort measures OR<br>• Are transferred to another acute care facility OR<br>• | Discharge Status  = 2 (Hospice-Home) OR = 3 (Hospice-Healthcare Facility) OR = 4 (Acute Care Facility) OR = 6 (Expired) OR = 7 (Left Against Medical Advice/AMA)<br>OR<br><br>Comfort Measures Only = 1 (Yes) |

**Exceptions: (Remove from denominator if present and numerator is not met)**

| | |
|---|---|
| • Documentation of a medical reason for not prescribing a high-intensity statin (e.g., allergy, intolerance or contraindications to high-intensity statin(s), risk of interaction between drugs, or other medical reasons) OR<br>• Documentation of a patient reason for not prescribing a statin (e.g., patient refusal) OR<br>• Documentation of prescription of a moderate-intensity statin for patients > 75 years of age OR<br>• Patient currently enrolled in a clinical trial related to lipid-lowering therapy | Non-System Reason for not Prescribing High-Intensity Statin (nsysrsnstat) = 1 [Yes, Medical Reason] OR = 2 [Yes, Patient Reason]<br>OR<br><br>[ (Arrival Date/Time  MINUS Date of Birth ) > 75 years<br>AND<br><br>Statin at Discharge Prescribed  = 1 (Yes)<br>AND |

| | [ (Medication (Statin at discharge) = 1 [Amlodipine + Atorvastatin (Caduet)] AND Dose (Statin at discharge) = 12 [2.5/10 mg] or = 13 [2.5/20 mg] or = 15 [5/10 mg] or = 16 [5/20 mg] or = 19 [10/10 mg] or = 20 [10/20 mg]) OR |
| | |
| | (Medication (Statin at discharge) = 2 [Atorvastatin (Lipitor]) AND Dose (Statin at discharge) = 5 [10 mg] or = 6 [20 mg]) OR |
| | |
| | (Medication (Statin at discharge) = 3 [Ezetemibe + Simvastatin (Vytorin)] AND Dose (Statin at discharge) = 20 [10/20 mg] or = 21 [10/40 mg]) OR |
| | |
| | (Medication (Statin at discharge) = 4 [Fluvastatin (Lescol)] AND Dose (Statin at discharge) = 11 [80mg]) OR |
| | |
| | (Medication (Statin at discharge) = 13 [Fluvastatin XL (Lescol XL)] AND Dose (Statin at discharge) = 11 [80mg]) |
| | |
| | (Medication (Statin at discharge) = 6 [Lovastatin Extended Release (Aldoprev)] AND Dose (Statin at discharge) = 8 [40 mg] OR = 10 [60 mg]) OR |
| | |
| | (Medication (Statin at discharge) = 5 = [Lovastatin (Mevacor)] AND Dose (Statin at discharge) = 8 [40 mg]) OR |
| | |
| | (Medication (Statin at discharge) = 7 [Lovastatin + Niacin (Advicor)] AND Dose (Statin at discharge) = 27 [40/1000 mg]) OR |
| | |
| | (Medication (Statin at discharge) = 8 [Pitavastatin (Livalo)] AND Dose (Statin at discharge) = 2 [2 mg] OR = 3 [4 mg]) OR |
| | |
| | (Medication (Statin at discharge) = 9 [Pravastatin (Pravachol)] AND Dose (Statin at discharge) = 8 [40 mg] OR = 11 [80 mg]) OR |

| | (Medication (Statin at discharge) = 10 [Rosuvastatin (Crestor)] AND Dose (Statin at discharge) = 4 [5 mg] OR = 5 [10 mg]) OR |
| | |

(Medication (Statin at discharge) = 10 [Rosuvastatin (Crestor)] AND Dose (Statin at discharge) = 4 [5 mg] OR = 5 [10 mg])
OR

(Medication (Statin at discharge) = 11 [Simvastatin (Zocor)] AND Dose (Statin at discharge) = 6 [20 mg] OR = 8 [40 mg])
OR

(Medication (Statin at discharge) = 12 [Simvastatin + Niacin (Simcor] AND Dose (Statin at discharge) = 23 [20/500 mg] OR = 24 [20/750 mg] OR = 25 [20/1000] OR = 26 [40/500 mg] OR = 27 [40/1000] OR = 28 [40/2000 mg (2 X 20/1000)])
OR

