ND STROKE AND CARDIAC DATA REPORTING: GET WITH THE GUIDELINES®-STROKE & CORONARY ARTERY DISEASE

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OBJECTIVES

- National Chest Pain and STEMI Guideline Updates
- Get With The Guidelines®-Stroke and Coronary Artery Disease
- 2021 Mission: Lifeline Recognition

American Heart Association.

American Heart Association.

American Heart Association.
Get With The Guidelines.
Coronary Artery Disease

Rural Disparities in Care

- According to the Call to Action: Rural Health, A Presidential Advisory from the American Heart Association and American Stroke Association (Feb 2020), rural residents in the U.S. have a 30% increased risk for stroke mortality compared with urban residents

Circulation
Volume 141, Issue 10, 10 March 2020; Pages e615-e644
https://doi.org/10.1161/CIR.0000000000000753

American Heart Association.

AHA PRESIDENTIAL ADVISORY

Call to Action: Rural Health: A Presidential Advisory From the American Heart Association and American Stroke Association

Robert A. Harrington, MD, FAHA, Chair, Robert M. Califf, MD, Co-Chair, Appathurai Balamurugan, MD, MPH, DrPH, Nancy Brown, Regina M. Benjamin, MD, MBA, Wendy E. Braund, MD, MPH, MSEd, Janie Hipp, JD, LLM, Madeleine Konig, MPH, Eduardo Sanchez, MD, MPH, and Karen E. Joynt Maddox, MD, MPH

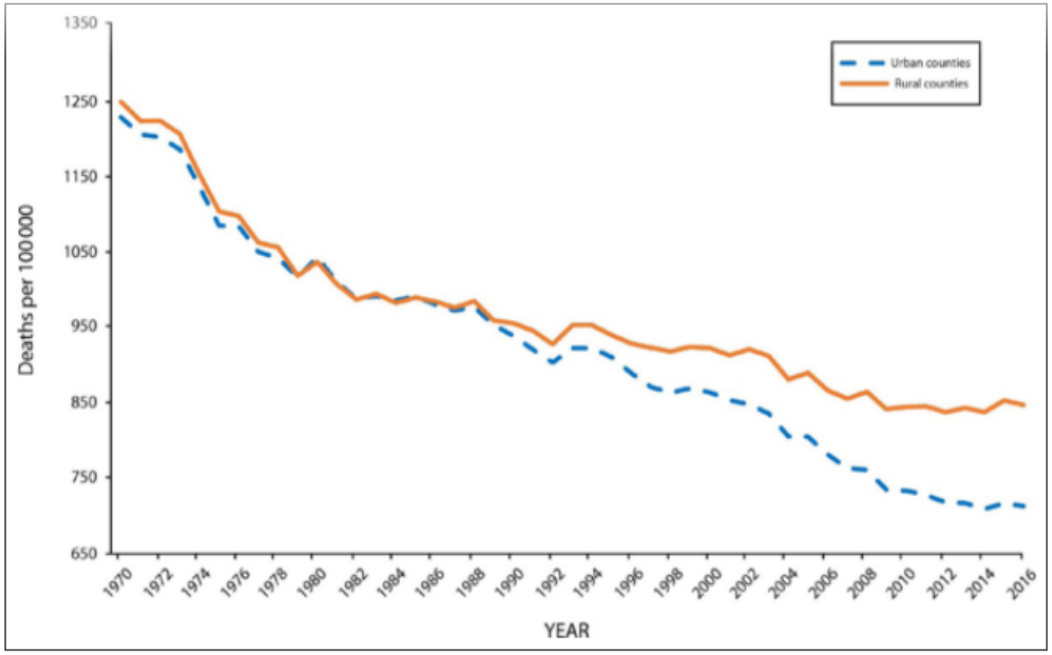


Figure 1. **Trends in rural and urban age-adjusted (all-cause) mortality for the United States (1970–2016).**
Reproduced from Cosby et al[7] with permission. Copyright © 2019, American Public Health Association.

Call to Action: Rural Health: A Presidential Advisory From the American Heart Association and American Stroke Association (ahajournals.org)

American Heart Association.

