UNMH Cardiology ST Elevation MI Activation Guideline

LEVEL 1 Cardiology Alert Activation

Patients who meet BOTH of the following criteria:

- Significant STE as defined below.
- Onset of sustained chest pain </= 12 hours ago, even if not present now.

Significant STE:

- *1 mm elevation in two contiguous inferior leads (2, 3, aVF) or 2 mm in 2 contiguous anterior leads (v1-v6)*
- *STEs may also be demonstrated on right-sided chest leads, posterior leads (v7-v9), in lead aVR.*
- *NOTE: Neither a LBBB by itself nor a computer interpretation of "STEMI" by itself are considered significant.*

Level 1 Cardiology Alert page will be sent to the following (our current STEMI pages):

- EM Providers
- EDRU pagers
- ED Charge Nurse
- Cardiology Cath Attending
- Cardiology Cath Fellow
- Cardiac Cath Lab Nurse
- Cardiac Cath Lab Technicians

LEVEL 2 Cardiology Alert Activation

Patients who meet ANY of the following criteria:

- ST elevation on ECG not enough to call STEMI, but still characteristic of STEMI.
- ST elevation with sustained (not stuttering) chest pain **longer than 12 hours**.
- ST elevation with relative contra-indication to PCI but PCI might be considered to relieve pain (e.g., severe dementia, terminal disease with short life expectancy, inability to give informed consent.)
  Non- diagnostic ECG changes (including LBBB) with continuing symptoms very suspicious for ischemia.

Level 2 Cardiology Alert page will be sent to the following with an expectation of a 5 minute response time from either the Cardiology Fellow or Attending (please include provider call back number in the page to facilitate response):

- EM Providers
- Cardiology Cath Attending
- Cardiology Cath Fellow

- EM Charge Nurse

Special Situations

- ST elevation on pre-hospital monitor (ECG transmitted by Lifenet): If the story is convincing for MI (or no story available) **and** the STE on pre-hospital monitor is diagnostic then call LEVEL 1 alert before arrival. Otherwise ECG stat on arrival. **This is our current practice.**
- ST-elevation on pre-hospital monitor (no Lifenet transmitted ECG): If the story is convincing for MI and the pre-hospital team sees a STEMI on their monitor (but cannot transmit) then call LEVEL 1 alert before arrival. Otherwise ECG stat on arrival. **This is our current practice.**
- ST elevation on initial ECG but subsequent ECG is normal: Call LEVEL 1 alert ("Once a STEMI, always a STEMI")
- Out of hospital cardiac arrest **with** post-arrest showing STEMI: Call LEVEL 1 alert.
- Out of hospital cardiac arrest **without** STEMI on post-arrest ECG: No LEVEL 1 alert. Call cardiology fellow if indicated.
- V-fib cardiac arrest with ROSC, **post-ROSC** ECG does not show STEMI: No STEMI alert, get urgent cardiology consult (Cardiology literature has come to consensus that there is no benefit for urgent catheterization).
- Cardiac arrest with ongoing CPR: No STEMI alert. Consider ECMO.
- Ongoing symptoms suggestive of ischemia without STEMI: Urgent cardiology consult. **This is our current practice**.
- Cardiogenic shock: call interventional attending and get echo BEFORE going to cath lab.
- STEMI on ECG but unable to determine time of onset: This would include patients who are severely demented, sedated, unconscious. No LEVEL 1 or 2 alert. Get urgent cardiology consult.
- SRMC STEMI Alerts. **No change to current practice**. SRMC team alerts Dispatch for an SRMC STEMI and communication occurs between SRMC provider and On-Call Cath Fellow and/or Attending. If the patient is accepted in transfer to UNMH as a Level 1 STEMI, please alert Dispatch **as the patient is leaving** SRMC to activate a Level 1 STEMI for UNMH.

ER Team Communication with Dispatch for All STEMI Alerts (Level 1, Level 2, SRMC): Please tell Dispatch the type of alert (Level 1, Level 2 or SRMC), the current location of the patient (EDRU, Sandia or Manzano Pod, SRMC), and please provide a direct call back number.

References:

O'Gara PT, Kushner FG, Ascheim DD, Casey DE, Chung MK, De Lemos JA, Ettinger SM, Fang JC, Fesmire FM, Franklin BA, Granger CB. 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction: a report of the American College of Cardiology

Foundation/American Heart Association Task Force on Practice Guidelines. Journal of the American college of cardiology. 2013 Jan 29;61(4):e78-140.

Levine GN, Bates ER, Blankenship JC, Bailey SR, Bittl JA, Cercek B, Chambers CE, Ellis SG, Guyton RA, Hollenberg SM, Khot UN. 2015 ACC/AHA/SCAI focused update on primary percutaneous coronary intervention for patients with ST-elevation myocardial infarction: an update of the 2011 ACCF/AHA/SCAI guideline for percutaneous coronary intervention and the 2013 ACCF/AHA guideline for the management of ST-elevation myocardial infarction. Journal of the American College of Cardiology. 2016 Mar 15;67(10):1235-50.

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