

STEMI NEWS

April 2010

Performance Criteria	Performance Benchmarks	Contra Costa Quarter 4	Contra Costa 2009 Annual
EMS* to Intervention (PCI) Median Time	<90 minutes (National)	80 minutes	78 minutes
EMS* Scene Median Time	<15 minutes (Local EMS)	15 minutes	14 minutes
911 Call to Intervention (PCI) Median Time	<90 minutes (National)	88 minutes	87 minutes
Door to first PCI Time with Field Activation	<60 minutes (National)	57.5 minutes	53 minutes
Percentage of Time Door to PCI < 90 minutes	> 75% of time (National)	100%	100%

EMS* = First contact with EMS provider

Contra Costa STEMI System Performance 2009 Quarter 4: October 1, 2009 to December 31, 2009 and 2009 Year End

Team STEMI: A Great Year with Room to Grow

Pat Frost RN, MS, PNP, Assistant EMS Director/STEMI System Oversight



This issue we take a moment to reflect on the hard work and effort of Contra Costa TEAM STEMI. Among our accomplishments are the strong coordinated efforts from all our STEMI system stakeholders who have demonstrated accountability and commitment to the creation of the Contra Costa STEMI System. On January 26th, EMS Director, Art Lathrop and EMS Medical Director, Joe Barger, MD, gave a comprehensive summary of our STEMI System accomplishments to the Contra Costa Board of Supervisors. You can see the video/podcast of the Dr. Barger's report online at <http://www.pbtech.org/clients/CCBOS/agenda/ccbos01262010.html>. The STEMI program's success has not gone unnoticed!

Contra Costa EMS would like to recognize the outstanding contributions of our six STEMI designated facilities who consistently demonstrate excellence by exceeding national standards for STEMI System Performance. The rigorous quality management of our system is due to the strong efforts of our Fire EMS, Transport and STEMI Center QI Coordinators and Leadership who collaboratively review every STEMI Alert for opportunities for improvement.

Last but not least is the credit that must be given to our prehospital providers who are the "glue" that makes our STEMI System work 24/7 of every single day . The prehospital provider's job of rapidly identifying, treating and triaging STEMI patients is challenging. Scene and patient factors can easily add time where there is no time to waste. To accomplish the prehospital performance piece, over a thousand prehospital providers are trained to respond to these high-risk/low-frequency patients, positioning them to make the difference every day. Contra Costa patients who enter the STEMI System can be assured that they have every opportunity for a good outcome and an outstanding team of professionals making that happen.

What's next? The STEMI System is exploring new technology, piloting a feasibility study for field 12-lead ECG transmission this year. We are reaching out to our local communities supporting education partnerships building Heart Safe Communities and strengthening our message to call 911 at the first sign of chest pain. Work is already underway to speed STEMI patients who walk-in to Non-STEMI facilities to STEMI Centers for definitive care. **So game-face on TEAM STEMI for a busy 2010!**



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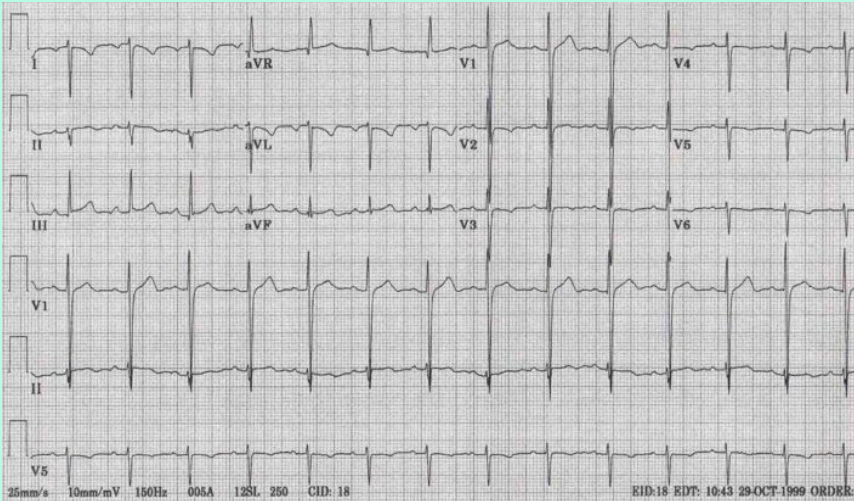
How you can detect lead reversal or the rare condition of Dextrocardia from a 12-lead ECG

Mark Buell, RN, Prehospital Care Coordinator

You should suspect Dextrocardia or lead reversal if there is:

- Global negativity in lead I (negative P wave, QRS complex and T wave)
- An upright QRS complex in lead aVR; and / or
- A negative P wave in lead II

Dextrocardia is much less common than lead reversal. Suspect it if R wave progression is reversed and if you hear heart sounds on the right.



This EKG shows marked right axis deviation and loss of voltage across the precordium. There are also inverted P waves in leads I and aVL. Since there is a loss of voltage across the precordium, this is Dextrocardia.

Case Study: The Hiding STEMI

Not all patients have chest pain with a STEMI. Some patients have complaints unrelated to chest pain. This case demonstrates the hiding STEMI:

Situation: 78 –year-old, 220-lb, African-American female, new onset of upper back pain. Patient called 9-1-1

Background: Constant back pain for the last 12 hours that started while at rest. Patient denied any medical history and is not on any medications. Patient denied any recent falls or trauma.

Assessment: HR 80 NSR, RR 20 and non labored, B/P 188/92, 98 % room air Sat. Pain acute onset for last 12 hours. Described as an 10/10 ache which is non-radiating. A 12 lead was not performed.

RX: Vital Sign and transported code 2.

Hospital / STEMI Center: A 12 lead was completed and patient was found to be having a STEMI. Patient was taken to the cath lab and had a stent placed. The door to balloon time was 83 minutes.

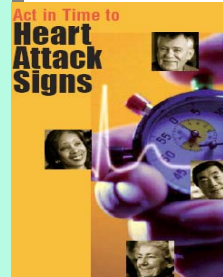
This case shows that the STEMI can present without the classic signs of chest pain.

Great lesson learned!

EMS Update Highlight!

Wireless transmission of the prehospital 12 lead

Contra Costa EMS, along with AMR and John Muir—Concord are preparing to start a pilot study on the feasibility of transmitting a diagnostic quality prehospital 12-lead EKG from the patient’s side to the receiving hospital’s emergency room. While paramedics focus on care for the patient, the transmitted EKG data is securely delivered to where it is needed, linking prehospital, emergency room, and PCI treatment teams.



Public Education

“Act In Time!”

Over 50% of STEMI patients transport themselves to the hospital. Educate your friends, family and community that when chest pain occurs....**Act in Time and call 9-1-1.**

Contra Costa STEMI System Top Prehospital Improvement Goal! Get Rid of Artifact!

STEP I	<ul style="list-style-type: none"> • Check your own performance • Self review • Peer review • ED feedback
STEP II	<ul style="list-style-type: none"> • Review procedures • Get help from your trainers • Youtube.com: review Tim Phelan’s outstanding 12-lead clips
STEP III	<ul style="list-style-type: none"> • Find a peer expert • Seek out “lessons learned” • Screen 12 leads for artifact and repeat as needed
STEP IV	<ul style="list-style-type: none"> • Practice skin prep! • Practice lead placement! • Control for patient movement!