American Heart Association. Get With The Guidelines. Coronary Artery Disease

Where Can I Locate the Guidelines in Order to "Get With the Guidelines"?

AHA Achievement and Quality Measures focus on Guideline Based Therapy that can be the most impactful for Patient Outcomes

STEMI Guidelines Link:

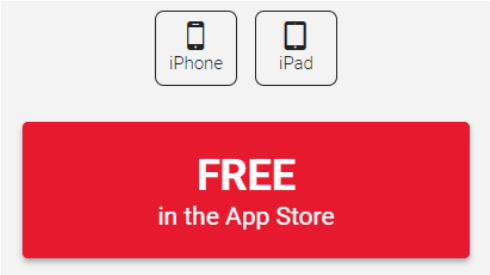
2013 STEMI Guidelines
2015 STEMI/PCI Update

NSTEMI Guidelines Link:

2014 NSTEMI Guidelines

Clinical Performance Guidelines Link:

2017 Clinical Performance & Quality Measures for STEMI/NSTEMI



AHA Guidelines On-The-Go by American Heart Association

2021 Guideline for the Evaluation and Diagnosis of Chest Pain

Published: October 28, 2021

- **Chest Pain Means More Than Pain in the Chest.** Pain, pressure, tightness, or discomfort in the chest, shoulders, arms, neck, back, upper abdomen, or jaw, as well as shortness of breath and fatigue should all be considered anginal equivalents.
- **Share the Decision-Making.** Clinically stable patients presenting with chest pain should be included in decision-making; information about risk of adverse events, radiation exposure, costs, and alternative options should be provided to facilitate the discussion.
- **Structured Risk Assessment Should Be Used.** For patients presenting with acute or stable chest pain, risk for coronary artery disease and adverse events should be estimated using evidence-based diagnostic protocols.

2021 Guideline for the Evaluation and Diagnosis of Chest Pain - Professional Heart Daily | American Heart Association

Supporting Materials

- Top Things to Know: 2021 Guideline for the Evaluation and Diagnosis of Chest Pain
- Executive Summary
- Guideline Slide Set (PDF)
- AHA Clinical Update Slide Set (PPTX)

2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain: Executive Summary: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines | Circulation (ahajournals.org)

American Heart Association.

Top Things to Know: 2021 Guideline for the Evaluation and Diagnosis of Chest Pain

Published: October 28, 2021

1. **Chest Pain Means More Than Pain in the Chest**. Pain, pressure, tightness, or discomfort in the chest, shoulders, arms, neck, back, upper abdomen, or jaw, as well as shortness of breath and fatigue should all be considered anginal equivalents.
2. **High-Sensitivity Troponins Preferred**. High-sensitivity cardiac troponins are the preferred standard for establishing a biomarker diagnosis of acute myocardial infarction, allowing for more accurate detection and exclusion of myocardial injury.
3. **Early Care for Acute Symptoms**. Patients with acute chest pain or chest pain equivalent symptoms should seek medical care immediately by calling 9-1-1. Although most patients will not have a cardiac cause, the evaluation of all patients should focus on the early identification or exclusion of life-threatening causes.
4. **Share the Decision-Making**. Clinically stable patients presenting with chest pain should be included in decision-making; information about risk of adverse events, radiation exposure, costs, and alternative options should be provided to facilitate the discussion.
5. **Testing Not Needed Routinely for Low-Risk Patients**. For patients with acute or stable chest pain determined to be low risk, urgent diagnostic testing for suspected coronary artery disease is not needed.

2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain: Executive Summary: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines | Circulation (ahajournals.org)

American Heart Association.

