



STEMI NEWS

Spring 2008

STEMI System Development... We Are Almost There!

Contra Costa EMS, in collaboration with all our receiving facilities and EMS providers, has been working diligently over the last year to bring up our STEMI System. We are pleased to report that the process of designating STEMI receiving hospitals is well underway and letters of intent to participate have already been received.



The STEMI Receiving Center designation process and criteria are fully described on our EMS website at www.cccems.org.

As letters of intent and applications are received site visits to the facilities will be scheduled. We will be asking each site to include a mock STEMI activation to help us fully appreciate the receiving facilities STEMI system program.

Meetings will soon be scheduled with the RN STEMI program managers for all prospective STEMI Receiving Centers. At these meetings we will further define the data and communication workflows that will be so critical to our ability to evaluate the STEMI system.

On the prehospital side STEMI System training, including 12 lead review, radio contact and patient handoff guidelines and destination decision making has already begun. That training module is available on our website. Training modules for our emergency departments are also planned. EMS will be working with our hospitals to provide these training modules for both for Non-STEMI and STEMI designated facilities. Our goal is to have everyone on the same page when the system goes live in the Fall. At this point the launch date to bring the system up is September 2008. Delays could occur due to contractual requirements but at this time it appears we are on target!



Contra Costa STEMI Center Candidates

As of May 1, 2008 the following facilities have filed a letter of intent to become STEMI Centers:

- Doctor's San Pablo Medical Center
- John Muir Medical Center-Concord
- John Muir Medical Center-Walnut Creek
- Kaiser Medical Center-Walnut Creek
- San Ramon Regional Medical Center



STEMI Destination: How It Will Work....

The STEMI Advisory Committee and EMS looked at STEMI systems across the country and sought the advice of STEMI System experts throughout California to create our STEMI destination policy. The draft policy is available on our website. In our system, STEMI destination is designed to be more flexible than other specialty destination policies and STEMI Receiving Facilities will be considered "equidistant" if the difference between travel times is less than 15 minutes. This concept allows us to meet the national standards of EMS transport times of 30 minutes or less and 9-1-1 to needle/balloon times of less than 90 minutes.



The reason for the flexibility on destination is to get the patient to his/her desired facility and physician. After reviewing our current system and evaluating what we learned from other STEMI systems we believe these differences should not impact the final time to cath lab intervention.

In cases where there is no STEMI Center within 30 minutes, patients should be transported to the closest basic ED facility. Patients retain the right to choose destination in our EMS system....whether it is a STEMI Center or not. Patients without a preference should go to the closest STEMI Center.

Once our STEMI Center designation process is finalized, destination patterns will be more clear. At this time we anticipate at least four STEMI Centers participating in our program and there could be more down the road.



Prehospital 12 lead Program poised for STEMI System Implementation

Bringing up a STEMI System is not a small task. The planning and preparation is enormous. Our prehospital first responders and transport providers have worked hard to fully implement our prehospital 12 lead program and have many responsibilities in making the STEMI system work.

Their hard work has positioned our EMS system to effectively implement this new program and allowed us to understand and better anticipate what will happen when we bring our EMS system up.

STEMI Facts

- Scene times in STEMI are shorter than chest pain overall & average 13-14 minutes.
- There are rare cases of >20 minute scene times and we are working with our prehospital providers to eliminate these cases.
- 3-4% of 12 lead ECG's show STEMI.
- False positives run about 20% where the ECG says ***Acute MI***. A 20% false positive rate is typical for most STEMI systems.
- False positives are most commonly caused by baseline artifact.
- Skin prep remains the single most important issue in getting a good tracing.
- Paced rhythms and some tachycardias can fool the diagnostics of the 12 lead ECG machine but this is rare.
- Many tremendous cases where door to balloon time has been reduced to under 60 minutes.
- Occasional cases of 911 call time to intervention under 90 minutes!



Our prehospital providers are all committed to making the system work and will continue to be actively involved in improving the process as we move forward. In the upcoming STEMI system the EMS partnership between field and hospital will allow us to accomplish even more.



Communication Critical to Upcoming STEMI System Success

A great STEMI system with great outcomes is dependent on effective communication. The research is clear. The sooner you identify a STEMI and communicate that information to the STEMI Center the better the outcome for the patient. That is why our STEMI Radio Report will be based on a communication model called SBAR (Situation, Background, Assessment, Rx/Recap). SBAR is an evidence based safety communication model that was developed by the military and widely used in many industries make sure the right information gets to the right people in the shortest timeframe. It is what STEMI systems are all about.

This model will be used for radio reporting STEMI activations from the field and as part of patient handoff at the STEMI Center. It builds on what people already do and puts urgent patient concerns up front and center. An added plus for our system is that this communication model is being widely used in all of our hospitals throughout the county for patient handoff and critical communications. We are adapting SBAR to make it "work best" for prehospital and are confident it will be effective. The radio report format is below.

Situation	<ul style="list-style-type: none"> •Identify the call as a "STEMI Alert". •Give ETA, patient age & gender. •State ECG findings & any urgent concerns.
Background	<ul style="list-style-type: none"> •Presenting complaints/symptoms. •Past cardiac history including pacemaker.
Assessment	<ul style="list-style-type: none"> •General impression. •Pertinent vital signs & physical exam. •Pain level.
RX & Recap	<ul style="list-style-type: none"> •Prehospital treatment given. •Patient response.

