STEMI

Critical Care System Plan

Prepared By:
Sacramento County Department of Health Services
Emergency Medical Services Agency
2019
This plan was prepared for the
California Emergency Medical Services Authority
July 2018
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Executive Summary

California statute mandates the Emergency Medical Services Authority (EMSA) to adopt necessary regulations to carry out the coordination and integration of all state activities concerning EMS (Health and Safety Code §1797.107).

In addition, State statute allows the EMS Authority to establish guidelines for hospital facilities, in cooperation with affected medical organizations, according to critical care capabilities (Health and Safety Code §1798.150).

As a result of these statutes, the EMS Authority established a multidisciplinary ST-Elevation Myocardial Infarction (STEMI) Care Committee for the development of STEMI System of Care Regulations for California.¹

California’s Statewide STEMI Critical Care System is described in the California Code of Regulations; Title 22, Division 9, Chapter 7.1. These regulations outline the requirements of all components of the STEMI Critical Care System including the Local EMS Agency, pre-hospital providers, and hospitals.

Because data management, quality improvement and the evaluation process all have a vital role in providing high quality care to the cardiac patient; these items have also been identified in the regulations. The overall goal of the regulations is to reduce morbidity and mortality from acute heart disease by improving the delivery of emergency medical care within the communities of California.

The Sacramento County EMS Agency (SCEMSA) has been involved with the regulation development process alongside state and hospital system representatives. Sacramento County already has many of the regulations in place, including pre-hospital care policies to identify STEMI patients, designated STEMI receiving hospitals, and destination policies.

As a requirement of the California Regulations, this document is to serve as a formal written plan for the SCEMSA STEMI Critical Care System.

Sacramento County Emergency Medical Services Agency’s (SCEMSA) STEMI Critical Care System Plan has been written in accordance with Title 22, Division 9, Chapter 7.1 of the California Code of Regulations.

¹ https://emsa.ca.gov/stemi/
STEMI Critical Care System

About 610,000 people die of heart disease in the United States every year. Heart disease is the leading cause of death for both men and women. Coronary heart disease (CHD) is the most common type of heart disease, killing over 370,000 people annually. Every year approximately 735,000 adult Americans have a heart attack. Of these cases, 525,000 are a first-time heart attack and the other 210,000 happen to people who have already had a first-time heart attack.² A heart attack, also known as Myocardial Infarction (MI), is a life-changing event that places heavy burden on patients, families, and caregivers. When a patient is suffering from a cardiac event, timely intervention is critical to reverse the damage; reduce mortality, morbidity, and disability in addition to improving survivor quality of life.

Although many EMS agencies in California have developed STEMI systems of care, there have been no standardized statewide requirements for the development and implementation of a STEMI critical care system until now.

The broad objective for a California STEMI Critical Care System is to improve the care of patients suffering from a life-threatening acute heart attack. More specifically, standardized statewide requirements will lead to the consistent application of standardized care, thus protecting the health and safety of the public.³

Sacramento’s STEMI Critical Care System is a subspecialty care component of the EMS system that was developed by the Sacramento County EMS Agency. This critical care system links pre-hospital and hospital care to deliver treatment to STEMI patients who potentially require immediate medical or surgical intervention.

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² https://www.cdc.gov/heartdisease/facts.htm
STEMI Continuum of Care

Rapid coronary artery reperfusion is the foundation of treatment for acute ST-Elevation myocardial infarction (STEMI) to improve survival. Despite two decades of evidence and seven years since best practice guidelines were introduced, 30-50% of patients fail to have these guidelines applied to their care. Considering the number of Percutaneous Coronary Intervention (PCI)-capable hospitals increased by almost 50% and that 90% of Americans live within 60 minutes of a PCI-capable facility, inadequate access cannot entirely explain these systematic failures. The challenge lies within a highly fragmented health system comprising of approximately 4,750 acute care hospitals and more than 15,000 emergency medical service (EMS) agencies in the United States. The challenge is further exacerbated by structural barriers that hinder coordination between EMS providers and hospitals. Such fragmentation has hindered the development of coordinated treatment plans along and throughout the continuum of care. 4

Improved adherence to the American College of Cardiology and American Heart Association (ACC/AHA) heart failure guidelines translates to improved clinical outcomes in real world heart failure patients. Data shows that with each 10% improvement in ACC/AHA guideline-recommended care there was an associated 13% lower odds of 24-month mortality. 5 STEMI systems of care improve care and support for cardiac patients throughout their health care journey from Pre-Hospital care to In-Hospital care throughout Post-Hospital care. This collaboration and standardization across the continuum of care is paramount to improve outcomes.