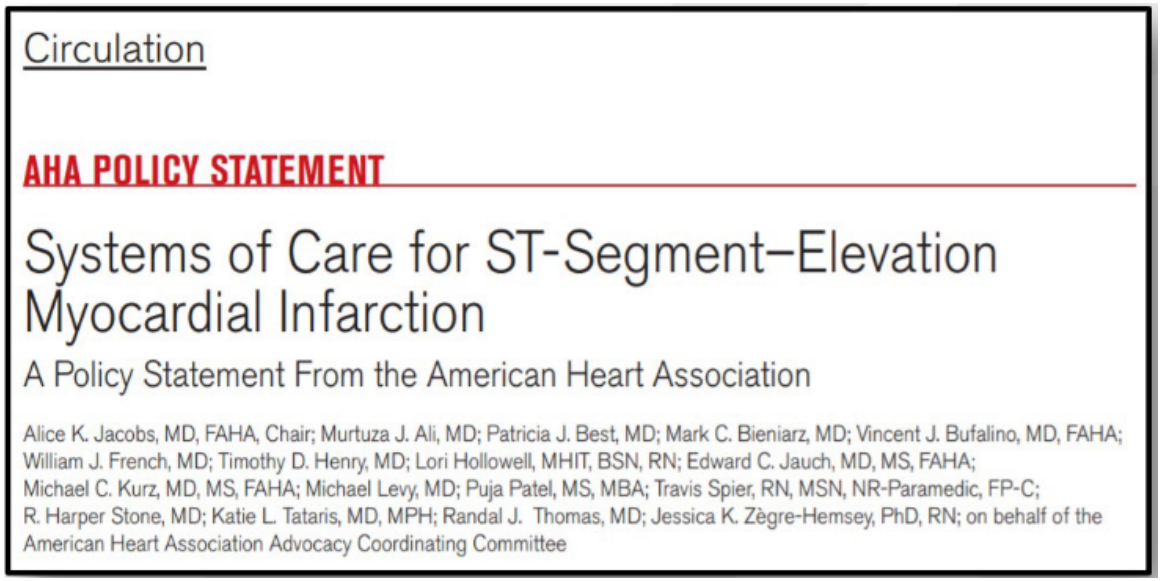
6. **Pathways**. Clinical decision pathways for chest pain in the emergency department and outpatient settings should be used routinely.
7. **Accompanying Symptoms.** Chest pain is the dominant and most frequent symptom for both men and women ultimately diagnosed with Acute Coronary Syndrome. Women may be more likely to present with accompanying symptoms such as nausea and shortness of breath**.**
8. **Identify Patients Most Likely to Benefit From Further Testing.** Patients with acute or stable chest pain who are at intermediate risk or intermediate to high pre-test risk of obstructive coronary artery disease, respectively, will benefit the most from cardiac imaging and testing.
9. **Noncardiac Is In. Atypical Is Out.** "Noncardiac" should be used if heart disease is not suspected. "Atypical" is a misleading descriptor of chest pain, and its use is discouraged.
10. **Structured Risk Assessment Should Be Used**. For patients presenting with acute or stable chest pain, risk for coronary artery disease and adverse events should be estimated using evidence-based diagnostic protocols.

2021 AHA/ACC/ASE/CHEST/SAEM/SCCT/SCMR Guideline for the Evaluation and Diagnosis of Chest Pain: Executive Summary: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines | Circulation (ahajournals.org)

American Heart Association.

American Heart Association. Get With The Guidelines. Coronary Artery Disease

STEMI Systems of Care Paper



Circulation

AHA POLICY STATEMENT

Systems of Care for ST-Segment–Elevation Myocardial Infarction

A Policy Statement From the American Heart Association

Alice K. Jacobs, MD, FAHA, Chair; Murtuza J. Ali, MD; Patricia J. Best, MD; Mark C. Bieniarz, MD; Vincent J. Bufalino, MD, FAHA; William J. French, MD; Timothy D. Henry, MD; Lori Hollowell, MHIT, BSN, RN; Edward C. Jauch, MD, MS, FAHA; Michael C. Kurz, MD, MS, FAHA; Michael Levy, MD; Puja Patel, MS, MBA; Travis Spier, RN, MSN, NR-Paramedic, FP-C; R. Harper Stone, MD; Katie L. Tataris, MD, MPH; Randal J. Thomas, MD; Jessica K. Zègre-Hemsey, PhD, RN; on behalf of the American Heart Association Advocacy Coordinating Committee

STEMI Systems of Care Policy Statement Webinar
Listen here | Access Passcode: STEMI21

