

CENTRAL CALIFORNIA
EMERGENCY MEDICAL SERVICES
A Division of the Fresno County Department of Public Health

Manual	Emergency Medical Services Administrative Policies and Procedures	Policy Number 332 Page 1 of 4
Subject	Trauma System Monitoring	
References	California Code of Regulations, Title 22. Social Security Division 9. Prehospital Emergency Medical Services Chapter 7. Trauma Care Systems	Effective 11/01/88

I. POLICY

The trauma care administered to patients of the local trauma care system will be reviewed for appropriateness and patient outcome. This review will be conducted through the use of the Regional Trauma Audit Committee and Regional Medical Control Committee, both which are composed of health care and trauma care specialists.

II. PROCEDURE

A. TRAUMA REGISTRY

1. Definition

The Trauma Registry is a confidential database of patients who have sustained major injuries or complications within the regional trauma system. This database is utilized for statistical reporting on system activities and quality improvement review of patient outcome. Registry data includes information from prehospital, emergency department, operative and intensive care, and the patient's final disposition. Trauma centers and non-trauma centers will follow the criteria outlined in Policy #334 regarding trauma registry data collection.

B. INTERNAL HOSPITAL REVIEW

The medical records (including prehospital) of each registry patient at trauma centers will be reviewed by the Trauma Nurse Coordinator /Manager or designee for completeness, accuracy and presence of any delays in evaluation and treatment. The hospital's Trauma Surgery Director or designee will review the registry records for appropriateness of diagnostic procedures relative to the admitting diagnosis, timeliness of care, appropriateness of operative therapy relative to diagnosis, complications, morbidity, and length of stay relative to diagnosis.

The Trauma Surgery Director and Trauma Nurse Coordinator/Manager will present registry cases that meet the established criteria to the hospital's appropriate reviewing committee. Trauma centers will utilize a specific Trauma Review Committee whose membership shall minimally include:

Approved By EMS Director	DANIEL J. LYNCH (Signature on File at EMS Agency)	Revision 01/01/2015
EMS Medical Director	JIM ANDREWS, M.D. (Signature on File at EMS Agency)	

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TRAUMA CENTER TRAUMA REVIEW COMMITTEE

Trauma Surgery Director	Neurosurgeon
Emergency Medicine Representative	Orthopedic Surgeon
Trauma Nurse Manager/Coordinator	Hospital Administration
Emergency Department Manager/Supervisor	Prehospital Liaison Nurse

In addition to the members listed above, the Trauma Center should also consider the following representatives:

Anesthesiology
 General Surgeon
 Nurse Manager - OR
 Nurse Manager – ICU
 Radiology Representative
 Blood Bank Representative

Medical Records will be available to allow the committee to review all aspects of the patient's care and course of hospital stay. The hospital Trauma Review Committee is responsible for reviewing the patient's care, identifying problems, providing feedback to individuals involved in a specific patient's care, formulating recommendations for hospital trauma operational procedures, and classification of deaths as mortality without opportunity for improvement, anticipated mortality with opportunity for improvement, or unanticipated mortality with opportunity for improvement. The committee shall forward unusual or problem cases to the Regional Trauma Audit Committee and formulate recommendations on Trauma Care System and EMS System operation. The definitions for the classifications of death are in accordance with the American College of Surgeons criteria and are as follows:

1. Mortality without opportunity for improvement- An event or complication sequela of a procedure, disease, illness, or injury for which reasonable and appropriate preventable steps had been taken.
2. Anticipated mortality with opportunity for improvement – An event or complication that is a sequela of a procedure, disease, illness, or injury that has the potential to be prevented or substantially ameliorated.
3. Unanticipated mortality with opportunity for improvement – An event or complication that is an expected or unexpected sequela of a procedure, disease, illness, or injury that could have been prevented or substantially ameliorated.

C. REGIONAL TRAUMA AUDIT COMMITTEE

1. Membership

The Regional Trauma Audit Committee is an advisory committee to the EMS Agency on issues related to trauma care. The membership shall be broad-based and shall represent the participants in the Trauma System and the local medical community. The Trauma Audit Committee membership shall minimally include:

MEMBERSHIP OF THE REGIONAL TRAUMA AUDIT COMMITTEE (TAC)

Trauma Centers	Non-Trauma Hospitals
Trauma Surgery Director	Trauma Surgery Director
Emergency Department Physician	Emergency Department Physician
Trauma Nurse Coordinator/Manager	Trauma Nurse Coordinator/PLN

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EMS Agency	Local Medical Community
EMS Medical Director	Neurosurgeon (from Neurosurgical Society)
EMS Director	Physician from Rural Area (from Medical Society)
EMS Trauma Coordinator	

Each of the agencies listed above shall notify the EMS Medical Director, in writing, of the name of the person designated to represent the agency and exercise Committee voting privileges. There will be one vote per facility.

