

# STEMI WORKFLOW

## MISSION BAY CHILDREN'S EMERGENCY DEPARTMENT

**If concern for STEMI + Head Trauma**

- ZSFG would be optimal destination

### ECG

- Goal ~ obtain within 10 mins of ED arrival
- Serial ECG's every 5 mins

Adult patient with chief complaint concerning for acute coronary syndrome (ACS)

Chest or abdominal pain, SOB, Dizziness, etc.

### STAT ECG

Initiate Chest Pain Order Set

IV, labs, medications & fluids PRN

Simultaneously

Call Peds Access Center  
(3-1611)

Arrange Code 3, ALS transport  
(< 15 min response)

Clinical and ECG concern for STEMI?  
(3 options)

Yes

Uncertain

No

### DEFINITE Activation

MB Charge RN calls STEMI Hotline (502-7864)

Tell Operator to send page  
"STEMI at Mission Bay ED, estimated departure X mins"

Initiate Protocol (below)  
MD - Order medications  
RN - Start procedures

#### Activate CATH LAB (Call STEMI Hotline, 502-STEMI)

##### ED physician orders:

- ASA 325mg
- Heparin 60u/kg bolus  
(max 4000 units)
- Atorvastatin 80 mg PO x1

##### Cath Fellow:

- Obtains consent
- Communicates to ED when  
cath lab is ready
- Will not give plavix if no delay

##### Nursing staff performs:

- 2 large bore IVs
- NS @ TKO
- Stat labs
- Give/document meds
- O2 2L
- Zoll pads
- Defibrillator, O2, IV pump
- Prep bilateral groins
- Patient stickers
- EMS record in chart

### UNCERTAIN Activation

PagerBox "Cardiology Fellow"  
(appears as "On-Call, Fellow--Clinical Fellow, Cardiology")

Type in  
"Concern for STEMI at MB, MRN #. Please call 353-1818"  
or  
pager: 443-7778 (911 for STAT)

PEM attending reviews ECG with Cardiology fellow who  
may activate after consultation.

### No Activation

Transfer to Parnassus ED

# Criteria for STEMI Activation and Consultation



Clinical and ECG concern for  
STEMI?

Uncertain

Definite

## BOX 1: Immediate STEMI Activation

Chest pain or symptoms of ACS **AND**  
ECG with one of the following:

- (1) **NEW ST elevation** at the J point in at least 2 contiguous leads:
  - $\geq 2$  mm in men or  $\geq 1.5$  mm in women in leads  $V_2-V_3$
  - $\geq 1$  mm in other contiguous chest leads or the limb leads
  - In the absence of left ventricular hypertrophy or LBBB
- (2) **NEW posterior MI**
  - ST depression +/- tall R waves in  $\geq 2$  precordial leads ( $V_1-V_4$ ) **AND**
  - Posterior ECG shows ST elevation  $\geq 0.5$  mm in leads V7 or V8
- (3) **LBBB with NEW and concerning** ST changes from prior ECG within 5 yrs:
  - ST depression  $\geq 1$  mm in at least 2 contiguous anterior leads ( $V_1-V_3$ )
  - ST elevation  $\geq 1$  mm in 2 leads in same direction (concordant) as QRS
  - ST changes must be **new since prior ECG with LBBB**
- (4) **VF/VT Arrest** with ST elevation on post arrest ECG and return of pulse

## Activate CATH LAB (Call STEMI Hotline, 502-STMI)

### ED physician orders:

- ASA 325mg
- Heparin 60u/kg bolus (max 4000 units)
- Atorvastatin 80 mg PO x1

### Cath Fellow:

- Obtains consent
- Communicates to ED when cath lab is ready
- Will not give plavix if no delay

### Nursing staff performs:

- 2 large bore IVs
- NS @ TKO
- Stat labs
- Give/document meds
- O2 2L
- Zoll pads
- Defibrillator, O2, IV pump
- Prep bilateral groins
- Patient stickers
- EMS record in chart

## BOX 2: Call Fellow Urgently May Activate Cath lab After Consultation

Chest pain or symptoms of ACS with  
**concerning** but **non-diagnostic** ECG findings:

- (1) **LBBB** with no recent ECG available or with concerning but non-diagnostic changes including ST elevation in anterior leads ( $V_1-V_3$ )
- (2) **LVH** with **new ST changes** compared to prior ECG  
Concerning findings include:
  - Inferior (II, III, aVF) or lateral (I, aVL,  $V_5-V_6$ ) ST elevations
  - ST elevations in  $V_1-V_3$  greater than 25% height of QRS complex
- (3) ECG findings with lower sensitivity/specificity due to:  
**Paced Rhythm, J-Point Elevation, Brugada**
- (4) ST Elevation in **AVR or V1 only** (may indicate left main disease)
- (5) Concerning **T wave changes** (i.e. Wellen's and hyperacute T waves). ECGs should be repeated q5-10 minutes

Patients with **STEMI** and  
**ANY** of the following clinical situations:

- Unclear Code Status** (patient is DNR/DNI or has limited care wishes)
- Out of Hospital Arrest** with prolonged resuscitation time ( $>10$  min)
- s/p **PEA** or **asystolic** arrest with possible underlying ACS
- Concern for **head trauma, intracranial process, or active bleeding**

Fax ECG to on  
call Cardiology  
Fellow  
**1(855)289-7477**

Page Cardiology  
Fellow  
**443-7778**  
(QRST)  
(911 for stat)

Have clinical  
history/relevant  
info ready for  
discussion