Dr. Alice Jacobs interview with Becker's Hospital Review:
https://www.beckershospitalreview.com/podcasts/becker-s-cardiology-podcast/how-to-care-for-patients-experiencing-the-deadliest-heart-attack-82968501.html

Originally published13 Oct 2021https://doi.org/10.1161/CIR.0000000000001025Circulation. 2021;144:e310–e327

OPPORTUNITIES TO FOCUS ON

- Public Awareness Campaigns
- 911 Destination Transport Protocols
- Early Cath Lab Activation
- Improve Door In Door out Times
- Regional Transfer for PCI Protocols and Processes
- Feedback Loops
- Organized Participation in Regional System of Care
  - Data Sharing
  - Best Practices
- Increased Attention to Cardiogenic Shock and Out of Hospital Cardiac Arrest

Systems of Care for ST-Segment–Elevation Myocardial Infarction: A Policy Statement From the American Heart Association | Circulation (ahajournals.org)

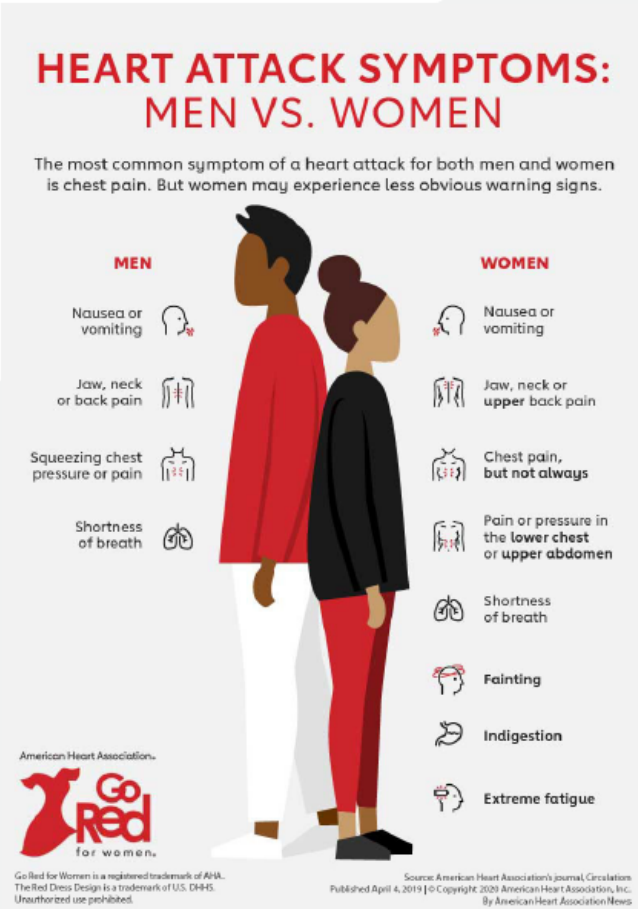
STEMI CARE: POPULATIONS

Public awareness campaigns and community education should target women

- Ischemic symptoms vary in women
- Among Hispanic, Non-Hispanic Black and younger women, awareness that heart disease is the leading cause of death among women has declined from 2009 to 2019

Women experience delay in 12 Lead ECG acquisition

- 53-minute mean time to ECG in women
- 34-minute mean time to ECG in men



Systems of Care for ST-Segment–Elevation Myocardial Infarction: A Policy Statement From the American Heart Association | Circulation (ahajournals.org)

HIGHLIGHTS FOR REFERRAL HOSPITALS AND SOC

- STEMI Referring hospitals should have a planned reperfusion strategy in place
- A 911 call system should be used for requesting IFT in the absence of immediately available hospital-based transport services
- Interhospital request time to arrival time should be within 15 minutes
- STEMI Referring hospitals and STEMI Receiving centers should have pre-planned agreements in place: 1) 1 Call transfer process 2) Automatic acceptance 3) Transfer process
- STEMI Receiving Centers should have protocols in place to be able to quickly treat STEMI patients

American Heart Association.