The continuum of care is important to caregivers and patients alike. It leads to an improvement of patient satisfaction levels, reduces costs, and improves health. Keeping up the continuum of care is especially significant for specific patient populations such as those patients who are more dependent on the health services, elderly patients, patients suffering from complex medical conditions, mentally vulnerable patients and patients with chronic diseases. Due to the aforementioned examples, continuum of care is particularly beneficial to the cardiac patient population. STEMI systems of care depend on robust collaboration to ensure that the continuum of care is optimally exercised.

4 http://circ.ahajournals.org/content/134/5/365
The Sacramento STEMI continuum of care can be broken down and evaluated at three levels:

- **Pre-Hospital**: Includes the community and Emergency Medical Services in the development of a pre-hospital system that provides rapid identification and transport of suspected STEMI patients to the most appropriate facility.

- **In-Hospital**: Includes the Emergency Department and In-Patient admissions of the hospital in the development of a regional hospital system that provides optimum cardiac treatment for every STEMI.

- **Post-Hospital**: Includes the discharge coordination of patients as well as community efforts to ensure resources are available and accessible to patients. The goal is to improve post-discharge care while providing education and facilitation of home support systems.
Goals Within the Continuum of Care

Within each level of the continuum of care, there are identified goals designed to build safety into the STEMI system of care, ensuring that patients receive the safest and most reliable care across the continuum.

**Pre-Hospital**
- Primary Prevention
- Early Identification & Rapid Response
- Treatment & Transport
- Education & Outreach
- Performance Improvement
- Data Management

**In-Hospital**
- Hospital Services
- Hospital Personnel
- Clinical Capabilities
- Education & Outreach
- Performance Improvement
- Data Management

**Post-Hospital**
- Post Discharge Care
- Secondary and Tertiary Prevention
- Resources and Referrals
- Education & Outreach
- Performance Improvement
- Data Management
Three Areas of Collaboration: A Team Approach

Recognizing that patient outcomes are greatly dependent on the quality of care within each level of care on the continuum, it is critical for Sacramento providers to work in collaboration with a team approach wherever possible. Common themes span across the Pre-Hospital, In-Hospital and Post-Hospital levels that identify opportunities to maximize SCEMSA’s team approach to care of the cardiac patient.

- Education of the community, EMS and other healthcare professionals promote and support an integrated system of care. Interprofessional and interdisciplinary education systems prepare care providers to work collaboratively together as a team. When combined with community education and outreach efforts, the patients have an active role in their personal health and well-being.
- Performance Improvement invariably involves work across multiple systems and disciplines within a practice. Within the healthcare practice continuum, this is particularly applicable as patients have various formal and informal care providers throughout their course of illness and into their discharge disposition.
- Good data can help identify, verify and proactively address issues, measure progress and capitalize on opportunities. When data is gathered, tracked, and analyzed in a credible way over time, it becomes possible to measure progress and success. Policies, procedures, services, and interventions can then be evaluated, modified, and improved.

A team approach from a truly integrated healthcare system will go beyond education, outreach, performance improvement and data management/sharing. SCEMSA’s aim is to create a seamless system which requires EMS professionals and community partners to commit to the same shared objectives and find ways to achieve them together. This team approach from a people-centered EMS system takes advantages of the strengths and resources brought by each organization and provider to protect the health and wellness of individuals and communities.  

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Stakeholders
Sacramento County EMS Agency

Serving 1,458 people per square mile, the Sacramento EMS Agency works diligently to ensure that the communities which are spread over its approximate 994 square-miles, have access to emergency cardiac treatment and services that provide quality care based on best practice guidelines and evidence-based research.

SCEMSA’s specialty care programs are further refined by the agency’s commitment to excellence as defined in the Vision, Mission, Values and Principles:

Vision
To be the exceptional, outcome-focused Emergency Medical Services (EMS) leader that others seek to model.

Mission Statement
To assure the timely delivery of high quality, outcome-based, compassionate, and cost-effective emergency medical services to the people of Sacramento County and to optimize these services through a balance of community collaboration and regulatory leadership.

Values
- Patient centered care
- Dignity and respect
- Honesty and integrity
- Personal and organizational accountability
- Collaboration in our endeavors
- Inclusive decision-making
- Evidence-based change as an avenue to excellence

Principles
- System success is measured in the patient care outcomes of the community we serve.
- Each interaction brings value to us and the EMS system.
- The success of the organization is success for all.
- Our duty is to lead effectively and regulate with consistency.
The Sacramento County EMS Agency is comprised of an EMS Administrator, EMS Medical Director (part-time contracted), EMS Coordinator, three (3) EMS Specialists, one (1) Administrative Service Officer, and one (1) Senior Office Assistant. Although each staff member has a different role in the STEMI Critical Care System, it is through the work that is managed collectively as a group that the STEMI System of care exhibits optimal performance.

http://www.dhs.saccounty.net/PRI/EMS/Pages/EMS-Home.aspx
Sacramento County has a total of eleven pre-hospital receiving hospitals. Nine of these hospitals are within Sacramento County and two hospitals are physically located just outside of the Sacramento County line in Placer County. Seven of the eleven receiving hospitals are currently designated by the Sacramento County EMS Agency as a STEMI Receiving Center.