2. Chairperson/Vice Chairperson

The Committee shall elect a Chairman who shall serve a term of one year with new elections each January. The committee may elect to choose a co-chairperson. The EMS Medical Director will serve as Vice Chairman in the event of absence of the chairperson (and co-chairperson). Meeting Minutes will be recorded on topics not related to specific confidential patient care issues. The EMS Agency will provide staff support for the Regional Trauma Audit Committee.

3. Committee Responsibilities

The Regional Trauma Audit Committee is responsible for reviewing all aspects of the Trauma Care System and developing recommendations on system operation for the EMS Agency. This will include system operation, trauma care planning, data analysis, trauma policy development, hospital assessment and selection and specific patient base reviews.

The Committee's agenda shall include a review and approval of monthly Minutes, case presentations and specific educational case reviews (e.g. neurologic case review, review of EMS procedures related to the Trauma Care System). Agenda items may occur on a regular schedule including monthly (e.g. case presentations) or at the request of the Committee members. Items not included in the Committee's written agenda may be added at the beginning of the meeting at the discretion of the Chairman.

The Trauma Centers will present case presentations each month. Non trauma centers may present problems transfers or problem cases as needed. Criteria for case presentation to the Regional Trauma Audit Committee are included in Attachment A. Specific educational case reviews may be presented to illustrate new techniques, patient problems, or system operational issues related to a medical specialty such as neurosurgery, orthopedics or pediatrics. The EMS Agency will provide monthly reports to the committee on the regional trauma system. The Committee may provide feedback on system operation or quality improvement issues directly to the EMS Agency, health care facility or provider, and other trauma/EMS advisory groups.

D. EMS AGENCY

The local EMS Agency is responsible for monitoring the operation of the Trauma Care System. The EMS Agency may request an onsite review of any designated trauma hospital with repetitive problems to ensure the problems are being resolved. Additional agency involvement (e.g. State Department of Health Care Services) may be requested as appropriate.

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ATTACHMENT A
CASE PRESENTATION CRITERIA

- I. Case Presentations shall occur each month at the regional Trauma Audit Committee. The criteria for case presentation shall include:
- A. Any death classified as unanticipated mortality with opportunity for improvement or anticipated mortality with opportunity for improvement by the hospital Trauma Review Committee, including:
 - 1. All deaths with initial surgery (required for stabilization) >1 hour after arrival at a trauma hospital.
 - 2. All deaths with a delay in the arrival of the surgeon (>10 minutes).
 - 3. All deaths with unanticipated autopsy findings or autopsy findings inconsistent with the admitting diagnosis.
 - 4. All deaths with inappropriate prolonged prehospital time including on-scene times greater than 10 minutes without explanation, or a transport time greater than 30 minutes if air transport was available.
 - 5. All deaths where probability of survival (PS) > 50% based upon Trauma Score - Injury Severity Score (TRISS).
 - B. Major complications (e.g. Grade 2, 3, 4 in accordance with ACS Guidelines) which significantly increase inpatient hospital time or lead to premature death.
 - C. A comatose patient (Glasgow Coma Scale of less than 8) going to CT or, leaving the emergency department before a definitive airway (endotracheal tube or surgical airway) is established.
 - D. Patients with epidural or subdural brain hematoma receiving craniotomy more than 4 hours from arrival at emergency department to surgical start time, excluding those performed for intracranial pressure (ICP) monitoring.
 - E. Delay to surgery for laparotomy:
 - 1. Surgery start time >1 hour if hypotensive (systolic blood pressure <90mm Hg)
 - 2. Surgery start time >4 hours if stable
 - F. Problem Transfers - Any trauma patient transfer of greater than 6 hours from original time of arrival time at the sending hospital.
 - G. Any trauma team activation with a delay in the arrival of the surgeon of greater than 15 minutes.
 - H. Any trauma case where the trauma consultant does not respond in the specified time period.
 - I. Any case which demonstrates system operational problems.
 - J. Interesting or educational cases.