Systems of Care for ST-Segment–Elevation Myocardial Infarction: A Policy Statement From the American Heart Association | Circulation (ahajournals.org)

POLICY RECOMMENDATIONS: EMS ENTRY INTO THE HEALTHCARE SYSTEM

- Health care professionals should advocate for patients with signs and symptoms of a heart attack to call 911 for EMS transport to decrease symptom onset to arrival time and time to definitive care through well coordinated and culturally diverse PA campaigns
- All ALS EMS should provide 12 Lead ECG as a standard
- Basic EMT providers should be trained and granted permission to acquire 12-Lead ECGs on patients experiencing chest pain/other ischemic symptoms/suspected STEMI with findings communicated in accordance with local, regional or state protocol
- EMS destination protocols should be designed to meet EMS FMC to PCI guideline recommendations
- EMS Pre-hospital STEMI activation protocols should be developed and implemented

Systems of Care for ST-Segment–Elevation Myocardial Infarction: A Policy Statement From the American Heart Association | Circulation (ahajournals.org)

STEMI REFERRING HOSPITAL & INTERFACILITY TRANSPORT

INTERFACILITY (IFT) TRANSPORT PLAN

Option A — Interfacility Transport

Option B — BACK UP – Interfacility Transport

Private Ground Transport Provider

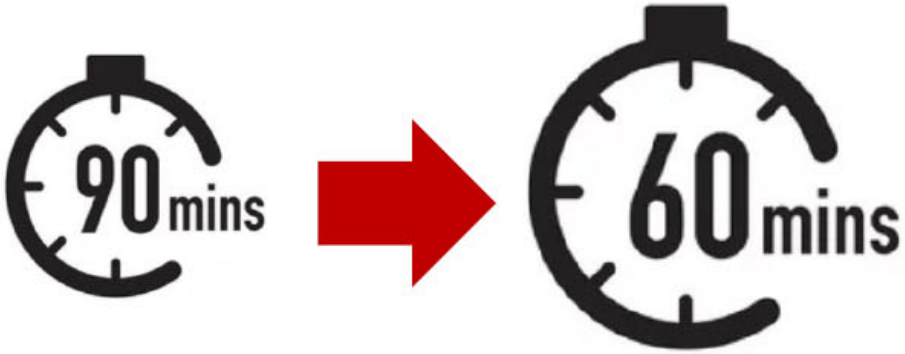
Air Medical Transport Provider

EMS Ground Transport Provider

Systems of Care for ST-Segment–Elevation Myocardial Infarction: A Policy Statement From the American Heart Association | Circulation (ahajournals.org)

STEMI RECEIVING CENTER

New conceptual standard – DOOR TO DEVICE ≤60 MINUTES



Door to Device
Guideline since 2004

- EMS engagement
- Early Pre-Hospital ECG acquisition
- Early STEMI notification
- Pre-Hospital STEMI activation protocols
- Decreased length of stay in ED or ED bypass

Krumholz, Harlan M. Improvements in Door to Balloon Time in the US 2005-2010 Circulation 2011, 124:1038-1045. Published Online August 22, 2011

