

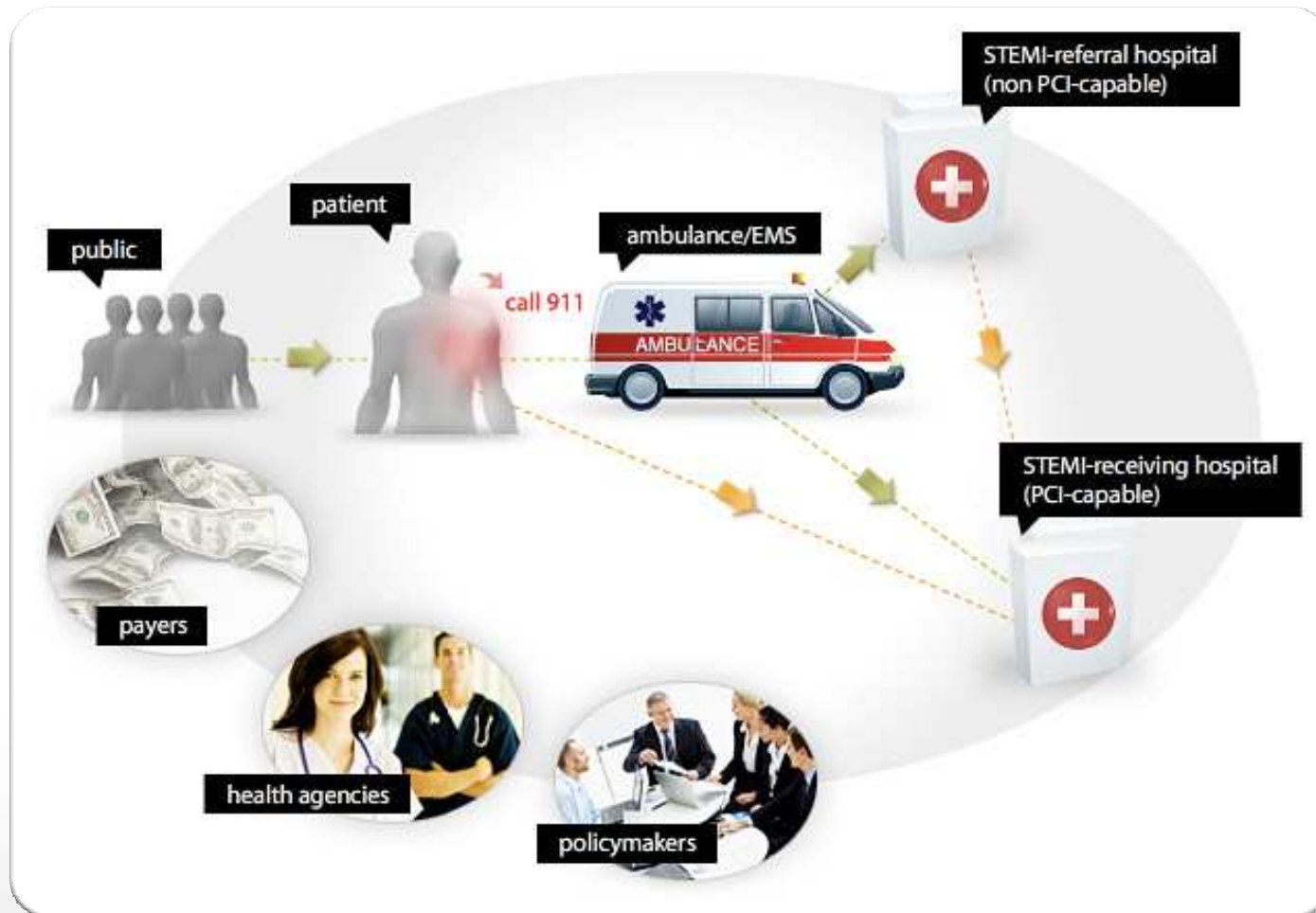
MISSION: Lifeline™



Recommended Criteria for STEMI Systems

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The Ideal STEMI System of Care



Criteria Overview

Non-PCI Hospital/ STEMI Referral Center

- 1. Protocols and standing orders for the identification of STEMI**
- 2. Standardized reperfusion STEMI care pathway to primary PCI**
- 3. Standardized reperfusion STEMI care pathway to fibrinolysis for eligible patients**
- 4. Streamlined, standardized protocol for rapid transfer to a STEMI-Rec Ctr**
- 5. Transport to STEMI-Rec Ctr - 1st door-to-balloon <90 mins**

Non-PCI Hospital/ STEMI Referral Center

- 6. Ongoing QI process, including data measurement and feedback & collect and submit to ML (Bridging Form)**
- 7. Track & improve treatment with ACC/AHA guideline based Class I therapies**
- 8. A multidisciplinary team, including EMS, reviews STEMI data**
 - a. Door-to-first ECG time (goal <10 mins)**
 - b. Proportion of STEMI patients receiving reperfusion therapy**
 - c. Door-to-balloon time for patients transferred to PCI center**
 - i. STEMI Ref Ctr ED door to ED discharge**
 - ii. STEMI Ref Ctr ED door-to-balloon < 90 mins**

