### **Monterey County EMS System Policy**



Policy Number: 5150 Effective Date: 7/1/2023 Review Date: 6/30/2026

### STEMI RECEIVING CENTERS

#### I. PURPOSE

To define requirements for designation as a Monterey County ST-Elevation Myocardial Infarction (STEMI) Receiving Center (SRC).

#### II. POLICY

- A. The Monterey County EMS Agency Medical Director may designate a hospital as a SRC if all of the following requirements are met:
  - 1. The hospital shall have established protocols for triage, diagnosis, and cardiac catheterization laboratory (Cath lab) activation following field notification.
  - 2. Once a hospital is notified that a possible STEMI patient is en route to their facility and an ECG is received from the field and confirmed to be a STEMI by the STEMI Receiving Center, the SRC shall activate their internal STEMI response.
  - 3. The hospital shall have a single call activation system to activate the Cardiac Catheterization Team directly.
  - 4. Written protocols shall be in place for the identification of STEMI patients.
    - a. At a minimum, these written protocols shall be applicable in the intensive care unit/coronary care unit, Cath lab, and the emergency department.
  - 5. The hospital shall be available for treatment of STEMI patients twenty-four (24) hours per day, seven (7) days per week, three hundred and sixty-five (365) days per year.
  - 6. The hospital shall have a process in place for the treatment and triage of simultaneously arriving STEMI patients.
  - 7. The hospital shall maintain STEMI team and Cardiac Catheterization Team call rosters.
  - 8. The Cardiac Catheterization Team shall be immediately available.
  - 9. The hospital shall agree to accept all STEMI patients except in situations of internal disaster.
  - 10. SRCs shall comply with the requirement for a minimum volume of procedures for designation required by the Monterey County EMS Agency
    - a. Cardiac catheterization laboratory team and interventional cardiologists shall meet or exceed current ACC/AHA/SCAI standards for competence regarding the number of procedures performed annually.
  - 11. The hospital shall have and maintain the following personnel:

#### a. SRC Medical Director

1) The STEMI Medical Director shall be a physician certified by the American Board of Internal Medicine (ABIM) with current ABIM sub-specialty certification in Cardiovascular Disease and Interventional Cardiology who will ensure compliance with these SRC standards and who is responsible for the STEMI program, performance improvement, and patient safety programs related to the STEMI critical care system.

### b. SRC Program Manager

- The SRC Program Manager shall have experience in Emergency Medicine or Cardiovascular Care, who shall assist the SRC Medical Director to ensure compliance with these SRC standards and who is responsible for monitoring, coordinating, and evaluating the STEMI program.
- c. Intra-aortic balloon pump technician(s)
- d. Appropriate Cardiac catheterization nursing and support personnel
- e. Physician Consultants
  - 1) Cardiology interventionalist
  - 2) CV Surgeon
- f. Clinical Capabilities
  - 1) Performance (timeliness) and outcome measures will be assessed initially in the EMS survey process and will be monitored closely on an ongoing basis.
- 11. The hospital shall have job descriptions and organizational structure clarifying the relationship between the STEMI medical director, STEMI program manager, and the STEMI team.
- 12. A STEMI Receiving Center without cardiac surgery capability on-site shall have a written transfer plan and agreements for transfer to a facility with cardiovascular surgery capability.

#### III. QUALITY/PERFORMANCE IMPROVEMENT

- A. The Monterey County EMS Agency shall be responsible for ongoing performance evaluation and quality improvement of the STEMI critical care system.
- B. The SRC shall participate in the Monterey County EMS Agency quality improvement processes related to the STEMI critical care system.
  - 1. Participation in Monterey County EMS STEMI QI Committee as described in Monterey County EMS Policy #1020, EMS Advisory Committees.
  - 2. Meetings to be held on a quarterly basis initially.