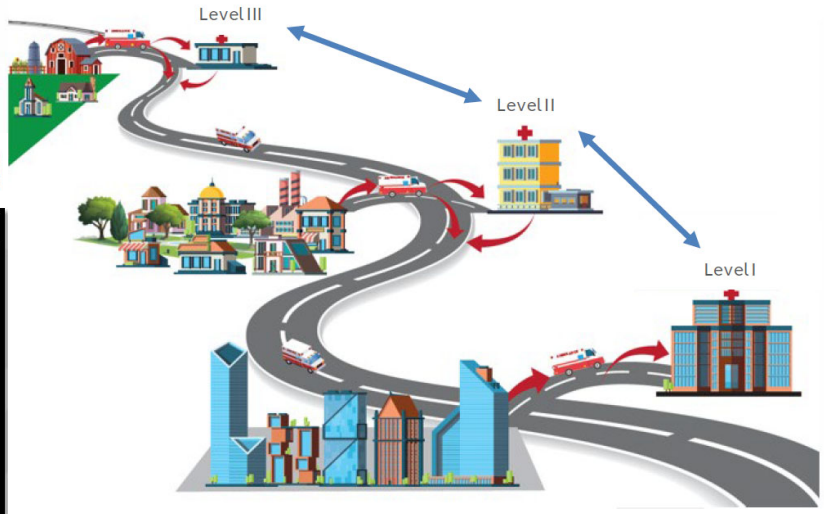
3 LEVELS OF HEART ATTACK HOSPITAL CERTIFICATION

RECOMMENDED LEVELS OF HEART ATTACK CARE

Table 4. Level of Care Characteristics*

Heart attack level	AHAR hospital	PHAC	CHAC
Alternative name of heart attack level	Level III	Level II	Level I
Designation characteristics	24/7/365 STEMI referring hospital	24/7/365 PCI capable	24/7/365 STEMI receiving center: cardiac surgery on site, cardiogenic shock, advanced hemodynamic support, OHCA support
Annual PCI volume (institutional), n†‡	NA	≥150	≥400
Annual primary PCI institutional volume, n‡	NA	≥36	≥36
Annual PCI volume (provider), n‡	NA	≥50	≥50
Annual primary PCI volume (provider), n‡	NA	≥11	≥11
Circulatory support (IABP)	NA	Required	Required
Advanced circulatory support (e.g., ECMO, LVAD)	NA	Not required	Required
Cardiac surgery on site	NA	Not required	Required
Cardiogenic shock support	NA	Not required	Required
Comprehensive post arrest care, including TTM	TTM required	TTM required	Comprehensive post arrest care TTM required
Rapid response team	NA	Required	Required
Cardiothoracic intensive care unit	NA	Not required	Required
Coronary intensive care unit	NA	Required	Required
Cardiac rehabilitation services	Locally available	Locally available	Locally available
Fibrinolytic administration capability	Required	Required	Required
National AMI data registry participation	Required	Required	Required
Transfer agreement	Required transfer agreement in place with Level I or Level II facilities	Required transfer agreement in place with Level I (PHAC) when advanced levels of critical care needed	Required transfer agreements in place to accept patients from Level II and III facilities requiring advanced care
Regional system of care engagement	Required	Required	Required
Other criteria			Air medical transport with advanced circulatory support (e.g. ECMO, LVAD) services