The California State Regulations define a STEMI Receiving Center (SRC) as a “licensed general acute care facility that meets the minimum hospital STEMI care requirements pursuant to Section 100270.124 and is able to perform Percutaneous Coronary Intervention (PCI)."

Sacramento County EMS Agency has written agreements with hospitals that are designated STEMI receiving centers. To be considered for STEMI receiving center designation, hospitals must hold current Chest Pain Certification by The Joint Commission and fill out a SCEMSA STEMI Center Designation Application packet. The application packet contains an evaluation tool that SCEMSA uses to ensure that the facility meets the requirements to receive STEMI Center Designation.

STEMI Centers must also maintain compliance with Sacramento County EMS Agency designation criteria outlined in Policy document 2526 - STEMI Center Designation.

SCEMSA STEMI Center Designation Application Packet see Attachment APP.
Sacramento County Pre-hospital Providers

The County of Sacramento is comprised of a mix of public and private EMS Advanced Life Support (ALS) providers and Basic Life Support (BLS) First Responders. A combination of ground, air and specialty Critical Care Transport (CCT) are all offered within the county. The community can access emergency transport services via public providers through the 9-1-1 system. ALS first responder ambulance services are also provided by private providers via a seven-digit number.

Once on scene, the first responder and ambulance transport crews coordinate their efforts to rapidly identify, treat and transport STEMI patients to a STEMI Receiving Center. A critical component in the continuum of care is the transfer of 12-Lead ECG findings. Providers electronically transmit a 12-Lead ECG to the receiving hospital and when needed, pre-hospital providers can contact base hospital personnel for On-Line Medical Direction (OLMD). Field crews notify the STEMI Receiving Center of the incoming patient with a “STEMI Alert” radio report in order to allow hospital staff to prepare for expeditious triage and treatment upon patient arrival.

Pre-hospital providers work closely with the hospital staff to ensure that all pertinent information is relayed for a seamless transition within the continuum of care.

Sacramento County EMS Agency has a policy in place to describe the process in which 12-Lead ECG transmission takes place. Policy document #8827; 12-Lead ECG; serves as an advanced life support skill guideline for obtaining, utilizing, and transmitting 12-Lead ECG’s.
The ACS / STEMI Patient

SCEMSA believes that rapid identification, treatment and transport of STEMI patients by emergency medical personnel is a valuable part of optimal care for the victims of cardiac emergencies. Morbidity and mortality rates in STEMI patients have been shown to be directly related to the degree of myocardial damage sustained as a result of vessel occlusion. An important determinant of outcomes for the STEMI patient is timely reperfusion of the coronary arteries. Reperfusion of the affected artery can salvage myocardium that would otherwise become necrotic.

A STEMI diagnosis is based on electrocardiographic changes that show evidence of evolving myocardial injury, as well as the presentation of the patient. When there are electrocardiographic changes and the patient presents with pain or symptoms of suspected cardiac origin, the patient goes directly to the cardiac catheterization laboratory for a possible reperfusion treatment. Therefore, STEMI patients benefit the most from rapid coronary reperfusion therapy.7

It’s imperative that field personnel are well trained and STEMI receiving centers are well prepared for the patient that presents with ST Elevation. Sacramento County EMS Agency has a policy in place to assist field providers in the rapid identification of a patient who may be suffering an ST Elevation MI. Policy document # 8030; Discomfort-Pain of Suspected Cardiac Origin; describes signs and symptoms of a suspected STEMI patient and is a protocol for treatment in Sacramento County.

7 https://www.heart.org/idc/groups/heart-public/@wcm/@mwa/documents/downloadable/ucm_487492.pdf
Destination

In STEMI systems of care, STEMI patients should be transported to the closest, most appropriate facility staffed and equipped to perform immediate percutaneous coronary intervention (PCI) to facilitate reperfusion. STEMI destination policies that allow emergency medical services to bypass non-percutaneous coronary intervention-capable facilities are associated with significantly faster treatment times for patients with ST-Elevation MI. Time to treatment in STEMI's is a critical determinant of patient outcomes. Reducing delays relies on a robust emergency medical system that can transport a patient directly to a percutaneous coronary intervention-capable hospital, even if it means driving past a closer hospital.8

In the rare situation that the closest, most appropriate STEMI center is not available to accept a STEMI patient due to an internal disaster or occupied Cath Lab suites, field providers will transport the patient to the next closest, most appropriate STEMI receiving center.

