## TRAUMA TRIAGE

AUTHORITY: Division 2.5 Health and Safety Code. Article 2.5 Regional Trauma Systems. 1798.163

- 1. Triage Criteria For Identifying Major Trauma Victims See attached algorithm
  - 1.1. Patients identified, by the paramedic, as a major trauma victim shall be directed to a trauma receiving hospital approved as a part of the San Mateo County Trauma Plan. (San Francisco General Hospital and Stanford University Hospital)
  - 1.2. If there is any question as to the trauma status of the patient, the paramedic should consult with the TRAUMA RECEIVING HOSPITAL as early as possible in the patient's evaluation
  - 1.3. The paramedic will use the following criteria to identify the major trauma victim
    - 1.3.1. Physiologic Criteria: Adults
      - 1.3.1.1. Glasgow Coma Score <13
      - 1.3.1.2. Systolic blood pressure <90
      - 1.3.1.3. Respiratory rate <10 or >29/minute
    - 1.3.2. Physiologic Criteria: Pediatric (<15 years old)
      - 1.3.2.1. Glasgow Coma Score <13
      - 1.3.2.2. Systolic BP <60 6 years old or younger
      - 1.3.2.3. Systolic BP <90 older than 6 years
      - 1.3.2.4. Respiratory rate <10 or >29
      - 1.3.2.5. Respiratory rate <20 for infants less than 1 year or needing ventilatory support
    - 1.3.3. Anatomic Criteria: Adult and Pediatric
      - 1.3.3.1. Penetrating injuries to head, neck, torso, and extremities proximal to elbow and knee
      - 1.3.3.2. Chest wall instability or deformity (e.g., flail chest)
      - 1.3.3.3. Combination of trauma with burns
      - 1.3.3.4. Two or more proximal long bone fractures
      - 1.3.3.5. Pelvic fractures
      - 1.3.3.6. Open or depressed skull fracture
      - 1.3.3.7. Paralysis, hemiparesis or paresthesia secondary to recent

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## trauma

- 1.3.3.8. All gunshot wounds
- 1.3.3.9. Amputation proximal to ankle or wrist
- 1.3.3.10. Crushed, degloved, mangled, or pulseless extremity
- 1.3.4. Mechanism of Injury: Adult and Pediatric
  - 1.3.4.1. Fall >20 feet adult or >10 feet for children or 2-3 times the height of the child
  - 1.3.4.2. High risk auto crash:
    - 1.3.4.2.1. Death of a victim in the same passenger compartment of a vehicle
    - 1.3.4.2.2. Ejection (partial or complete) from the vehicle
    - 1.3.4.2.3. Extrication time >20 minutes
    - 1.3.4.2.4. Vehicle telemetry data consistent with high risk injury
    - 1.3.4.2.5. Intrusion into interior compartment, including roof: >12 inches occupant site; >18 inches at any site
  - 1.3.4.3. Auto-pedestrian/auto-bicycle/Motorcycle
    - 1.3.4.3.1. Thrown or run over
    - 1.3.4.3.2. Obvious injury
    - 1.3.4.3.3. Complaint of pain or injury
  - 1.3.4.4. Significant blunt force trauma to head or torso from large animal (ex: fall or kick from horse)
- 1.3.5. Special Considerations:
  - 1.3.5.1. Older Adults
    - 1.3.5.1.1. Risk of injury/death increases after age 55
    - 1.3.5.1.2. Systolic BP <110 might represent shock after age 65 years
    - 1.3.5.1.3. Low impact mechanisms (e.g. ground level falls) might result in severe injury
  - 1.3.5.2. Children:
    - 1.3.5.2.1. Under 5 years of age are a vulnerable group
    - 1.3.5.2.2. Should be triaged preferentially to pediatric capable trauma centers
  - 1.3.5.3. Co-morbid factors:
    - 1.3.5.3.1. Patients with head injury on anticoagulation or with bleeding disorders are at high risk for rapid deterioration
      - 1.3.5.3.1.1. Includes warfarin, aspirin, ticlid, plavix, lovenox, etc.
    - 1.3.5.3.2. The presence of cardiac, respiratory, diabetes and other metabolic diseases are also factors that may merit the triage of patients with moderately severe injury to Trauma Centers.
    - 1.3.5.3.3. Patients with end-stage renal disease requiring dialysis

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- 1.3.5.4. Pregnancy > 20 weeks
- 1.3.5.5. Burns
  - 1.3.5.5.1. Without other trauma mechanism: triage to a burn facility
  - 1.3.5.5.2. With trauma mechanism: triage to trauma center
- 1.3.5.6. Time sensitive extremity injury
  - 1.3.5.6.1. Open fracture
  - 1.3.5.6.2. Fracture with vascular compromise
- 1.3.5.7. CNS changes witnessed by prehospital personnel that include the following:
  - 1.3.5.7.1. Post traumatic seizure
  - 1.3.5.7.2. Transitory or prolonged LOC (>1 minute)
  - 1.3.5.7.3. Repetitive questioning
- 1.3.5.8. Other patients, who in the best professional judgment of the paramedic, need to be categorized as major trauma victims.
- 2. Pain Control For Major Trauma Victims
  - 2.1. Consider pain management if indicated, see Adult Pain Assessment protocol
  - 2.2. Consider morphine sulfate 2 5 mg slow IVP for discomfort. May repeat morphine in 2-5 mg increments q 5 minutes or more up to 20 mg.
  - 2.3. If unable to establish an IV up to 5 mg of morphine sulfate may be administered IM. May repeat in up to 5 mg increments q 10 minutes to a max of 20 mg.
  - 2.4. Prior to the administration of morphine sulfate, and prior to each repeat dose, the patients pain and vital signs should be reassessed. The patient must have a SBP>90 mmHg, respirations>12, and awake to report pain.
- 3. Transportation To The Trauma Hospital
  - 3.1. The decision to use code 3 transportation to the hospital will be determined by the transporting paramedic
  - 3.2. In general those patients who meet the physiological criteria for a major trauma victim should be transported code 3
- 4. Documentation
  - 4.1.A PCR will be left at the trauma center for all trauma patients at the time of the call
  - 4.2. The reason for destination should be noted as trauma
- 5. Paramedic Notification Of Trauma Center Or Receiving Hospital
  - 5.1. The paramedic will notify the trauma center or receiving hospital as soon as possible via radio
    - San Francisco General Hospital should be contacted via radio or phone at (415) 206-8901

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5.1.2. Stanford Hospital should be contacted via radio or phone at (650) 723-7337

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