CARDIAC SYSTEM OF CARE



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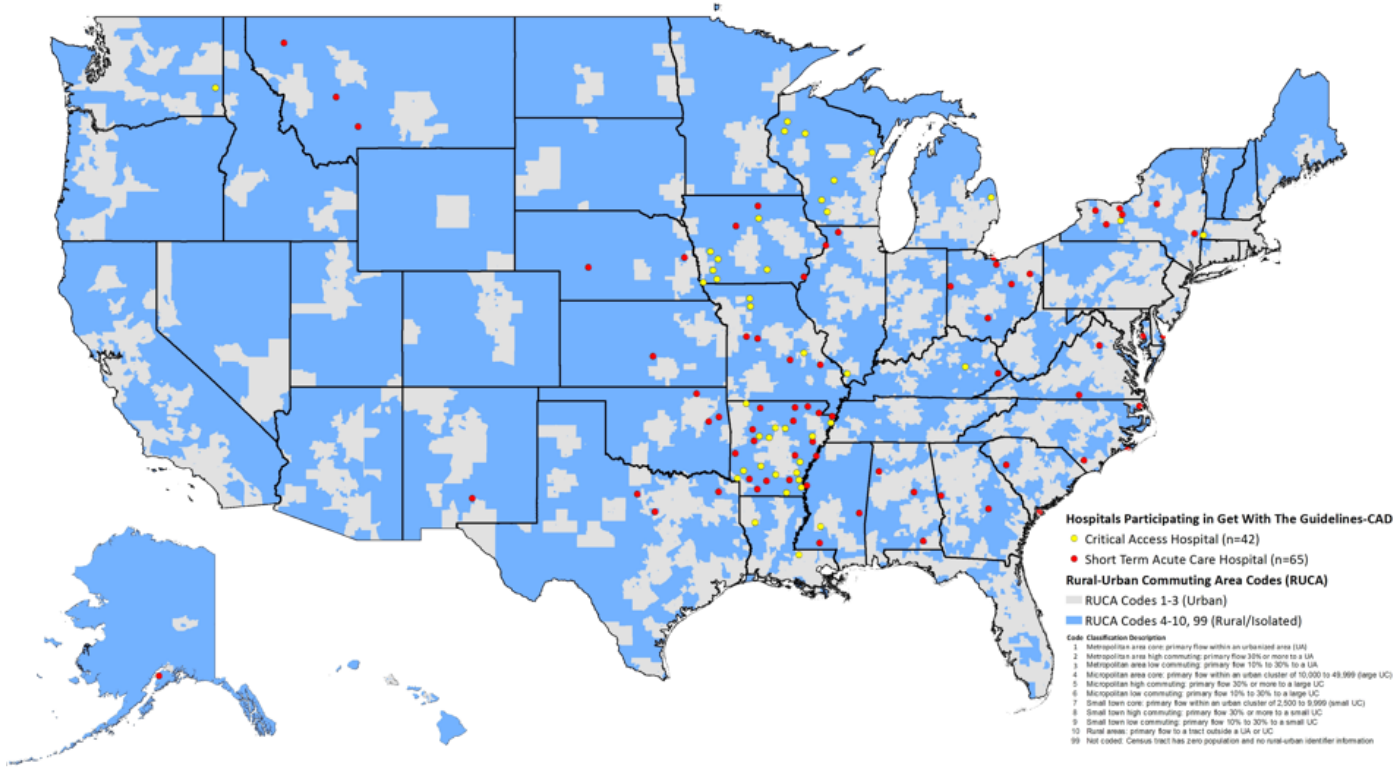
GET WITH THE GUIDELINES® – CORONARY ARTERY DISEASE

Rural Short Term Acute Care and Critical Access Hospitals Participating in Get With The Guidelines-Coronary Artery Disease Rural-Urban Commuting Areas



GWTG-CAD NSTEMI Referring Hospital Focus Measures

ACUTE MEASURES

EARLY CARDIAC TROPONIN MEASUREMENT (WITHIN 6 HOURS OF ARRIVAL)

DOOR TO ECG WITHIN 10 MINUTES

DISCHARGE MEASURES

(APPLY ONLY IF PATIENT IS ADMITTED AT REFERRAL HOSPITAL)

ACE/ARB AT DISCHARGE

SMOKING CESSATION AT DISCHARGE

CARDIAC REHAB REFERRAL AT DISCHARGE

EVALUATION OF LV SYSTOLIC FUNCTION

DUAL ANTIPLATELET THERAPY FOR MEDICALLY MANAGED NSTEMI

HIGH INTENSITY STATIN AT DISCHARGE

GWTG-CAD STEMI Referring Hospital Focus Measures

Goal: Greater than 75% compliance on all measures

ACUTE MEASURES

ASPIRIN AT ARRIVAL

ECG WITHIN 10 MINUTES OF ARRIVAL

ARRIVAL TO TRANSFER TO PCI CENTER WITHIN 45 MINUTES (DOOR IN DOOR OUT)

ARRIVAL TO THROMBOLYTICS WITHIN 30 MINUTES (WHEN APPLICABLE)

DISCHARGE MEASURES

(APPLY ONLY IF PATIENT REMAINS AT REFERRAL HOSPITAL DUE TO CONTRAINDICATION TO TRANSFER OR PCI)