Sacramento County EMS Agency has a policy in place to assist field providers in determining destination for a STEMI patient. Policy document 5050 - Destination; outlines the destination facilities for patient populations requiring specialty systems of care.

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8 [http://circinterventions.ahajournals.org/content/11/5/e005706](http://circinterventions.ahajournals.org/content/11/5/e005706)
Communication

Studies show that EMS transportation is associated with shorter door-to-balloon time in patients with ST-segment elevation myocardial infarction. In addition to EMS transportation, when pre-hospital crews make notification of an incoming STEMI patient to the receiving hospital, it is again associated with shorter door-to-balloon time.⁹

Early notification of an incoming STEMI patient allows appropriate hospital resources to mobilize prior to patient arrival. Due to the time-sensitive nature of reperfusion on outcomes, the diligent practice of STEMI-alerts from the field is a vital element in the continuum of care spectrum as it is meant to effectively and rapidly communicate the need for expeditious treatment upon patient arrival.

Sacramento County Pre-hospital providers have two ways to make pre-hospital notification. In addition to the 800 MHz radio system available to transporting units in Sacramento, providers have a phone number that is assigned to each receiving hospital for the purposes of receiving radio reports. Either method of communication is reliable and is utilized frequently amongst field crews.

Sacramento County EMS Agency has a policy in place to give direction on administering a notification report to receiving hospitals. Policy document #2525; EMS Radio Report Format, addresses the minimum acceptable information to be communicated and provides a standardized and consistent approach to pre-hospital notifications.

⁹ https://www.ajemjournal.com/article/S0735-6757(16)30234-0/pdf
Inter-Facility Transfers

In Sacramento County, seven out of 11 receiving hospitals are currently designated as STEMI receiving centers. Due to the geographic nature of the STEMI Receiving Centers in relationship to the EMS response boundaries in Sacramento, field providers can transport identified STEMI patients directly to a STEMI receiving center without extended transport times. STEMI patients seen at non-SCRs occasionally require emergent transfer to SRC. For this reason, Sacramento STEMI Receiving Centers have plans developed that include:

- Pre-arranged agreements with STEMI receiving centers for transfer of patients
- Pre-arranged agreements with EMS providers for rapid transport of patients who are eligible for time-sensitive treatments

Sacramento County EMS Agency has a policy in place to provide guidelines for ambulance transport of patients between acute care hospitals. Policy document 5102 – Inter-facility Transfers; outlines transfer agreements, medical control and levels of care to ensure that we are meeting patient needs while providing quality rapid transport to definitive treatment.
Data Collection

STEMI system of care monitoring and evaluation is conducted through SCEMSA Quality Improvement Program.

Retrospective data collection and analysis lie at the heart of quality improvement. Data aids in understanding how well the systems work, identifying potential areas for improvement, setting measurable goals, and monitoring the effectiveness of change. Robust data systems, with the ability to report clinical indicators and performance measures, are a key tool to accomplish Quality Improvement (QI) activities. The goal is to connect data from across the continuum of care from Pre-Hospital to In-Hospital to Post-Hospital disposition in order to optimally evaluate patient outcomes.10

Sacramento County EMS Agency has a policy in place to standardize data elements collected from designated STEMI Receiving Centers and EMS providers to monitor, review, evaluate, and improve the delivery of pre-hospital advanced life support and hospital cardiac care services. Policy document 2527 - STEMI System Data Elements; defines the data elements that are required from Pre-Hospital and Hospital providers on a monthly basis.

STEMI Quality Improvement

Reaching for excellence in any system requires a functional decision-making process among the team of workers and users within that system. Inherent to this process is the need to know how the system is functioning and what to do to fix or improve it. The concept of continuous quality improvement (CQI) particularly in the field of health care relies mainly upon the following fundamental components:

- The availability of reliable and trusted information
- The ability to effectively communicate that information in easy to understand ways
- A standardized approach to reaching decisions and acting on those decisions

It is through SCEMSA’s Continuous Quality Improvement that the gap between performance and expectations narrows. It pushes the standards upward which results in better outcomes. Quality Improvement stresses understanding complex processes, measuring performance using reliable statistical methods, and using that information to build quality into our process.11

Sacramento County EMS Agency has a policy in place to ensure continued high quality of patient care in emergency medical services provided in our community. Policy document 7600 - Quality Improvement Program; establishes a system-wide Quality Improvement Program to continuously monitor, review, evaluate and improve the delivery of Pre-Hospital, In-Hospital and Post-Hospital care of the cardiac patient. The program has active members from all system partners and includes Prospective/Concurrent/Retrospective reviews as well as a feedback system.

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STEMI Care Committee

As the delivery of cardiac care evolves to become more interconnected, coordinating care between Pre-Hospital Providers, Nurses, Physicians, and other disciplines has become increasingly important. In its simplest form, interprofessional collaboration is the practice of approaching patient care from a team-based perspective.