- 3. Written internal quality improvement plan/ program description for STEMI patients shall include appropriate evidence of an internal review process that includes:
  - a. Death rate (within 30 days, related to procedure regardless of mechanism)
  - b. Emergency CABG rate (result of procedure failure or complication)
  - c. Vascular complications (access site, transfusion, or operative intervention required)
  - d. Cerebrovascular accident rate (peri-procedure)
  - e. Post-procedure nephrotoxicity (increase in serum creatinine of >0.5)
  - f. Sentinel event, system and organization issue review and resolution processes.
- 4. Participation in Prehospital STEMI related educational activities

#### IV. APPLICATION PROCESS

- A. A hospital requesting designation as a SRC shall apply to the Monterey County EMS Agency following the application process outlined in this policy. The application (see attached) shall be submitted at least three (3) months prior to the desired date of implementation.
- B. Submit applicable designation fees to cover initial and ongoing Monterey County EMS Agency costs to support the STEMI program.
  - 1. STEMI Receiving Center Application Fee: Hospitals applying for STEMI Receiving Center designation will be assessed the STEMI Receiving Center Application Fee. This fee will cover the costs associated with the designation process. These costs may include contract costs for plan development, Requests for Proposal development, review of proposals, out of area site team costs, legal reviews, and agency costs in excess of the costs associated with the day-to-day STEMI system regulation. Fees paid that are in excess of actual costs will be returned to applicants.
  - 2. STEMI Receiving Center Designation Fee: The Monterey County Board of Supervisors will establish an annual STEMI Receiving Center Designation Fee. This fee covers the cost of monitoring the operation of the STEMI System in compliance with State of California EMS Authority regulations and Monterey County EMS Agency policies and protocols. The fee will be based on the time requirements of the STEMI System Medical Director, STEMI System Coordinator, and other staff activity dedicated to STEMI issues as well as associated overhead and program support costs.
  - 3. Monterey County EMS Agency will provide the designated STEMI Receiving Center(s) written notice of any increase in the designated fee at least 180 days (6 months) prior to the effective date of the increase with an explanation for the increase and the basis on which it was calculated.

#### V. DESIGNATION CRITERIA

- A. Hospitals wishing to be designated as a STEMI Receiving Center by the Monterey County EMS Agency shall meet the following requirements:
  - 1. Current California licensure as an acute care facility providing Basic or Comprehensive Emergency Medical Services.
  - 2. Obtain and maintain accreditation as a STEMI Receiving Center from the American Heart Association, Mission: Lifeline program or equivalent.
  - 3. Establish transfer agreement(s) between the applicant SRC hospital and each STEMI Referral Hospital (SRH) in Monterey County whereby applicant SRC agrees to immediately and rapidly accept the transfer of a STEMI patient from the transferring SRH upon notification of STEMI ALERT and request by the SRH-affiliated physician.
  - 4. Submit the Application for STEMI Receiving Center Designation, the STEMI Center Designation Criteria Evaluation Tool, and all required supporting documentation to the EMS Agency.
  - 5. Enter into and maintain a written STEMI Receiving Center agreement with the Monterey County EMS Agency that defines the roles and responsibilities of the STEMI Receiving Center and the EMS Agency relative to the care of STEMI patients.
  - 6. Develop and maintain appropriate internal (hospital) policies addressing the following:
    - a. Cardiac interventionalist activation with the on-call cardiologist immediately available.
    - b. Cardiac catheterization team activation with team arrival within thirty minutes of activation.
    - c. Activation of the cardiac interventionalist and catheterization team upon notice that a patient with STEMI is being transported to their facility.
    - d. Contingency plans for personnel and equipment to include activation of a second cardiac interventionalist and catheterization lab team should this be needed.
    - e. Coronary angiography.
    - f. PCI and use of fibrinolytics.
    - g. Interfacility transfer STEMI policies/protocols.
    - h. Collection of data and a process for sharing requested data with the Monterey County EMS Agency and the STEMI QI Committee.
  - 7. Initiate and maintain a hospital STEMI QI committee.
  - 8. A needs assessment documenting the needs of the community for a designated STEMI Receiving Center.

