
TRAUMA PATIENT CRITERIA

1. INTRODUCTION: The goal of the Alameda County trauma system is to transport confirmed Critical Trauma Patient(s) (CTP) or, potential CTPs who might benefit from care at a trauma center directly to a designated Trauma Center in a timely manner, bypassing non-trauma centers

2. CRITICAL TRAUMA PATIENT CRITERIA

2.1 A patient is identified as a CTP when any of the following physiologic and/or anatomic factors are present. These patients should be transported code 3

2.2 Physiologic criteria:

- ▶ Glasgow Coma Scale < 14 **or**,
- ▶ Blood pressure < 90 systolic **or**,
- ▶ Respiratory rate < 10 or > 29 (< 20 in infant < one year)

Please note: Normal vitals for pediatric patients differ (see LBRT)

2.3 Anatomic injury factors:

- ▶ Penetrating injury to the torso, head, neck, groin, or extremity proximal to the knee or elbow
- ▶ Flail chest
- ▶ Evidence of two or more proximal long bone fractures (femur, humerus)
- ▶ Crushed, degloved, or mangled extremity
- ▶ Traumatic amputation above the wrist or ankle
- ▶ Evidence of pelvic fracture
- ▶ Open or depressed skull fracture
- ▶ Traumatic paralysis

3. MECHANISM OF INJURY: In addition to CTP criteria, the following mechanisms of injury may be used to identify a CTP. In general, these patients are transported code 2, however, differing field circumstances and/or patient condition may require a code 3 transport

3.1 Falls

- ▶ Falls greater than twenty (20) feet
- ▶ Falls greater than ten (10) feet (≤14 or ≥55 years of age)

3.2 High-risk auto crash

- ▶ Intrusion: > 12 in. occupant site; > 18 in. any site
- ▶ Ejection of patient (partial or complete) from a moving object (automobile, motorcycle, scooter, horse, etc.)
- ▶ Death of an occupant in the same passenger space
- ▶ Vehicle telemetry data consistent with high risk of injury

3.3 Auto v. pedestrian/ bicyclist thrown, run over, or with significant (> 20 mph) impact

3.4 Motorcycle crash > 20 mph

3.5 Suspected closed head injury

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4. SPECIAL PATIENT CONSIDERATIONS: Patients with the following considerations should be considered for transport to a trauma center. ***It is highly recommended that you make base contact in these situations***
- 4.1 Age
 - ▶ Older adults: risk of injury and/ or death increases after age 65
 - ▶ Children: should be triaged preferentially to a pediatric-capable trauma center (e.g.-Children's)
 - 4.2 Anticogulation and bleeding disorders
 - 4.3 Burns
 - ▶ Without other trauma mechanism: ***Triage to burn center***
 - ▶ With trauma mechanism: ***Triage to trauma center***
 - 4.4 Time sensitive extremity injury
 - 4.5 End-stage renal disease requiring dialysis
 - 4.6 Pregnancy > 20 weeks
 - 4.7 EMS provider judgement
5. TRANSPORT: Patients identified as a CTP will be transported to the closest, most appropriate, designated Trauma Center. Exception: The patient is identified as a CTP or Potential CTP but presents with one of the following:

PATIENT PRESENTATION	ACTION
UNMANAGEABLE AIRWAY: <i>The patient requires intubation, and the paramedic is unable to intubate, and an adequate airway cannot be maintained with B.V.M. device.</i>	Closest Basic E.D.
ADULT TRAUMA ARREST - BLUNT or PENETRATING:	Determination of Death in the Field (page 78) Note: Coroner's personnel must transport all dead bodies. If ordered to move a body by law enforcement, note the time, name, and badge number of the officer, and comply with the request. Ensure that the police officer on scene has contacted the Coroner's Bureau for permission to move the body
PEDIATRIC TRAUMA ARREST BLUNT or PENETRATING:	<div>→ ETA to the Pediatric Trauma Center ≤ 20 minutes Pediatric Trauma Center</div> <hr/> <div>→ ETA to the Pediatric Trauma Center ≥ 20 minutes Closest Adult Trauma Center</div>

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6. TRAUMA BASE CONTACT: Varying field circumstances make rigid application of any set of rules impractical. These criteria should serve as guidelines. Clinical circumstances may dictate that transport be undertaken immediately with Trauma Base contact made en route.

- 6.1 Designated trauma base hospital - Highland Hospital is the Designated Trauma Base for all trauma patients requiring base contact.
- 6.2 Trauma base contact is not required if the patient meets "Critical Patient Criteria" or "Mechanism of Injury" and is transported to an Alameda County Trauma Center.
- 6.3 If the patient meets any of the "Special Patient Considerations" and Trauma Base contact cannot be established or maintained, transport the patient to a Trauma Center.
- 6.4 **Contact the trauma Base Physician if:**
 - ▶ The patient meets the criteria listed in the "Mechanism of Injury" criteria but the paramedic is requesting transport to a basic ED
 - ▶ The patient requires medical treatment not covered in the "Trauma Patient Care" protocol (see [page 23](#))
 - ▶ An Out-of-County Trauma Center is being considered
 - ▶ The patient would benefit from consultation with the Base Physician

7. OUT-OF-COUNTY TRANSPORT

- 7.1 The physician at the Trauma Base Hospital may route the patient to an out-of-county trauma center if the out-of-county Trauma Center is the closest most appropriate facility for the medical needs of the patient.
- 7.2 Prior to approving transport to an out-of-county Trauma Center, the Alameda County Trauma Base Hospital must:
 - ▶ Contact the out-of-county Trauma Center by landline to determine if they can accept the patient
 - ▶ Give a brief report including E.T.A
 - ▶ If the patient is going to John Muir Hospital, advise them to turn on their MEDNET radio. Advise the paramedics to contact John Muir via MEDNET when they are five minutes out to give an update
 - ▶ If the patient is going to any other out-of-county Trauma Center, the Alameda County Trauma Base will be required to relay information via landline

7.3 Out-of-County Trauma Centers:

TRAUMA CENTER	LOCATION
JOHN MUIR MEDICAL CENTER	WALNUT CREEK
SANTA CLARA VALLEY MEDICAL CENTER	SAN JOSE
REGIONAL MEDICAL CENTER	SAN JOSE
STANFORD UNIVERSITY MEDICAL CENTER	PALO ALTO
SAN FRANCISCO GENERAL HOSPITAL	SAN FRANCISCO

8. POST CALL-IN - If a CTP is transported to a Receiving Hospital and Trauma Base contact was not made (e.g. a patient with an unmanageable airway), the paramedics must call the Trauma Base from the Receiving Hospital and give a report on a taped line