When implementing interprofessional collaboration and learning to work together and respecting one another’s perspectives in healthcare, multiple disciplines can work more effectively as a team to help improve patient outcomes. In addition, it improves the coordination and communication between healthcare professionals and thus in turn, improves the quality and safety of patient care.

Sacramento County EMS Agency has a STEMI Care Committee that has representation from each of the STEMI Receiving Centers as well as members that represent the Pre-Hospital Providers in the area. The STEMI Care Committee meets regularly and is tasked at reviewing performance data, identifying areas in need of improvement, and carrying out and monitoring improvement efforts. For these activities, the committee uses a variety of QI approaches and tools, including Plan, Do, Study, Act (PDSA) cycles, assessments, audits and feedback, benchmarking and best practices research. They provide expertise to address potential quality improvement initiatives within our STEMI system, which contributes, to the development or revision of STEMI related policies, procedures and treatment protocols.

Sacramento County EMS Agency has a policy in place that describes the scope of the role in membership on the STEMI Care Committee. Policy document 2028 - STEMI Care Committee; provides the context in which our interprofessional collaboration across the continuum of care meets quality improvement.
Education and Outreach

According to the Robert Wood Johnson Foundation (RWJF), enhancing interdisciplinary collaboration and coordination in healthcare is imperative. As the delivery of care becomes more complex across a wide range of settings and the need to coordinate care among multiple providers becomes ever more important, developing well-functioning teams becomes a crucial objective throughout the health care system. Health professionals have traditionally operated in separate spheres. Studies show that if they “breakdown the walls of hierarchical silos” and come together as a team, they will improve the safety and quality of patient care.

Collaboration between professions starts with interdisciplinary education, which can break down those walls. Health professionals must begin working together before they actually start working. Interdisciplinary education will lead to more effective communication across disciplines and, ultimately, safer, more affordable, and higher quality care. 12

In addition to interdisciplinary education, there is a vital component of public education and outreach that contributes to the health and wellness of a community. One of the goals identified in Healthy People 2020 is to increase the quality, availability, and effectiveness of educational and community-based programs designed to prevent disease and injury, improve health, and enhance quality of life. Educational and community-based programs play a key role in:

- Preventing disease and injury
- Improving health
- Enhancing quality of life

Health status and related health behaviors are determined by influence at multiple levels. Because significant and dynamic interrelationships exist among these different levels of health determinants, educational and community-based programs are most likely to succeed in improving health and wellness when they address influences at all levels and in a variety of environments/settings. 13

Cardiac care public education and outreach will continue to contribute to the improvement of health outcomes in the United States and is a component of the Sacramento STEMI Critical Care System. 14

Understanding the critical role that cardiac education and outreach has in healthcare, Sacramento County EMS Agency has developed a reporting process for STEMI Centers as well as Pre-Hospital Providers to identify education and outreach efforts within our community. The reporting matrix includes four elements of education and outreach.

Internal Education is driven towards “in-house” educational efforts on STEMI care. This would include mandatory staff training, in-service training and any other educational opportunities that are offered only to the staff members within that STEMI center system.

External Education is geared towards “external” participants which may include sponsoring a conference or speaking at a conference, STEMI education for non-STEMI receiving center hospitals, Lunch and Learn activities that are open to outside facilities and similar events.

EMS Education is education that is designed specifically for the EMS providers. This may include station visits by STEMI teams to review cardiac care and assessments or on-line learning management systems created to give a lecture with pre and post quizzes to evaluate learning. In addition, it may include run reviews or protocol updates.

Public Education and Outreach is specific to bringing cardiac and heart health education to our community members. This area of education provides the greatest opportunity for the EMS Agency to partner with both pre-hospital providers and our STEMI Receiving Centers to deliver a comprehensive message of heart and vascular health to the members of our community.

Sacramento County EMS Agency has started the collection of STEMI education and outreach efforts of our partners. This information is presented in the STEMI Education and Outreach table.

This document can be found as Attachment A.
Neighboring EMS Agencies

Due to the complex nature of an EMS System that has multiple agencies which provide local operational oversight, it is imperative to have processes in place in which patients’ care is uninterrupted despite crossing county line. A Memorandum of Understanding (MOU) is beneficial to alleviate the fragmentation, improve coordination of services and enhance quality of care.

MOU’s can be tailored to the specific needs of each agency and ensure in advance that there is seamless access and transition to/from out of county destinations.

Sacramento County EMS Agency has established STEMI Critical Care System MOU’s with each of the Local EMS Agencies who have a bordering county line to Sacramento County.

