



Contra  
Costa  
County

To: Board of Supervisors  
From: William Walker, M.D., Health Services Director  
Date: January 26, 2010

Subject: Report on Emergency Medical Services ST-Elevation Myocardial Infarction Program

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**RECOMMENDATION(S):**

Accept Emergency Medical Services (EMS) report on the status of the County's ST-Elevation Myocardial Infarction (STEMI) program.

**FISCAL IMPACT:**

None.

**BACKGROUND:**

On August 12, 2008, your Board accepted a report from Contra Costa Health Services EMS on the planned implementation of an ST-elevation Myocardial Infarction, or STEMI, program. A STEMI is the most deadly form of heart attack. STEMI patients are most successfully treated when an invasive cardiac procedure, cardiac catheterization, is performed rapidly following the heart attack. Not all hospitals are staffed and equipped to undertake this procedure. Even in hospitals with cardiac catheterization capability, valuable time may be lost in assembling the cardiac team following diagnosis of the STEMI in the emergency department. In an EMS-based STEMI program, paramedics use specially programmed 12-lead cardiac monitors to identify STEMI patients in the field. An EMS-designated STEMI Receiving Facility is then notified of the patient's pending arrival

☒ APPROVE

☐ OTHER

☒ RECOMMENDATION OF CNTY ADMINISTRATOR

☐ RECOMMENDATION OF BOARD COMMITTEE

Action of Board On: **01/26/2010** ☒ APPROVED AS RECOMMENDED ☐ OTHER

Clerks Notes:

**VOTE OF SUPERVISORS**

AYE: John Gioia, District I  
Supervisor  
Gayle B. Uilkema, District II  
Supervisor  
Mary N. Piepho, District III  
Supervisor  
Susan A. Bonilla, District IV  
Supervisor  
Federal D. Glover, District V  
Supervisor

I hereby certify that this is a true and correct copy of an action taken and entered on the minutes of the Board of Supervisors on the date shown.

ATTESTED: January 26, 2010

David Twa, County Administrator and Clerk of the Board of Supervisors

By: June McHuen, Deputy

Contact: Art Lathrop,  
646-4690

before

## BACKGROUND: (CONT'D)

ambulance transport begins and, in many cases, begins assembling the cardiac team and preparing the catheterization lab.

Contra Costa's STEMI program began in September 2008 with five designated STEMI Receiving Facilities – Doctors Medical Center in San Pablo, John Muir Medical Center – Concord Campus, John Muir Medical Center - Walnut Creek Campus, Kaiser Medical Center in Walnut Creek, and San Ramon Valley Medical Center. Sutter Delta Medical Center in Antioch was added as a STEMI Receiving Center in August 2009. All six STEMI Receiving Centers have entered into agreements with the County to maintain 24-hour, seven day per week coverage for the cardiac catheterization programs and to provide intervention times and outcomes for STEMI patients to EMS.

A national standard for hospital STEMI response times has been 90 minutes from patient arrival to intervention ("door-to-balloon" time). With advance notice by EMS, hospital response times have been found to be improved by 15 to 30 minutes, and faster response times translate into increased survival and better quality of life for survivors. As shown in the attached January 2010 Contra Costa EMS STEMI News, Contra Costa's STEMI Receiving Centers have well exceeded the national standards. Average (median) door-to-intervention (door-to-balloon) time for Contra Costa's STEMI Receiving Centers was just 48 minutes for the last three-month reporting period. Overall time from 9-1-1 call to cardiac intervention averaged a remarkable 85 minutes.

While we can be very proud of the performance of our STEMI program – both the performance of the field personnel and the physicians and staff in the STEMI Receiving Centers – the sad fact remains that over half of patients with serious heart attacks still fail to access the 9-1-1 system. This problem is not unique to Contra Costa. Failure of serious heart attack patients to access 9-1-1 delays treatment at best, and may result in a patient self-transporting to a hospital that does not have cardiac catheterization capability. EMS has taken steps to facilitate rapid transfer of STEMI patients who arrive at non-STEMI hospitals to a STEMI Receiving Center, but greater efforts are needed to educate the public to recognize the signs and symptoms of a heart attack and to call 9 1 1 immediately. Contra Costa EMS is currently working with the American Heart Association to develop a public education campaign to address this issue.

## ATTACHMENTS

G:\C&G DIRECTORY\NON CONTRACTS\Jan 2010 STEMI News - JL.pdf