- B. The Monterey County EMS Agency will designate a hospital as a STEMI Receiving Center if all of the requirements of this policy are met *and* if a needs assessment demonstrates a need for an additional STEMI Receiving Center.
- C. STEMI Receiving Center designation period will coincide with the period covered in the written agreement between the STEMI Receiving Center and the Monterey County EMS Agency.

#### VI. REDESIGNATION

- A. A SRC may be redesignated following a satisfactory review in accordance with current standards and the terms of the written agreement.
- B. Redesignation of a SRC shall require submission of an Application for STEMI Receiving Center Designation, the STEMI Center Designation Criteria Evaluation Tool, and updated supporting documentation to the EMS Agency.
- C. The SRC must be current with the submission of all data required by the Monterey County EMS Agency and the State of California EMS Authority.
- D. SRCs shall respond in writing regarding program compliance.
- E. On-site SRC visits for redesignation shall occur every three years, in coordination with the terms of the STEMI Receiving Center agreement with the Monterey County EMS Agency. The SRC shall receive written notification of the site visit from the Monterey County EMS Agency.
- F. SRCs shall notify the Monterey County EMS Agency by telephone, followed by a letter or email within 48 hours, of changes in program compliance or performance.

### VII. DATA COLLECTION, SUBMISSION, AND ANALYSIS

- A. Participation in National Cardiac Data Registry (NCDR) and/or other EMS Agency approved or requested registry is required for initial and continued designation.
- B. Participation in Monterey County EMS Agency data collection is required for continued designation. Data shall be submitted to the Monterey County EMS Agency on a quarterly basis or as required by the EMS Agency
- C. STEMI Patient data elements shall include, but not be limited to those data elements described in California Code of Regulations, Division 9, Title 22 and as requested by the Monterey County EMS Agency.

1.

#### D. STEMI QI COMMITTEE

1. The Monterey County EMS STEMI QI Committee is described in Policy 1020, EMS Advisory Committees with required participation by Monterey County STEMI Receiving Centers.

a.

2. The Monterey County EMS STEMI QI Committee will be responsible for a quality improvement process that shall include, but not be limited to:

- a. Evaluation of program structure, process, and outcome.
- b. Review of STEMI-related deaths, major complications, and transfers.
- c. Evaluation of regional integration of STEMI patient movement
- d. Compliance with the California Evidence Code, Section 1157.7 to ensure confidentiality, and a disclosure-protected review of selected STEMI cases.

#### VIII. **BASIS FOR LOSS OF DESIGNATION**

The Monterey County EMS Agency may suspend or revoke the approval of an SRC at any time for failure to comply with any applicable policies, procedures, or regulations, including failure to submit required data within the applicable timeframes. Grounds for loss of designation may include, but are not limited to:

- A. Inability to meet and maintain STEMI Receiving Center Designation Criteria
- B. Failure to provide required data and/or to participate in STEMI system QI activities
- C. Other criteria as defined and reviewed by the EMS Agency STEMI QI Committee

**END OF POLICY** 

John Beuerle, M.D.

EMS Medical Director

EMS Bureau Chief



### **APPLICATION FOR STEMI RECEIVING CENTER DESIGNATION**

lospita	al:			
			_ Phone #:	
			E-Mail:	
Admini	istration/ Staffi	ng		
A.		or (attach resume)	_	
	Title:	E-mail:	Phone #:	
В.		n Manager (attach resume		
	Name:			
	Title:	E-mail:	Phone #:	
C.	resume) Name:		lifferent from STEMI Program Manag	
	Title:	E-mail:	Phone #:	
TEMI	Receiving Cente	er Requirements:		
A.	Services and active American I	I licensed by the California ccredited by a Heart Attack Heart Association, Mission Iter by the Society of Cardi	k Receiving Center from : Lifeline program or as a	Yes □ No □
	(Provide copy o	of current accreditation do	cumentation)	
В.	Is your hospital approved for Emergency Percutaneous Coronary Interventions (PCI)?		Yes □ No □	
C.	Stent placement all institutions,	fined as a therapeutic coro nt, etc. Total personally pe	nary intervention such as angioplasty, erformed therapeutic PCIs per year at s would include any PCI as defined	

