STEMI DESTINATION POLICY

Patient with active symptoms of Acute Coronary Syndrome AND ECG meets STEMI criteria

Significant Trauma?

Yes

Transport to trauma center in accordance with current trauma regulations

No

Severe CHF or Hypotension or Fibrinolysis contraindications?

Yes

Transport to Primary PCI Hospital
See pg. 4 for listing of area PCI Centers

No

Transport interval to PCI hospital <30 minutes?

Yes

No

Contact Direct Medical Oversight (DMO) at nearest facility to determine patient destination

Notes:
1) If unable to maintain airway, transport to the nearest facility
2) If patient sustains cardiac arrest during transport to a PCI center, continue transport to that facility unless there are insufficient resources to manage the arrest or provider is unable to manage the airway.
3) Receiving PCI Center must be notified as early as possible. Notification should be made to Direct Medical Oversight and include the statement “Requesting STEMI pre-activation”
4) Consider patient preference/history if multiple PCI centers are in similar proximity
5) Contraindications to fibrinolysis include:
   a. History of intracranial hemorrhage
   b. Known structural vascular lesion (e.g. AVM)
   c. Known malignant intracranial neoplasm (primary or metastatic)
   d. Ischemic stroke within 3 months (except acute ischemic stroke within 4.5 hours)
   e. Suspected aortic dissection
   f. Active bleeding or bleeding diathesis (excluding menses)
   g. Significant closed head trauma or facial trauma within 3 months
**STEMI ALERT PROCEDURE**

1. Acquire a 12-lead on all patients suspected of Acute Coronary Syndrome (active chest pain or equivalent symptoms such as SOB, nausea, etc.) on first contact.

2. If 12-lead is diagnostic for STEMI and paramedic believes patient is having STEMI:
   - Transmit ECG (if capable) as soon as possible
   - Contact CMED as soon as possible for **STEMI Alert Patch with Direct Medical Oversight (DMO)**. If possible, make the hospital STEMI notification prior to transport. *Waiting to notify the hospital until close to arrival will delay reperfusion.* Notification and transport should be high priorities.

3. When the hospital answers the phone/radio, confirm a physician is on.
   - State: “I have a STEMI Alert and am requesting cath-lab pre-activation.”
   - If you are uncertain the patient is having a STEMI, state: “I have a Possible STEMI Alert.”

4. Describe 12-lead and patient condition. Based on the conversation between the paramedic and the emergency physician and, if applicable, the transmitted 12-Lead, the cath lab will either be activated in advance of arrival, placed on standby or not activated until the physician can make a more detailed assessment at the hospital.

5. Provide appropriate care during transport per protocol. Have defib pads ready in case patient goes into unstable ventricular tachycardia or ventricular fibrillation. Consider disrobing patient if time permits. Have latest 12-lead ready to show ED MD on arrival. Be prepared to transport patient to cardiac cath lab on EMS stretcher if given the go-ahead from ED staff.

6. Please leave copy of PCR and all 12-lead strips at the hospital prior to departing. PCRs should include all usual documentation elements. Some specific elements especially important to STEMI include:
   - Time of symptom onset
   - Time at patient side
   - Time of 1st 12 lead
   - Time ECG was transmitted
   - Time of radio patch/STEMI alert
   - Time of arrival at the hospital
   - All treatment rendered
   - Copies of all 12 leads

7. If applicable to hospital, fill out QA/Patient Follow-up form in ED.
1) STEMI DEFINITION FOR FIELD ACTIVATION / DIVERSION TO PCI

Ongoing ACS symptoms AND ECG of good quality meeting the following criteria:

a) QRS duration < 0.12 second or confirmed right bundle branch block and

b) ST elevation in 2 or more contiguous leads of >1 mm (Limb or lateral leads) or >2 mm (V1-V4) and

c) ***Meets ST Elevation MI Criteria***, ***Acute MI Suspected*** or equivalent prints on 12-lead and paramedic agrees.

If the machine interpretation does not alert to STEMI but the paramedic still strongly believes the ECG shows a STEMI, the paramedic may proceed with the activation request.

**Additional Notes:** Early Notification Saves Lives!

**Computer Interpretation**

Paramedics should not diagnose STEMI based solely on 12-lead computer interpretation. While the interpretation can be used to support your diagnosis, the computer is not infallible. The computer will not read all STEMIs as ***Acute MI Suspected*** and the computer may read ***Acute MI Suspected*** when the ECG is clearly not a STEMI. The computer is less accurate with wide QRS complexes, tachycardic rhythms, anterior MIs and STEMI imposters. When in doubt, transmit and contact DMO.

Paramedics should be familiar with and take into consideration all of the known STEMI imposters, including:

- Hyperkalemia
- Left Bundle Branch Block
- Paced Rhythms
- Early Repolarization
- Pericarditis
- Left Ventricular Hypertrophy (LVH)

Acquire serial 12-leads. All patients with ACS should have at least three 12-leads acquired (ideally at first patient contact, after any ACS treatment, upon beginning transportation and on arrival at ED). STEMIs are often evolving. The STEMI may not appear until the 3rd 12-lead or the STEMI captured on 1st 2-lead may disappear by arrival at the ED. A prehospital 12-lead documenting the transient elevation is critical in these patients.

**Regional PCI Hospitals**

- Baystate Memorial Hospital (Springfield)
- Hartford Hospital
- Hospital of Central Connecticut, New Britain Campus
- Saint Francis Hospital and Medical Center
- University of Connecticut Health Center