

Santa Barbara County's STEMI and CAM Systems

A heart attack – otherwise known as a Myocardial Infarction – is due to a blocked artery that supplies blood to the heart muscle. Without a continuous blood supply that portion of heart muscle will begin to die within minutes.

ST Elevation Myocardial Infarction (STEMI) is the most serious type of heart attack, and the goal of treatment is to reopen the blocked artery as quickly as possible, preferably with an angioplasty and stent.

The Santa Barbara County Emergency Medical Services STEMI System is a comprehensive, multidisciplinary program that coordinates the care of all patients with STEMI, whether they call 9-1-1 or arrive to the hospital in some other way.

Our 9-1-1 Dispatchers, First Responders, Paramedic Ambulances and Hospitals are all part of the system of care. All paramedics are able to perform ECGs to identify STEMI, and patients with STEMI are taken to one of our two STEMI receiving Centers (SRC), Santa Barbara Cottage Hospital and Marian Regional Medical Center. Patients with STEMI at our STEMI Referral Hospitals are immediately transferred to an SRC.

Since its inception in 2010, the STEMI system has provided excellent care, and met or exceeded standards for the rapid identification and treatment of these patients.

One of the complications of heart attacks is Sudden Cardiac Arrest, where, due to an electrical instability, the heart stops beating. When that happens, the brain and other organs begin to die within seconds to minutes, and if no treatment is provided the victim will die in less than 10 minutes.

Santa Barbara County began a comprehensive program to address Sudden Cardiac Arrest in 2010. We gathered information in 2011 and 2012, found the areas of needed improvement, and launched the Cardiac Arrest Management (CAM) Program at the end of 2012.

CAM involves dispatch centers, first responders, ambulance personnel and the STEMI Receiving Centers. It includes dispatcher-directed CPR, coordinated scene management, high performance CPR and focused advanced life support measures.

CAM has resulted in the doubling of survival from Sudden Cardiac Arrest. Survival for patients in a heart rhythm that requires defibrillation (electrical shock) has increased from 25% in 2012 to 52% in 2015. This rivals the best performing EMS systems in the world.

CAM has been presented at the European Resuscitation Council's 2015 meeting and at the 2016 Emergency Cardiovascular Care Update, where it won an award for educational excellence.