



SUBJECT: **TRAUMA TRIAGE**

PURPOSE: To establish criteria and standards which ensure that patients requiring the care of a trauma center are appropriately triaged and transported.

AUTHORITY: California Code of Regulations, Title 13, Section 1105(c) California Code of Regulations, Title 22, Section 100236 et seq. Health and Safety Code, Div. 2.5, Section 1797 et seq., and 1317.

PRINCIPLES:

1. Trauma patients should be secured and transported from the scene as quickly as possible, consistent with optimal trauma care.
2. Paramedics shall make base hospital contact to the receiving trauma center on all injured patients who meet trauma triage criteria and/or guidelines. Notification to the receiving trauma center shall be made whenever paramedic judgment determines transport to the trauma center is in the patient's best interest. Contact shall be accomplished in such a way as not to delay transport.
3. Do not delay transport of hypotensive patients with penetrating torso trauma in order to apply spinal motion restriction.
4. EMT personnel may immediately transport hypotensive patients with life-threatening, penetrating injuries to the torso to the closest trauma center, not the Most Accessible Receiving (MAR), when the transport time is less than the estimated time of paramedic arrival. The transporting unit should make every effort to contact the receiving trauma center.
5. When pediatric and adult trauma patients are transported together in one aircraft, the receiving trauma center shall be both a trauma center and a pediatric trauma center.

POLICY:

- I. Trauma Criteria – Requires immediate transportation to a designated trauma center

Patients who fall into one or more of the following categories are to be transported directly to the designated trauma center, if transport time does not exceed 30 minutes.

- A. Systolic blood pressure less than 90 mmHg, or less than 70 mmHg in infants age less than one year
- B. Respiratory rate greater than 29 breaths/minute (sustained), less than 10 breaths/minute, less than 20 breaths/minute in infants age less than one year, or requiring ventilatory support

EFFECTIVE DATE: 05-15-87

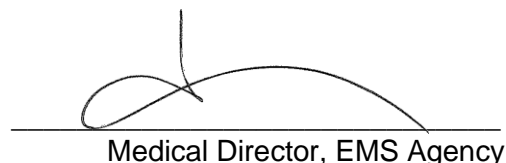
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SUPERSEDES: 12-01-23

APPROVED:


Director, EMS Agency


Medical Director, EMS Agency

- C. Cardiopulmonary arrest with penetrating torso trauma unless based upon the paramedic's thorough assessment is found apneic, pulseless, asystolic, and without pupillary reflexes upon arrival of EMS personnel at the scene
- D. All penetrating injuries to head, neck, torso, and extremities proximal to the elbow or knee
- E. Blunt head injury associated with a suspected skull fracture, altered level of consciousness (Glasgow Coma Score less than or equal to 14), seizures, unequal pupils, or focal neurological deficit
- F. Injury to the spinal column associated with acute sensory or motor deficit
- G. Blunt injury to chest with unstable chest wall (flail chest)
- H. Diffuse abdominal tenderness
- I. Suspected pelvic fracture (excluding isolated hip fracture from a ground level fall)
- J. Extremity with:
 - 1. Neurological/vascular compromise and/or crushed, degloved, or mangled extremity
 - 2. Amputation proximal to the wrist or ankle
 - 3. Fractures of two or more proximal (humerus/femur) long-bones
 - 4. Bleeding not controlled by direct pressure requiring the usage of a hemorrhage control tourniquet or hemostatic agent (approved provider agencies only)
- K. Fall from height > 10 feet (all patients)
- L. Passenger space intrusion of greater than 12 inches into an occupied passenger space
- M. Ejected from vehicles (partial or complete)
- N. Auto versus pedestrian/bicyclist/motorcyclist thrown, run over, or with significant (greater than 20 mph) impact
- O. Unenclosed transport crash with significant (greater than 20 mph) impact
- P. Major / Critical Burn (excluding those in which the MAR is a recognized Burn Center, e.g., Los Angeles General Medical Center, Torrance Memorial Medical Center, West Hills Hospital):
 - 1. Patients 15 years of age or older with 2nd (partial thickness) and 3rd (full thickness) degree burns involving equal to or greater than 20% Total Body Surface Area (TBSA)

2. Patients \leq 14 years of age with 2nd (partial thickness) and 3rd (full thickness) degree burns involving equal to or greater than 10% TBSA