Individual Memorandums of Understanding can be found in attachments B through H.
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Attachment APP- STEMI Center Application for Designation
Sacramento County EMS Agency
STE MI Receiving Center (SRC)
Application Packet

Contents:
Application for Designation Instructions
Application
Designation Criteria Application
Sacramento County EMS Agency STEMI Receiving Center (SRC)
Application for Designation Instructions

Thank you for your interest in applying to be designated as a STEMI Receiving Center for Sacramento County. Please carefully review the application instructions prior to submitting your application packet.

As part of our STEMI Critical Care System in Sacramento County, we offer hospitals a designation process which identifies the hospital as a “STEMI receiving center”. A STEMI receiving center is a hospital that receives prehospital patients from Sacramento County and has Chest Pain Certification by The Joint Commission (TJC). Patient meeting STEMI alert criteria will be appropriately triaged to the appropriate STEMI-receiving center.

The process for application as a STEMI Receiving Center in Sacramento County includes:

- Completion of the STEMI Receiving Center Designation Application (attached)
- Current documentation of Chest Pain Certification by The Joint Commission (TJC)
- Agreement to abide by the Sacramento County STEMI Designation Policy
- Documentation of all items listed as required in the STEMI Designation Policy
- Signed contracts that define roles and responsibilities of stakeholders, confidentiality, data access and management as well as the CQI processes
- Informational site visits by EMS Agency staff
- Fees of $ (TBD) annually per designated STEMI center for supporting STEMI system oversight, data management, and community educational efforts. Fees will be collected by Sacramento County EMS with the first installment due with signed contract.

A completed application including all supporting documents can be submitted via mail to:

Sacramento County EMS Agency
9616 Micron Ave, Suite 960
Sacramento, California 95827
916.875.9753

Or can be emailed to: SCEMSAINFO@saccounty.net
### STEMI REceiving CENTER DESIGNATION APPLICATION

Please check one:
- [ ] Initial Designation $TBD
- [ ] Re-Designation $TBD

Application processing requires a minimum of **30 business days** once all materials are received. Complete application in ink.

**Hospital Name:**

**Physical Address:**

<table>
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<th>City</th>
<th>State</th>
<th>Zip</th>
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**Mailing Address:**

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**Phone:**

**Completion Date:**

**Name and Credentials of Person Completing the Form:**

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<tr>
<th>E-mail</th>
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**Facility STEMI Program Medical Director Name:**

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**Email:**

**Facility STEMI Program Coordinator Name:**

<table>
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<th>Phone</th>
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</table>

**Email:**

Is your facility currently have Chest Pain Certification by The Joint Commission?:  
- [ ] Yes  
- [ ] No  
  - If yes, what was the most recent date of certification? _____________________________
  - Please list the expected date of your next Joint Commission evaluation for Cardiac Care Center re-certification:________________________

If no, are you in the process of applying or planning to apply for certification?  
- [ ] Yes  
- [ ] No  
  - If yes, when do you anticipate certification completion? _____________________________