Statin Level of Intensity = 2 [Moderate] ] ]
OR

[Enrolled in Clinical Trial During Hospitalization = 1 (Yes)
AND

_ = 5 [Related to lipid-lowering therapy ]]

## Numerator

| Patients who were prescribed a high-intensity statin at discharge | Statin at Discharge Prescribed = 1 (Yes) AND |
|---|---|

Statin at Discharge Prescribed = 1 (Yes)
AND

[ [(Medication (Statin at discharge) = 1 [Amlodipine + Atorvastatin (Caduet)] AND Dose (Statin at discharge) = 14 [2.5/40 mg] OR = 17 [5/40 mg] OR = 18 [5/80 mg] OR = 21 [10/40 mg])
OR

(Medication (Statin at discharge) = 2 [Atorvastatin (Lipitor)] AND Dose (Statin at discharge) = 9 [≥ 40 mg])
OR

(Medication (Statin at discharge) = 3 [Ezetimibe + Simvastatin (Vytorin)] AND Dose (Statin at discharge) = 22 [10/80 mg])
OR

| | |
|---|---|
| | (Medication (Statin at discharge) = 10 [Rosuvastatin (Crestor)] AND Dose (Statin at discharge) = 7 [ ≥ 20 mg]) <br> OR <br><br> (Medication (Statin at discharge) = 11 [Simvastatin (Zocor)] AND Dose (Statin at discharge) = 11 [80 mg])] <br> OR <br><br> Statin Level of Intensity = 3 [High] ] |

# Composite Measure

| <span style="background:#FFA500">AHACAD27:</span>Overall Mission Lifeline® Composite Score—STEMI Referring Hospital | |
|---|---|
| Proportion of performance opportunities that were met among eligible opportunities for all 9 individual achievement measures. | |
| **Initial Patient Population** | |
| All patients age 18 years and older with STEMI | Arrival Date/Time is not null <br> AND <br><br> Date of Birth is not null <br><br> AND <br> Arrival Date/Time MINUS Date of Birth ≥18 years <br><br> AND <br> STEMI or STEMI Equivalent = 1 (Yes) |
| **Denominator** | |
| Include: | Data Elements for Calculation |
| All patients with STEMI <br><br> Count of all measure opportunities [i.e., count of all denominators (i.e., all eligible STEMI patients) for all of the 9 component measures] | Sum of denominator counts for each of the 9 measures. <br><br> Data elements as per the individual measures |

| Measures include:<br>1. ACE-Inhibitor or Angiotensin Receptor Blocker (ARB) for LVSD at Discharge<br>2. Adult Smoking Cessation Advice<br>3. Arrival to Thrombolytics within 30 minutes<br>4. Arrival to Transfer to PCI Center within 45 minutes (Door In Door Out)<br>5. Aspirin at Arrival<br>6. Aspirin at Discharge<br>7. Beta-Blocker at Discharge<br>8. ECG within 10 minutes of Arrival<br>9. High-Intensity Statin at Discharge | |

| | |
|---|---|
| **Exclusions: (Always remove from denominator)** | |
| Per the individual component measures | Per the individual component measures |
| **Exceptions: (Remove from denominator if present and numerator is not met)** | |
| Per the individual component measures | Per the individual component measures |
| **Numerator** | |
| Count of all measure opportunities that were met (i.e., count of all patients in the numerators for all of the 9 component measures | Sum of the numerator counts for each of the 9 component measures |