D.	Is there a cardiovascular surgical call panel? (Provide copies of Interventional Cardiologists daily roster On-Call Schedules [primary and backup] and proof that physicians will be immediately available upon notification.)	Yes □	No □
E.	Do you have a Cath Lab team available or on call 24/7/365? (Provide copies of Cath Lab Team daily roster On-Call schedules [primary and backup] and proof that team will be immediately available upon notification.)	Yes □	No 🗆
F.	Does your hospital meet all requirements of the current Monterey County EMS Agency policy #5150 – STEMI Receiving Centers?	Yes □	No □
G.	Does your hospital have a special permit for cardiovascular surgery?	Yes □	No □
Н.	Number of cardiovascular surgeries per year:		
l.	Cardiovascular surgeon?	Yes □	No □
J.	Is there a dedicated recorded phone line, capable of being answered 24/7/365 for paramedic notification of STEMI patients?	Yes 🗆	No □
Policie	s:		
G.	Is there currently a hospital policy for the treatment of myocardial infarction that define who shall receive emergent angiography and who shall receive emergent fibrinolysis?	Yes □	No □
Н.	Does the policy include diversion of STEMI patients only during times of Internal Disaster? (Please attach)	Yes □	No □
1.	Is there currently a hospital policy regarding prompt acceptance of STEMI patients from other STEMI Referral Hospitals that do not have Emergency PCI capability?	Yes □	No □
J.	Is there currently a hospital policy for activation of the Cardiac Catheterization team when notified of an EMS transported STEMI? (Please attach)	Yes □	No □
K.	Does the hospital provide continuing education opportunities for EMS personnel in areas of 12-lead ECG acquisition and interpretation, as well as assessment and management of STEMI patients?  (Provide documentation showing educational presentations)	Yes 🗆	No □

	Print Name			
	Signature – Administrator	Date		
	On behalf of the above-named hospital and physicians, I agree a Monterey County policy #5150 – STEMI Receiving Centers.	to all provision	s identifie	ed in
	Is a process in place to provide the required data to the Monter EMS Agency on no less than a quarterly basis?	ey County	Yes □	No 🗆
•	Does your facility meet the primary door-to-balloon time of 90 less 90% of the time?	minutes or	Yes □	No □
	Do you have a formal quality improvement process to review States, major complications, and performance standards?	ΓΕMI-related	Yes □	No □
	ata: oes your hospital participate in the Monterey County STEMI data ollection?			No □

Please contact the Monterey County EMS Agency at <a href="mailto:emsadmin@co.monterey.ca.us">emsadmin@co.monterey.ca.us</a> prior to submission of the application for initial or continued designation. Request contact with the STEMI program staff member for the purpose of submission of a STEMI Receiving Center application for designation or continued designation.