Primary PCI Hospital/ STEMI-Receiving Center

- 1. Protocols for triage, diagnosis and Cardiac Cath Lab activation. Single activation call alerts STEMI team. Criteria for EMS activation**
- 2. The STEMI-Receiving Center available 24 hours/7 days a week for primary PCI**
- 3. Cardiac Cath Lab staff & Interventionalist arrives < 30 mins**
- 4. Universal acceptance of STEMI patients (no diversion)**
- 5. Interventional cardiologists meet ACC/AHA criteria & perform at least 11 primary PCI procedures/yr & 75 total PCI procedures/yr**

Primary PCI Hospital/ STEMI-Receiving Center

- 6. STEMI-Receiving Center meets ACC/AHA criteria for volume; performs a minimum of 36 primary PCI & 200 total PCI / year**
- 7. STEMI-Receiving Center participates in the ML data collection tool, ACTION Registry – GWTG™**
- 8. Track and improve treatment with ACC/AHA guideline based Class I therapies**
- 9. Recognized STEMI-Receiving Center liaison/system coordinator and physician champion**

Primary PCI Hospital/ STEMI-Receiving Center

10. Monthly multidisciplinary team meets & evaluates outcomes and QI data. Evaluate on an ongoing basis:

- Door-to-balloon time, non-transfer < 90 mins
- STEMI Ref Ctr ED door-to-balloon time, transfer < 90 mins
- First Medical contact to balloon inflation non-transfer < 90 mins
- First Medical contact to balloon inflation transfer
- Proportion of eligible patients receiving reperfusion therapy
- Proportion of eligible patients with guideline-based Class I therapies

Primary PCI Hospital/ STEMI-Receiving Center

Measures Continued:

- Proportion of patients with field diagnosis of STEMI and activation of the Cardiac Catheterization Laboratory for primary PCI that
 - I. do not undergo acute cath because of misdiagnosis
 - II. undergo acute cath and no elevation in cardiac biomarkers and no revascularization in the first 24 hours
- In-hospital mortality

EMS

1. Standardized algorithm for evaluation and treatment including 12-lead ECG; communication of ECG findings
2. Standardized reperfusion STEMI care pathway to primary PCI if < 90 minutes of first medical contact or fibrinolytic therapy when primary PCI < 90 minutes not possible
3. Prearranged EMS destination protocols for STEMI patients:
 - a. Bypassing non-PCI hospitals and going directly to primary PCI hospitals for anticipated short transport interval
 - b. Emergency transfer by EMS or other agencies to a STEMI-Receiving Center

EMS

3. Prearranged EMS destination protocols for STEMI patients should include:

- c. Air transport (or default to ground transport) with long transport time or fibrinolytic ineligible or cardiogenic shock
- d. Administration of fibrinolytic therapy prehospital or STEMI Ref Ctr for eligible patients with time to primary PCI > 90 minutes
- e. Emergency transfer to a STEMI-Rec Ctr of patients who develop STEMI while in hospital at STEMI Ref Ctr

EMS

4. **Transport to facility meeting ML criteria, goal of first medical contact to balloon inflation < 90 min**
5. **EMS medical director monitors care & meets quarterly with EMS providers and key hospital staff**
6. **Evaluate measures on an ongoing basis:**
 - a. Symptom onset to 911 call
 - b. Time 911 call is first received by primary public safety answering point to vehicle arrival at hospital door
 - c. Time from first medical contact to balloon inflation

EMS

6. Evaluate measures on an ongoing basis:

- d. Time from prehospital ECG to balloon inflation
- e. Proportion of patients with non-traumatic chest pain > 35 years treated by EMS for whom 12-lead ECGs were obtained
- f. Proportion of patients with STEMI treated by EMS for whom 12-lead ECGs were obtained

EMS

6. Evaluate measures on an ongoing basis: (cont)

- g. Proportion with field diagnosis of STEMI and activation of the Cardiac Cath Lab for PCI that
 - i. do not undergo acute cath because of misdiagnosis
 - ii. undergo acute cath & no elevation in cardiac biomarkers & no revascularization in first 24 hours
- h. Proportion with EMS treated VF taken to Cardiac Cath Lab
- i. Survival to hospital discharge of STEMI patients and VF patients

STEMI Systems

- 1. The System should be registered with Mission: Lifeline**
- 2. On-going multidisciplinary team meetings include EMS, STEMI Ref Ctrs, and STEMI-Rec Ctrs to evaluate outcomes and QI data**
- 3. Process for pre-hospital identification and activation, destination protocols and transfer from STEMI Ref Ctr**
- 4. Recognized system coordinator, physician champion, and EMS medical director**
- 5. Each system component meets the appropriate criteria**

Benchmarking

Selected Benchmarks

System

- >75% of EMS treated VF are taken to Cardiac Cath Lab for intended primary PCI

Non-PCI Center

- >75% of STEMI patients have a Door-to-first ECG time < 10 minutes

Sample Benchmarks

→ PCI Center

- >75% of STEMI patients have first Medical contact to balloon inflation \leq 90 minutes, non-transfer

→ EMS

- >75% of patients with non-traumatic chest pain > 35 years are assessed with a 12 lead ECG



www.americanheart.org/missionlifeline