# Quality Measure

<table>
<tr>
<td colspan="2"><strong>AHACAD25:</strong>Arrival to Transfer to PCI Center within 30 minutes (Plus Measure)</td>
</tr>
<tr>
<td colspan="2">Percentage of ST-elevation Myocardial Infarction  patients who are transferred out for primary PCI within  30 minutes of arrival</td>
</tr>
<tr>
<td colspan="2"><strong>Initial Patient Population</strong></td>
</tr>
<tr>
<td>All patients age 18 years and older with STEMI</td>
<td>Arrival Date/Time  is not null<br>AND<br><br>Date of Birth  is not null<br><br>AND<br>Arrival Date/Time  MINUS Date of Birth  ≥18 years<br><br>AND<br>STEMI or STEMI Equivalent = 1 (Yes)</td>
</tr>
<tr>
<td colspan="2"><strong>Denominator</strong></td>
</tr>
<tr>
<td>Include:</td>
<td>Data Elements for Calculation</td>
</tr>
<tr>
<td>All patients in the initial patient population
<ul>
<li>With STEMI or STEMI equivalent noted on first EKG</li>
<li>AND</li>
<li>Who were transferred out for primary PCI AND</li>
<li>Whose arrival time and discharge time are not missing AND are in MMD/DD/YYYY HH:MM format AND</li>
<li>Time from arrival to discharge is not negative (less than zero) AND</li>
<li>Time from arrival to discharge is not >24 hours.</li>
</ul></td>
<td>Same as initial patient population<br>AND<br><br>STEMI or STEMI Equivalent First Noted  = 1 (First ECG)<br>AND<br><br>Discharge Status  = 4 (Acute Care Facility)<br>AND<br><br>Discharge Date/Timeis not null<br>AND<br><br>Discharge Date/Timeis in MM/DD/YYYY HH:MM format<br>AND<br><br>Arrival Date/Time  is in MM/DD/YYYY HH:MM format<br>AND<br><br>[Discharge Date/TimeMINUS Arrival Date/Time ] ≥ 0</td>
</tr>
</table>

|  | AND |
|  |  |
|  | [Discharge Date/TimeMINUS Arrival Date/Time ] ≤ 24 hours |
| Exclusions: (Always remove from denominator) | |
| Patients who receive thrombolytic therapy | Thrombolytics = 1 (Yes) |
| Exceptions: (Remove from denominator if present and numerator is not met) | |
| Patients who were not transferred out for primary PCI within 30 minutes of arrival AND had a documented non-system reason for delay in PCI | Non-system Reason for Delay = 2 (Patient delays in providing consent) OR = 4 (Cardiac arrest and/or need for intubation) OR = 7 [Emergent placement of LV support device prior to PCI] OR<br><br>EMS Non-System Reason for Delay is not null |
| Numerator | |
| Patients who are transferred out for primary PCI within 30 minutes of arrival | [Discharge Date/TimeMINUS Arrival Date/Time ] ≤ 30 minutes |

# Reporting Measures

## AHACAD5: Cardiac Rehabilitation Patient Referral from an Inpatient Setting

Percentage of patients hospitalized with ST elevation Myocardial Infarction who were referred to an outpatient cardiac rehabilitation (CR) program during their hospital stay

### Initial Patient Population

| | |
|---|---|
| All patients age 18 years and older with STEMI | <u>Arrival Date/Time</u> is not null<br>AND<br><br><u>Date of Birth</u> is not null<br>AND<br><br><u>Arrival Date/Time</u> MINUS Date of Birth ≥18 years<br>AND<br><br><u>STEMI or STEMI Equivalent</u> = 1(Yes) |

### Denominator

| Include: | Data Elements for Calculation |
|---|---|
| All patients in the initial patient population | Same as initial patient population |

#### Exclusions: (Always remove from denominator)

| | |
|---|---|
| <ul><li>Patients who are comfort measures only</li><li>Patients who are discharged/transferred to hospice,</li><li>Patients who are discharged/transferred to another acute care facility,</li><li>Patients who expire</li><li>Patients who leave against medical advice</li></ul> | <u>Comfort Measures Only</u> = 1 (Yes)<br>OR<br><br><u>Discharge Status</u> = 2 (Hospice-Home) OR = 3 (Hospice-Healthcare Facility) OR = 4 (Acute Care Facility) OR = 6 (Expired) OR = 7 (Left Against Medical Advice/AMA) |

#### Exceptions: (Remove from denominator if present and numerator is not met)

| | |
|---|---|
| Patients who were not referred to an early outpatient cardiac rehabilitation (CR) program prior to discharge<br>AND<br>Have a documented medical, patient-oriented or healthcare system reason why a referral to cardiac rehabilitation was not made | <u>Patient Referred to Cardiac Rehab</u>) = 3 (No-Medical Reason)<br>OR = 4 (No-Patient-Oriented Reason)<br>OR = 5 (No-Healthcare System Reason) |

### Numerator

| | |
|---|---|
| Patients who are referred* to an outpatient CR program prior to hospital discharge<br>OR<br>Who refused referral to an outpatient CR program | <u>Patient Referred to Cardiac Rehab</u>) = 1 (Yes) |

*Referral is defined as:
1. Documented communication between the healthcare provider and the patient to recommend an outpatient CR program
AND
2A. Official referral order is sent to outpatient CR program OR 2B. Documentation of patient refusal to justify why patient information was not sent to the CR program

## **NEW** AHACAD19: Health-Related Social Needs Assessment

Percentage of ST-elevation Myocardial Infarction patients discharged from your facility that had documentation of a standardized health- related social needs form or assessment completed during admission.

