

Policy 646.10 STEMI Data Requirements

Purpose

The purpose of this policy is to establish the minimum data and report requirements for designated STEMI Receiving Centers (SRC).

Authority

Health and Safety Code, Division 2.5, Sections 1797.67, 1797.88, 1797.220, 1798, and 1798.170;
California Code of Regulations, Title 22, Division 9, Chapter 7.1.

Definitions

- I) “TCEMSA” means the Tuolumne County Emergency Medical Services (EMS) Agency.
- II) “STEMI Receiving Center” or “SRC” means a licensed general acute care facility that meets the requirements for designation as set forth by the Tuolumne County EMS Agency and is able to perform a PCI.
- III) “Percutaneous Coronary Intervention” or “PCI” means a procedure used to open or widen a narrowed or blocked coronary artery to restore blood flow supplying the heart, usually done on an emergency basis for a STEMI patient.
- IV) “STEMI” means ST Segment Elevation Myocardial Infarction and refers to a clinical syndrome defined by symptoms of myocardial infarction in association with ST-segment elevation on electrocardiogram.
- V) Interfacility Transfer (IFT) means the transfer of a STEMI patient from one acute general care facility to another acute general care facility
- VI) STEMI Registry means the database which stores information about STEMI patients to be analyzed in order to monitor and improve clinical care rendered to the population.
- VII) STEMI Referring Hospital means a licensed general acute care facility that needs to transfer a patient for PCI or more comprehensive care.

Policy

- I) Criteria
 - A) Inclusion
 - 1) Any patient, regardless of mode of transport or chief complaint, who presents to the ED with STEMI on a 12-lead ECG performed by prehospital or in the ED.
 - B) Exclusion
 - 1) Any patient without presentation of STEMI on a 12-Lead ECG.
 - 2) Any patient with the presentation of STEMI on a 12-Lead ECG who does not present to the ED or to prehospital personnel (i.e. hospital inpatient not in the ED).
- II) Data Collection and Submission Requirements
 - A) All SRC shall submit registry information for all patients who meet inclusion criteria no later than 60 days after the end of the quarter.
 - B) All data is to be submitted to American Heart Association Registry and EMSA Image Trend STEMI Patient Registry
 - C) All prehospital STEMI patient care elements shall be compliant with the most current version of the California EMS Information System (CEMSIS) database and the National EMS Information System (NEMSIS)
 - D) All hospitals that receive STEMI patients via EMS shall participate in the local EMS Agency data collection process in accordance with local EMS Agency policies and procedures.
 - E) STEMI patient data elements to be collected and reported

- 1) EMS ePCR Number
- 2) Facility
- 3) Name: Last, First
- 4) Date of Birth
- 5) Patient Age
- 6) Patient Gender
- 7) Patient Race
- 8) Hospital Arrival Date
- 9) Hospital Arrival Time
- 10) Dispatch Date
- 11) Dispatch Time
- 12) Field ECG Performed
- 13) 1st ECG Date
- 14) 1st ECG Time
- 15) Did the patient suffer out-of-hospital cardiac arrest
- 16) CATH LAB Activated
- 17) CATH LAB Activation Date
- 18) CATH LAB Activation Time
- 19) Did the patient go to the CATH LAB
- 20) CATH LAB Arrival Date
- 21) CATH LAB Arrival Time
- 22) PCI Performed
- 23) PCI Date
- 24) PCI Time
- 25) Fibrinolytic Infusion
- 26) Fibrinolytic Infusion Date
- 27) Fibrinolytic Infusion Time
- 28) Transfer
- 29) SRH ED Arrival Date
- 30) SRH ED Arrival Time
- 31) SRH ED Departure Date
- 32) SRH ED Departure Time
- 33) Hospital Discharge Date
- 34) Patient Outcome:
- 35) Primary and Secondary Discharge Diagnosis

F) STEMI System Data Elements:

- 1) Number of STEMIIs treated
- 2) Number of STEMI patients transferred
- 3) Number and percent of emergency department STEMI patients arriving by private transport (non-EMS)
- 4) The false positive rate of EMS diagnosis of STEMI, defined as the percentage of STEMI alerts by EMS which did not show STEMI on ECG reading by the emergency physician.

III) Quarterly Aggregate Report Submission Requirements

A) Hospital-Based Reports:

- 1) For STEMI Patients:

- a) False positive rate of EMS diagnosis of STEMI, defined as the percentage of STEMI alerts by EMS which did not show STEMI on ECG reading by the emergency physician.
- b) Rate of PCI procedure success measured as the number of patients achieving TIMI Grade III flow.
- c) Emergency Coronary Artery Bypass rate.
- d) Number of morbidity events (in-hospital stroke, vascular complications).
- e) Total number of STEMI admissions.
 - i. Primary by ambulance.
 - ii. Primary by other.
- f) Total number of PCI procedures.
 - i. Primary by ambulance
 - ii. Primary by other
 - iii. Scheduled.

IV) Additional reports may be requested by TCEMSA in collaboration with the STEMI Quality Improvement Committee (STEMI QIC).