- [ ] EMS Site Visit to Primary STEMI Center Applicant:  
  - **Staff initials** ________ **Date of visit** ______
- [ ] Written Contract in place:  
  - **Staff initials** ________ **Expiration** ______
- [ ] Annual Designation Fee $ **TBD**:  
  - **Staff initials** ________
Attachment A- Education and Outreach
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<td>03.25.18</td>
<td>0800-1600</td>
<td></td>
<td></td>
<td>15</td>
<td>Overview of risk factors, Signs and Symptoms, diagnostics, initial treatment, Interventions, education on lifestyle modification, medications and treatments and discharge needs.; Roberta Stewart, RN Patty Garrity, RN Cindy Myas,RN</td>
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<td></td>
<td></td>
<td>GSSA Annual Skills Day Testing</td>
<td>RN</td>
<td>April-June</td>
<td></td>
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<td>All RN’s</td>
<td>Annual modules and testing to show competency in the care of patients with chest pain/ACS. Additional modules for Atrial Fibrillation. Includes review of ACS signs/symptoms, risk factors, and treatment. Also includes module for dysrhythmia recognition and testing; Online Modules</td>
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<td>MGH Monthly Skills Day</td>
<td>RN, ED Staff</td>
<td>Monthly</td>
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<td>All clinical staff attend a Skills Day Lab during their month of hire. Stations include EKG, LVAD, and Pacemakers; Hospital Educators and Managers</td>
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<td>Chest Pain/STEMI lecture</td>
<td>New Graduate RN’s</td>
<td>Monthly</td>
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<td>5-10 Montly</td>
<td>Risk factors/diagnostics/treatment, hospital policies; Rachel Cannariato, RN</td>
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<td></td>
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<td>12 Lead EKG/STEMI Skills Day Station</td>
<td>Mandatory for all RNs/ED Techs/CNAs</td>
<td>Monthly</td>
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<td></td>
<td>50+ Montly</td>
<td>Skills station in EKG acquisition for all, RNs have additional rhythm recognition station; Sarah Mee, RN</td>
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<td></td>
<td></td>
<td>Current Strategies in ACS Care</td>
<td>RN</td>
<td>10.25.18</td>
<td>0800-1600</td>
<td></td>
<td></td>
<td>15</td>
<td>Overview of risk factors, Signs and Symptoms, diagnostics, initial treatment, Interventions, education on lifestyle modification, medications and treatments and discharge needs.; Roberta Stewart, RN Patty Garrity, RN Cindy Myas,RN</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Date</td>
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<td>Educators</td>
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<tr>
<td>Heart Failure &amp; LVAD</td>
<td>Dignity Health Carmichael MD's</td>
<td>04.05.18</td>
<td></td>
<td>Carmichael Dignity</td>
<td>30 Education on care of the Heart Failure and LVAD patient; Dr. Janmohamed</td>
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<tr>
<td>ESI Training</td>
<td>ED RN's Multiple dates 2017/2018</td>
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<td>MSJ</td>
<td>146 Training to the ESI Triage 5 level system. Discuss the signs and symptoms of CP, risk factors, and how to prioritize treatment; Susan Orozco, RN ED Educator</td>
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<td>Skills Day</td>
<td>ED RN's ED Staff Multiple dates 2017/2018</td>
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<td>MSJ</td>
<td>150 ACS pathophysiology, tests, treatments, care plans for patients; Susan Orozco, RN ED Educator</td>
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<tr>
<td>Critical Care Orientation</td>
<td>ED Nurses Multiple dates 2017/2018</td>
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<td>MSJ</td>
<td>12 In depth pathophysiology of cardiac events, heart failure, and arrhythmias. Treatment, medications, and cardiac alert process reviewed; Susan Orozco, RN ED Educator</td>
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<tr>
<td>Advances in CPR</td>
<td>RN MD 02.23.18 1230-1330</td>
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<td>MSJ</td>
<td>100 Key changes in AHA guidelines to CPR and emergency cardiovascular care were made in 2017. This presentation addresses new guidelines for cardiac resuscitation, chest compression only CPR, and immediate coronary angiography in the post arrest patient; Dr Karl Kern, University of Arizona</td>
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<tr>
<td>External</td>
<td>Heart Failure &amp; LVAD Rideout MD's 02.27.18</td>
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<td>Rideout, Yuba City</td>
<td>10 Education on care of the Heart Failure and LVAD patient; Dr. Janmohamed</td>
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<tr>
<td>Heart Failure &amp; LVAD</td>
<td>Renown MD’s 03.02.18</td>
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<td>Renown, Reno</td>
<td>5 Education on care of the Heart Failure and LVAD patient; Drs. Janmohamed &amp; Slachman</td>
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<td>EMS</td>
<td>EMS Newsletter Monthly</td>
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<td>Regional</td>
<td>200+ Monthly newsletter that will address an individual topic related to the cardiovascular patient; Collaboration of specialist/subject matter experts based on topic</td>
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<td>Event Description</td>
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<td>Audience</td>
<td>Attendance</td>
<td>Presenter(s)</td>
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<td>EMS Appreciation Activities</td>
<td>EMS</td>
<td>05.22.18</td>
<td>MGH, Methodist, Woodland EDs</td>
<td>220</td>
<td>Education provided to EMS. Topics included updates on HF, LVAD, A-fib, Chest Pain Clinic, Women and Heart Disease; DHHVI Staff &amp; ED Staff</td>
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<tr>