### Initial Patient Population

| All patients age 18 years and older with STEMI | Arrival Date/Time  is not null<br>AND<br><br>Date of Birth  is not null<br>AND<br><br>Arrival Date/Time  MINUS Date of Birth  ≥18 years<br>AND<br><br>STEMI or STEMI Equivalent = 1 [Yes] |
|---|---|

### Denominator

| Include: | Data Elements for Calculation |
|---|---|
| All patients in the initial patient population | Same as initial patient population |

**Exclusions: (Always remove from denominator)**

| <ul><li>Patients who are discharged to hospice</li><li>Patients who are transferred to another acute care facility</li><li>Patients who are discharged/transferred to  other health care facility</li><li>Patients who expire</li><li>Patients who leave against medical advice</li></ul> | Discharge Status  = 2 [Hospice-Home] OR = 3 [Hospice-Healthcare Facility] OR = 4 [Acute Care Facility] OR = 5 [Other Health Care Facility] OR = 6 [Expired] OR = 7 [Left Against Medical Advice/AMA] |
|---|---|

**Exceptions: (Remove from denominator if present and numerator is not met)**

| None | N/A |
|---|---|

### Numerator

| Patients who had a validated health-related social needs assessment completed during the admission. | During this admission, was a standardized health related social needs form or assessment completed? = 1 [Yes] |
|---|---|

## AHACAD26: STEMI-positive ECG to Interfacility Transport Requested within 10 minutes

Percentage of ST-elevation Myocardial Infarction  patients whose time from first STEMI-positive 12-lead ECG to Interfacility transport requested is less than or equal to 10 minutes

### Initial Patient Population

| All patients age 18 years and older with STEMI | Arrival Date/Time  is not null<br>AND<br><br>Date of Birth  is not null<br><br>AND<br>Arrival Date/Time  MINUS Date of Birth  ≥18 years<br><br>AND<br>STEMI or STEMI Equivalent  = 1 (Yes) |
|---|---|

### Denominator

| Include: | Data Elements for Calculation |
|---|---|
| All patients in the initial patient population:<br>• Who were transferred to another acute care facility<br>  AND<br>• Whose first 12-lead ECG was performed after arrival at the Referring Hospital | Same as Initial Patient Population<br>AND<br><br>Not admitted, transferred out another acute care facility  is not null<br>AND<br><br>1st ECG obtained = 2 (After hospital arrival) |

| Exclusions: (Always remove from denominator) | |
|---|---|
| • Transport requested time is missing or is not in MM/DD/YYYY HH:MM format<br>• STEMI first noted on first ECG and first ECG time is missing or not in MM/DD/YYYY format OR<br>• STEMI first noted on subsequent ECG and subsequent ECG time is missing or not in MM/DD/YYYY OR<br>• Calculated time from first STEMI-positive ECG to transport requested is negative. | Transport Requested  is null OR is not in MMDDYYYY HHMM format<br>OR<br><br>[STEMI or STEMI Equivalent First Noted  = 1 (First ECG)<br>AND<br><br> (First ECG date/time  is null OR is not  in MM/DD/YYYY HH:MM format<br>OR<br>Transport Requested  < First ECG date/time )]<br>OR |

| | [STEMI or STEMI Equivalent First Noted = 2 (Subsequent ECG) AND<br><br>(Date/Time of positive ECG is null OR is not in MM/DD/YYYY HH:MM format OR<br>Transport Requested < Date/Time of positive ECG )] |
|---|---|
| **Exceptions: (Remove from denominator if present and numerator is not met)** | |
| Patients who received thrombolytics at the Referring Hospital | Thrombolytics = 1 (Yes) |

## Numerator

| | |
|---|---|
| Patients for whom interfacility transport was requested within 10 minutes of first STEMI-positive ECG | [STEMI or STEMI Equivalent First Noted = 1 (First ECG) AND<br>Transport Requested MINUS First ECG date/time ≤ 10 minutes] OR<br><br>[STEMI or STEMI Equivalent First Noted = 2 (Subsequent ECG) AND<br>Transport Requested MINUS Date/Time of positive ECG ≤ 10 minutes] |