

SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Policy Reference No: 5016
Effective Date: January 7, 2013
Supersedes: New

STEMI AND ROSC (“STAR”) RECEIVING CENTER STANDARDS

I. PURPOSE

To establish standards for the designation of hospitals as approved receiving centers for STEMI and post-cardiac arrest patients with Return of Spontaneous Circulation (ROSC) called STAR Centers.

II. AUTHORITY

Code of Federal Regulations, Title 45, Section 164.512 (b) (l) (i)
California Health and Safety Code, Division 2.5, Sections 1797.222, 1797.250, 1797.252, 1798, and 1798.150.
California Code of Regulations, Title 22, Sections 100169, 70411-70419, and 70451 – 70459.
Joint Commission on Accreditation of Health Care Organizations, Emergency Department Standards
San Francisco Business and Tax Regulations Code SEC. 249.8 (e)(1-2)

III. DEFINITIONS

STEMI: An acute myocardial infarction that generates a ST segment elevation on a 12-lead electrocardiogram (EKG).

ST Elevation Myocardial Infarction / Post Arrest with ROSC (STAR) Center: A licensed general acute care hospital with a special permit for a cardiac catheterization laboratory and cardiovascular surgery from the California State Department of Health Services, and designated as a STAR center by the County of San Francisco.

Return of Spontaneous Circulation (ROSC) Post-cardiac arrest patients are those with a pulse, blood pressure or have cardiac output directly observed with ultrasound. These patients are eligible for ICU care and specialized treatment, such as therapeutic hypothermia and cardiac catheterization (if found to have a STEMI as the cause of the cardiac arrest).

IV. POLICY

- A. The EMS Medical Director shall designate a STAR Receiving Center based on the standards set forth in policy.
- B. Designated STAR Receiving Centers shall agree to comply with all applicable EMS Agency Policies and procedures.
- C. A hospital must demonstrate all of the following to become a designated STAR Receiving Center for the EMS system:
 1. Written agreements with the San Francisco EMS Agency designating the hospital as:
 - a) An approved receiving destination for patients transported by EMS ambulances.

- b) An approved destination for STEMI and post-cardiac arrest patients. STAR receiving centers have two months after obtaining the initial designation to complete this written agreement.
2. Licensure as a Comprehensive or Basic Emergency Department (ED).
3. A special permit for a Cardiac Catheterization Laboratory from the California State Department of Health Services (DHS) as well as a special permit issued by DHS for Cardiovascular Surgery Service.
4. Accreditation by the Joint Commission on Accreditation of Health Care Organizations.
5. STAR program description that includes an organizational chart, programmatic goals and objectives, and a Quality Assurance program for both STEMI and post-cardiac arrest patients.
6. Data reporting procedures for the data elements listed in Appendix A.
7. Assigned Program coordinators:
 - a) One interventional cardiologist.
 - b) One nursing administrator (selected from Interventional Cardiology or Emergency Department or Intensive Care Unit).
 - c) Both program coordinators must actively participate in meetings of a STAR Committee which reports to the EMS Advisory Committee (EMSAC).
8. A single point of contact responsible for reporting the data elements listed in Appendix A to the EMS Agency. (This point of contact may be from a service line or department responsible for quality and/or administration of patients treated by Interventional Cardiology, ED or ICU, and does not need to be either a physician or a nurse administrator).

V. INITIAL APPLICATION FOR STAR DESIGNATION

- A. Interested hospitals shall submit a written request for STAR receiving center status along with documentation of their eligibility for the STAR Receiving Center designation by compliance with standards listed in Section IV.
- B. STAR Receiving Centers must pay all applicable fees at a time designated by the EMS Agency. The San Francisco Business and Tax Regulations Code SEC. 249.8 (e)(1-2) authorizes the payment of regulatory fees to the City and County of San Francisco for hospitals that receive STEMI patients through EMS ambulance services.
- C. Approval or denial of the STAR receiving center designation shall be made in writing by the EMS Agency to the requesting Hospital within one month after receipt of the request and all required documentation.
- D. The EMS Agency reserves the right to do an initial site surveys to assure compliance with the standards listed in this policy.

VI. MAINTENANCE OF STAR DESIGNATION

- A. Each receiving hospital will complete a self-assessment at least once every two years to ensure compliance with EMS Agency requirements. The self assessment may be performed concurrent with JCAHO review.

- B. A STAR Receiving Center shall comply with the data collection, record keeping and quality improvement standards for all receiving hospitals as described in *Policy 5010 Receiving Hospital Standards*. Appendix A lists the current STAR data elements. Data collection shall be reported in periods of time designated by the EMS Agency. Data elements may be revised periodically by the STAR Committee with recommendations made to the EMS Agency Medical Director.
- C. Regular participation of the STAR Program coordinators in the STAR Committee meetings.
- D. STAR Receiving Centers must pay all applicable fees at a time designated by the EMS Agency. The San Francisco Business and Tax Regulations Code SEC. 249.8 (e)(1-2) authorizes the payment of regulatory fees to the City and County of San Francisco for hospitals that receive STEMI patients through Ambulance Service Providers.
- E. The EMS Agency may deny, suspend, or revoke the approval of a STAR Receiving Center for failure to comply with any applicable policies, procedures, or regulations. Requests for review or appeal of such decisions shall be brought to the Medical Director of the EMS Agency. Second requests for review or appeal of the EMS Agency Medical Director decision may be submitted to the San Francisco Director of Health.
- F. The EMS Agency reserves the right to do periodic site surveys to assure compliance with the standards listed in this policy.

APPENDIX A: STAR DATA ELEMENTS

Data should be in an Excel spreadsheet showing information for each case.

GENERAL INFORMATION

1. Demographic information (*aggregate data only*)
2. Paramedic run number
3. Time and date of patient arrival
4. Interfacility or 911? If interfacility, ALS or CCT? (*if available*)
5. ED disposition
6. Length of hospital stay
7. Hospital disposition: Discharged? Expired? Transferred?
8. If transferred, times of departure of patient, arrival of patient, and D2B if STEMI
9. ICD code

STEMI DATA ELEMENTS

10. STEMI: 12 lead ECG reading and paramedic interpretation (*completed by EMS Agency, not hospitals*)
11. STEMI: Arrival time at hospital
12. STEMI: First device activation (i.e. “balloon time”)
13. STEMI: Arrival time at hospital to first device activation (D2B)
14. STEMI: Prehospital ECG to first device activation (E2B) (*completed by EMS Agency, not hospitals*)
15. STEMI: Did the patient have ROSC after cardiac arrest?

ROSC DATA ELEMENTS

16. ROSC: Survival to ED admit (% of cardiac arrest patients admitted to ED)
17. ROSC: Survival to hospital discharge (% of cardiac arrest patients discharged or transferred as hospital disposition)
18. ROSC: Use of hypothermia
19. ROSC: Cerebral Performance Score