ASPIRIN AT DISCHARGE

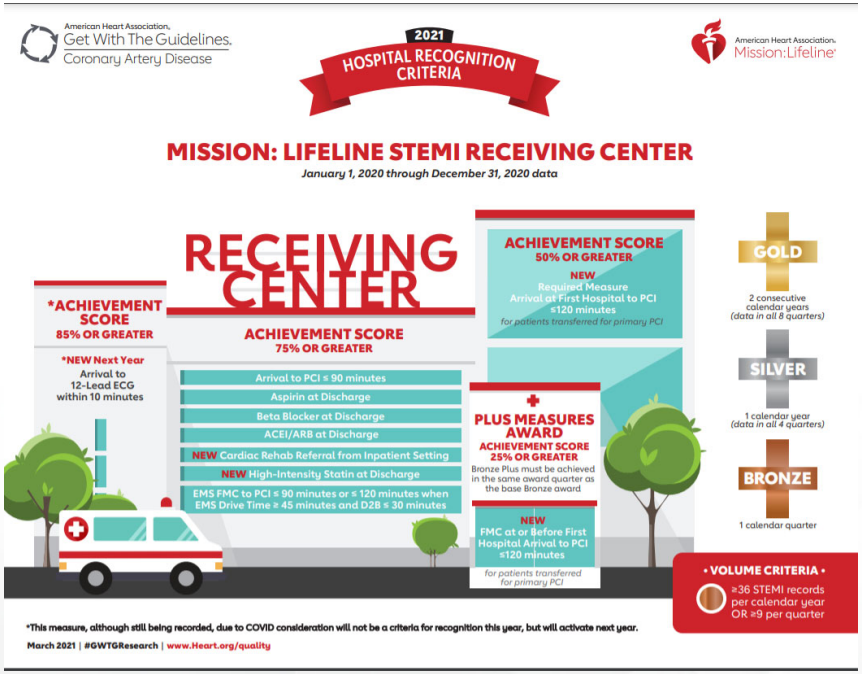
BETA-BLOCKER AT DISCHARGE

HIGH INTENSITY STATIN AT DISCHARGE

ACE OR ARB FOR LVSD AT DISCHARGE

ADULT SMOKING CESSATION ADVICE

2021 Mission: Lifeline Award Recipients



Mission: Lifeline® - STEMI Receiving Center GOLD

- CHI St. Alexius Health Bismarck

Mission: Lifeline® - NSTEMI GOLD

- CHI St. Alexius Health Bismarck

Mission: Lifeline® EMS Recognition Gold Plus

- F-M Ambulance Service Fargo, ND

GWTG CORONARY ARTERY DISEASE (CAD) REGISTRY

GWTG: CAD Registry Login

ENROLLMENT:

- CONTACT KAY.JOHNSON@HEART.ORG
- COMPLETE THE ONLINE UNIFIED PARTICIPATION AGREEMENT (UPA) BY ACCESSING THIS LINK: UNIFIED PARTICIPATION AGREEMENT

ON DEMAND TRAINING

RURAL GET WITH THE GUIDELINES® – CORONARY ARTERY DISEASE DATA ABSTRACTION SERIES

SESSION 1: ACCURATELY ABSTRACTING TRANSFER PATIENT DATA INTO THE REFERRAL FORM

SESSION 2: EFFECTIVELY USING REPORTS TO DRIVE QUALITY IMPROVEMENT IN A NON-PCI CAPABLE HOSPITAL

ND ACRH Performance Metrics

- DOOR TO ECG WITHIN 10 MINUTES
- STEMI POSITIVE ECG TO EMS TRANSPORT ACTIVATION WITHIN 10 MINUTES
- DOOR TO FIBRINOLYTICS (IN FIBRINOLYTIC ELIGIBLE PATIENTS) <30 MINUTES
- DOOR-IN DOOR-OUT TIME (LENGTH OF STAY) < 45 MINUTES
- ASPIRIN GIVEN PRIOR TO TRANSFER
- LOADING DOSE OF PLAVIX OR BRILINTA PRIOR TO TRANSFER
- LOADING DOSE OF WEIGHT-BASED HEPARIN IV
- IF FIBRINOLYTICS GIVEN, INITIATION OF HEPARIN DRIP

References
2013 ACCF/AHA Guideline for the Management of ST-Elevation Myocardial Infarction https://doi.org/10.1161/CIR.0b013e3182742cf6 Circulation. 2013;127:e362–e425
Systems of Care for ST-Segment–Elevation Myocardial Infarction: A Policy Statement From the American Heart Association https://doi.org/10.1161/CIR.0000000000001025 Circulation. 2021;0:CIR.0000000000001025

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QUESTIONS?

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