



PREHOSPITAL TRAUMA TRIAGE

Effective: January 1, 2023
Replaces: January 1, 2022

I. Purpose

The purpose of this policy is to provide standard criteria for the prehospital triage of trauma and burn patients in Santa Clara County.

II. Trauma Patient

- A. Trauma patients are injured patients who meet the Mechanism of injury, Anatomic, or Physiologic triage criteria (MAP).
- B. Adult trauma patients are to be transported expeditiously to the closest Trauma Center.
- C. Pediatric trauma patients under the age of fifteen (15) years old are to be transported to the closest Pediatric trauma center (Stanford or Santa Clara Valley Medical Center).
- D. Pregnant trauma patients more than twenty (20) weeks gestation are to be transported to the closest trauma center with an approved Level III Neonatal ICU (Stanford or Santa Clara Valley Medical Center)
- E. Injured patients are to be identified as a Trauma Alert if one or more of the criteria in the following sections are met.

III. Adult Trauma Alert – Physiologic Criteria

- A. Glasgow Coma Scale (GCS) less than 14
- B. Systolic blood pressure (BP) less than 90
- C. Respiratory Rate less than 10 or greater than 29 per minute

IV. Pediatric Trauma Alert (under 15-years-old) – Physiologic criteria

- A. GCS less than 14
- B. Systolic BP less than 60 for child six (6) years old or younger
- C. Systolic BP less than 90 for child older than six (6) years
- D. Respiratory Rate less than 10 or greater than 29 per minute

- E. Respiratory Rate less than 20 per minute in infant less than one (1) year old

V. Trauma Alert – Anatomic Criteria

- A. Penetrating injuries to head, neck, chest, back, abdomen, groin, or extremities proximal to the elbow or knee.
- B. Two (2) or more proximal long bone fractures.
- C. Traumatic paralysis or paresthesia.
- D. Flail or crushed chest.
- E. Amputations proximal to the wrist or ankle.
- F. Suspected pelvic fractures. (See Section VII.)
- G. Central Nervous System (CNS) changes witnessed by prehospital personnel that include the following:
 - 1. Post traumatic seizure.
 - 2. Transitory or prolonged loss of consciousness (LOC).
 - 3. Hemiparesis.
- H. Crushed, degloved or mangled extremity.
- I. Open or depressed skull fracture.

VI. Trauma Alert – Mechanism of Injury Criteria

- A. High-Risk Auto Crash as evidenced by:
 - 1. Estimated impact speed of more than forty (40) mph
 - 2. Major auto deformity greater than twelve (12) inches occupant site or greater than eighteen (18) inches any other site.
 - 3. Significant structural damage to the vehicle caused by contact with patient's body, such as damage to the steering wheel and/or column, windshield, etc.
 - 4. Ejection (partial or complete) from the vehicle.
 - 5. Death of a passenger in the same vehicle, who suffered the same or similar mechanism.
 - 6. Prolonged extrication is required to free the victim.

7. Rollover with unrestrained occupant.
- B. Falls
1. Adults: more than fifteen (15) feet (one story is equal to 10 feet).
 2. Pediatric: greater than 10 feet or twice the height of a child that is under six (<6) years old.
- C. Auto vs. pedestrian/bicyclist thrown, run over, or with significant (more than twenty (20) mph) impact.
- D. Motorcycle crash at greater than twenty (20) mph
- E. Cycle crash with rider thrown a significant distance to sustain probable injury. The term “cycle” may include motorcycle, bicycle, ATV, etc.

VII. Special Considerations

- A. There are other factors that might influence destination which patients should be treated in Trauma Centers. The following should be considered in prehospital trauma triage when a traumatic mechanism is also present:
1. Age: Patients over age fifty-five (55) have an increased risk of death from even moderately severe injuries.
 2. Pediatric Considerations: Trauma triage of the pediatric patient requires that the practitioner be knowledgeable of the uniqueness of children's anatomy and their physiologic needs. Interventions must be varied to meet the subtle anatomic and physiologic differences between children and adults. Children sustain more head and multi-systems injuries than do adults due to the fact that traumatic force applied to a child's body is distributed over less body mass.
 3. Co-morbid Factors: The presence of, cardiac, respiratory, or metabolic disease are also factors that may merit the triage of patients with moderately severe injury to Trauma Centers.
 4. Alcohol, drug influence and/or foreign language speaking patients are examples of factors that may make an accurate neurological assessment difficult. The paramedic should maintain a higher index of suspicion in these cases.
 5. Patients on anti-coagulants or with bleeding disorders.
 6. Patients with end stage renal disease requiring dialysis.
 7. Time-sensitive extremity injury.

8. EMS provider judgment to transport patient to a trauma center.
9. Burns (see Section IX)
10. Hanging/mechanical asphyxiation in cardiac arrest
11. Unwitnessed drowning

VIII. Trauma Alert – Ambulance Transport

- A. Transport all Trauma Alerts to a designated Trauma Center.
- B. Patients who are not deemed Trauma Alerts according to the criteria established herein should be transported to an appropriate acute care hospital with emergency services.

IX. Major Burn Criteria

- A. Patients with burn injuries are to be identified as major burn criteria if any of the following are present:
 1. Partial-thickness burns greater than 10% of the total body surface area
 2. Burns that include the face, hands, feet, genitalia, perineum, or major joints
 3. Third-degree burns
 4. Electrical burns, including lightning injury
 5. Chemical burns
 6. Inhalation injury
 7. Burn injury in patients with pre-existing medical disorders that could complicate management, prolong recovery, or affect mortality
- B. Transport all identified major burn patients to a designated burn center.
- C. Patients who do not meet major burn criteria should be transported to an appropriate acute care hospital with emergency services.
- D. Patients who meet the major burn criteria and who also meet trauma alert criteria and the traumatic injuries poses a greater risk of morbidity or mortality shall be transported to: (1) the closest trauma center to the incident location by total emergency ambulance transport time: and (2) that is accepting emergency ambulance patients.