II. Trauma Guidelines – Mechanism of injury and patient history are the most effective methods of selecting critically injured patients before unstable vital signs develop. Paramedics and base hospital personnel should consider mechanism of injury and patient history when determining patient destination. At the discretion of the base hospital, transportation to a trauma center is advisable for:

- A. Passenger space intrusion of greater than 18 inches into any unoccupied passenger space
- B. Automobile versus pedestrian/bicyclist/motorcyclist (impact equal to or less than 20 mph)
- C. Injured victims of vehicular crashes in which a fatality occurred in the same vehicle
- D. Patients requiring extrication
- E. Vehicle telemetry data consistent with high risk of injury
- F. Injured patients (excluding isolated minor extremity injuries):
 1. on anticoagulation or antiplatelet therapy, other than aspirin-only
 2. with bleeding disorders

III. Special Considerations – Consider transporting injured patients with the following to a trauma center:

- A. Patients in blunt traumatic full arrest who, based on a paramedic's thorough patient assessment, was not found apneic, pulseless, and without organized ECG activity (narrow complex supraventricular rhythm) upon the arrival of EMS personnel at the scene
- B. Systolic blood pressure less than 110 mmHg may represent shock after age 65 years
- C. Heart rate greater than systolic blood pressure for \geq 14 years of age
- D. Child (0-9 years of age) unrestrained or in an unsecured child safety seat
- E. Pregnancy greater than 20 weeks gestation
- F. Prehospital judgment

- IV. Extremis Patients - Requires immediate transportation to the MAR:
- A. Patients with an obstructed airway or those with concern for imminent airway obstruction due to inhalation injury
 - B. Patients, as determined by the base hospital personnel, whose lives would be jeopardized by transportation to any destination but the MAR
- V. When, for whatever reason, base hospital contact cannot be made, the destination decision for injured patients will be made by paramedics using the principles set forth above.
- VI. 9-1-1 Trauma Re-Triage – This section applies to injured patients in emergency departments of non-trauma centers whose injuries were initially estimated by EMS to be less serious (under triaged) or patients who self-transported (walk-in) to a non-trauma center, and subsequently assessed by the non-trauma center physician to require immediate trauma center care. The referring facility shall utilize the procedure outlined below to expedite transfer arrangements and rapid transport to the trauma center. This process should be reserved for patients with life-threatening traumatic injuries requiring emergent surgical intervention.
- A. Determine if the injured patient meets any of the following 9-1-1 Trauma Re-Triage criteria:
 - 1. Persistent signs of poor perfusion
 - 2. Need for immediate blood replacement therapy
 - 3. Intubation required
 - 4. Glasgow Coma Score less than 9
 - 5. Glasgow Coma Score deteriorating by 2 or more points during observation
 - 6. Penetrating injuries to head, neck and torso
 - 7. Extremity injury with neurovascular compromise or loss of pulses
 - 8. Patients, who in the judgement of the evaluating emergency physician, have high likelihood of requiring emergent life- or limb-saving intervention within two (2) hours.
 - B. Contact the designated receiving trauma center or pediatric trauma center if the patient is less than or equal to 14 years of age and transport does not exceed 30 min. Do not delay transfer by initiating any diagnostic procedures that do not have direct impact on immediate resuscitative measures.
 - C. Contact 9-1-1 for transportation. The paramedic scope of practice (Ref. No. 803) does not include paralyzing agents. Paramedics can monitor infusion of blood products that have been started by the transferring hospital prior to transport.

- D. Prepare patient and available medical records for immediate transport. Do not delay transport for medical records which could be sent at a later time.

CROSS REFERENCE:

Prehospital Care Manual:

- Ref. No. 501, **Hospital Directory**
Ref. No. 502, **Patient Destination**
Ref. No. 503, **Guidelines for Hospitals Requesting Diversion of ALS Units**
Ref. No. 504, **Trauma Patient Destination**
Ref. No. 506.1 **Trauma Triage Decision Scheme**
Ref. No. 506.2 **9-1-1 Trauma Re-Triage**
Ref. No. 510, **Pediatric Patient Destination**
Ref. No. 803, **Paramedic Scope of Practice**
Ref. No. 814, **Determination/Pronouncement of Death in the Field**
Ref. No. 1333, **Monitoring Transfusion of Blood Products**