<td>Run Review</td>
<td>EMS ED RN</td>
<td>06.24.18</td>
<td>MSJ</td>
<td>28</td>
<td>Cardiac Review</td>
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<tr>
<td>Run Review</td>
<td>EMS ED RN</td>
<td>12.06.18</td>
<td>MSJ</td>
<td>14</td>
<td>Cardiac cases reviewed and Impella device; Scott Baron MD</td>
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<tr>
<td>National Wear Red Day</td>
<td>Dignity Health Employees</td>
<td>02.02.18</td>
<td>Rancho Cordova</td>
<td>10</td>
<td>Women’s and Heart Disease; Tracy Toms</td>
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<tr>
<td>The best things in life never miss a beat - Hands only CPR</td>
<td>Public</td>
<td>02.03.18</td>
<td>Sacramento Hilton Hotel</td>
<td>175</td>
<td>Education provided on optimal heart health, history of CPR and hands only CPR; Dr. Munir Janmohamed, Morgan Stonefelt (AHA), Joyce Higley, Roberta Stewart</td>
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<tr>
<td>The best things in life never miss a beat - Hands only CPR</td>
<td>Public</td>
<td>02.08.18</td>
<td>Davis</td>
<td>140</td>
<td>Education provided on optimal heart health, history of CPR and hands only CPR; Dr. Christopher Swales, Dr. Sarada Mylavarapu, Dr Kathy Glatter, Morgan Stonefelt (AHA), Doris Frazier</td>
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<tr>
<td>Faith Community Support Group - Hands Only CPR presentation</td>
<td>Public</td>
<td>02.28.18</td>
<td>Carmichael</td>
<td>10</td>
<td>Education on hands only CPR; Tracy Toms</td>
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<td>At the Heart of A-Fib</td>
<td>Public: Seniors</td>
<td>04.04.18</td>
<td>Sun City Lincoln Hills</td>
<td>145</td>
<td>Education on the latest a-fib research and treatment options; Dr. Arash Aryana, Nathanael White, Doris Frazier</td>
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<td>Working Together to Prevent Heart Disease</td>
<td>Cal Trans State Employees</td>
<td>04.26.18</td>
<td>Folsom</td>
<td>15</td>
<td>Education on cardiovascular disease, management, prevention, women and heart disease, and advanced heart disease options; Joyce Higley</td>
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<td>Health &amp; Wellness Carnival</td>
<td>Elementary</td>
<td>04.28.18</td>
<td>Earl Warren Elementary School, Sacramento</td>
<td>200</td>
<td>Provided hands only CPR demonstration/practice and prevention of heart disease; DHHVI, Neuro Institute, Cancer Institute, CLC</td>
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<td>Event</td>
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<td>Heart and Stroke Walk</td>
<td>Public</td>
<td>09.27.18</td>
<td>State Capital South Steps</td>
<td>TBD</td>
<td>Will provide a village theme with education and risk assessments; DHHVI</td>
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<td>Heart and Stroke Walk</td>
<td>Public</td>
<td>09.29.18</td>
<td>William Land Park, Sacramento</td>
<td>TBD</td>
<td>Will provide education on heart disease in women, prevention and hands only CPR demonstration/practice; DHHVI</td>
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<td>Hands Only CPR</td>
<td>Public</td>
<td>11.01.18</td>
<td>Elk Grove Falls Event Center</td>
<td>TBD</td>
<td>Education on hands only CPR; DHHVI</td>
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<tr>
<td>Hands Only CPR</td>
<td>Public</td>
<td>11.03.18</td>
<td>Lake Natoma Inn Folsom</td>
<td>TBD</td>
<td>Education on hands only CPR; DHHVI</td>
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<td>Sutter Health</td>
<td>Internal</td>
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<td>Sutter Health</td>
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<td>ICU Conference 2018</td>
<td>RN MD</td>
<td>02.07.18</td>
<td>SRMC Conference Rooms A and B</td>
<td>0800-1600</td>
<td>Discuss current management of patient with Therapeutic Hypothermia therapy. Describe at least two goals of palliative care. Describe at least two clinical situations in which the provider needs to be notified post PCI Review current organ donation patient management processes at SRMC. Discuss at least current care strategies for complex ICU patients. Describe current disaster management plan at SRMC.; Dr. Bellucci – Therapeutic Hypothermia Dr. Walker – Palliative Care Dr. Sepehrdad – Percutaneous Coronary Intervention (PCI) Dr. Mohammed – Interesting ICU Case Studies Sierra Donor Services – Organ Donation Management and T4 Protocol Erik Angle RN, MICN, MEP, KJ6YJD – Disaster Management</td>
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<td>EMS-a Palooza</td>
<td>RN MD EDT</td>
<td>12.03.18</td>
<td>TBD</td>
<td>80</td>
<td>8 hour educational opportunity provided to all pre-hospital and hospital staff. 6-7 content expert lecturers will present information on a variety of</td>
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<td>Organization</td>
<td>Category</td>
<td>Event Name</td>
<td>Participants</td>
<td>Date</td>
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<td>Capacity</td>
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<td>EMS</td>
<td>Cath Lab Staff</td>
<td>EMS-a Palooza</td>
<td>EMS</td>
<td>12.03.18</td>
<td>TBD</td>
<td>80</td>
<td>8 hour educational opportunity provided to all pre-hospital and hospital staff. 6-7 content expert lecturers will present information on a variety of topics. Topics will include one lecture on cardiac/STEMI and one lecture on stroke care.</td>
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<td>Public Education / Outreach</td>
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<td>UCD</td>
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<td>Kaiser</td>
<td>Public Education / Outreach</td>
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Attachment B- MOU: Yolo County EMS Agency
Attachment C - MOU: Sierra Sacramento Valley EMS Agency
Attachment D - MOU: El Dorado County EMS Agency
Attachment E - MOU: San Joaquin County EMS Agency
Attachment F - MOU: Solano County EMS Agency
Attachment G - MOU: Contra Costa EMS Agency
Attachment H - MOU: Mountain Valley EMS Agency