STEMI Designation Standard	Objective Measurement	Meets	Comments
		Standard	
Current License to provide Basic Emergency Services in	Copy of License	Yes	
Monterey County		No	
Current copy of Joint Commission, HFAP or DN	Copy of Certification	Yes	
Certification		No	
Cardiac catheterization lab available 24/7/365	On-call schedules for three (3) months	Yes	
	On-call policy and procedures documented	No	
Intra-aortic balloon pump capability with staffing	Staffing policies demonstrate support of operations	Yes	
available 24/7/365	Intra-aortic balloon pump capability for # of patients:	No	
Dedicated telephone line for base hospital contact by	Operational dedicated base hospital telephone line.	Yes	
paramedics	Telephone number:	No	
Notification of cardiologist and staff of a STEMI alert	Copy of policy for notification of cath lab team and	Yes	
	cardiologist	No	
Interfacility transfer agreements with Monterey	Copy of transfer agreements to allow automatic acceptance of	Yes	
County hospitals that are not designated as STEMI Receiving Centers	all STMEI patients transferred from Monterey County hospitals	No	
Cardiovascular surgical services available 24/7/365	California permit number	Yes	
		No	
Accept all patients identified as STEMI by EMS personnel	Copy of policy	Yes	
		No	
STEMI Team activation by ED physician upon notice of STMEI patient by EMS	Copy of policy	Yes No	
personnel			
Contingency plans for more than one STEMI patient at	Copy of contingency plans/policies	Yes	
the same time		No	

	HOSPITAL PERSONNEL		
STEMI Receiving Center			
Program Medical Director:		Yes	
Board Certified in			
Cardiovascular			
Disease	Copy of Board Certification in		
2. Board Certified in	Cardiovascular Disease		
Interventional			
Cardiology	Copy of Board Certification in		
3. Credentialed	Interventional Cardiology	No	
member of medical	<u> </u>		
staff with privileges			
for Primary PCI			
4. Trained in cardiac			
radiographic imaging	Documentation of training in		
and radiation	radiographic imaging and		
protection	radiation protection		
5. Job description	Copy of job description		
6. Participates in	Documentation of Monterey		
Monterey County	County STEMI QI program		
STEMI activities	participation		
STEMI Receiving Center			
Program Manager:		Yes	
1. Current RN License	Copy of current RN license or		
	documentation of same		
2. STEMI program	Documentation of STEMI	No	
experience	program experience		
3. Participates in	Documentation of Monterey	-	
Monterey County	County STEMI QI program		
STEMI activities	participation		
Cardiac Cath Lab Manager	Job description	Yes	
		No	
Cardiology Interventionalist	Copy of On-call schedule for 3	Yes	
Caralology interventionalist	months	1.03	
	inontilis	No	
Cardiothoracic Surgery	Current Board Certification	Yes	
Caralothoracic Jurgery	Carrent Board Certification	1.03	
	On-call policy	No	
	On can poncy	110	

	CLINICAL CAPABILITIES		
Process performance	3 months of data documenting door to device time in less than	Yes	
	90 minutes for 90% of STEMI patients	No	
Cath Lab and Interventionalist activation	Copy of policy for STEMI activation	Yes	
D 1:		No	
Policy identifying criteria for patients to receive emergent	Copy of policy	Yes	
angiography or emergent fibrinolysis based on physician decision for individual patients		No	
individual patients	PERFORMANCE IMPROVEME	NT	
Program Review	Copy of policy for QI review of:	Yes	
	<ul><li>Deaths</li></ul>		
	Complications	No	
	Sentinel events		
	System issues		
	Organizational issues     Written QI plan	Yes	
	Written Qi pian	res	
		No	
EMS QI program participation	Written agreement to participate in EMS STEMI QI	Yes	
	program	No	
Data submission to the EMS Agency	Written agreement to submit EMS Agency required data on a	Yes	
	regular basis to be determined by the EMS Agency	No	
STEMI Registry	Data submitted to a STEMI	Yes	
	Registry approved by the EMS		
	Agency	No	
EMS Education	Copy of EMS educational	Yes	
	activities over the previous 3		
	months	No	

ADMINISTRATION				
Application submitted to the Monterey County EMS Agency	Date application received by the Monterey County EMS Agency	Yes	Date of application receipt by Monterey County EMS Agency:	
Written agreement with the Monterey County EMS	Date agreement received by the Monterey County EMS	Yes	Date agreement signed by both	
Agency	Agency	No	hospital and Monterey County EMS Agency:	