TRAUMA TRIAGE CRITERIA AND PATIENT DESTINATION

Purpose: To establish criteria for triage and destination of trauma patients.


Policy: Patients who are injured will be evaluated, triaged and transported to the appropriate emergency department according to the following criteria:

A. Physiologic Criteria, Step 1:
1. Glasgow Coma Scale ≤ 13
2. Systolic blood pressure < 90
3. Respiratory rate < 10 or > 29 breaths per minute, or need for ventilatory support. (< 20 in infant younger than 1 year of age)

B. Anatomical Criteria, Step 2:
1. All penetrating injuries to head, neck, torso and extremities proximal to elbow or knee*
2. Chest wall instability or deformity (e.g. flail chest)
3. Two or more proximal long-bone fractures
4. Crushed, degloved, mangled or pulseless extremity
5. Amputation proximal to wrist or ankle
6. Pelvic fractures
7. Open or depressed skull fracture
8. Paralysis

* For patients in imminent threat of death from injury to neck or torso, contact base hospital physician within the Hospital Service Area for direction.

C. Mechanism of Injury Criteria, Step 3:
1. Falls:
   a. Adults > 20ft (one story is equal to 10 ft)
   b. Children > 10 ft or two times the height of the child
2. High-risk auto crash
   a. Intrusion, including roof: > 12 inches occupant site; > 18 inches any site
   b. Ejection (partial or complete) from automobile
   c. Death in same passenger compartment

APPROVED:

Nancy A. Lapolla, EMS Director

Angelo Salvucci, MD, EMS Medical Director
3. Auto vs. pedestrian/bicyclist thrown, run over, or with significant (> 20 mph) impact
4. Unenclosed transport crash with significant impact (> 20 mph)

D. Other Criteria/Co-morbidities, **Step 4**
   1. Older Adults
      a. Risk of injury/death increases after age 65 years
      b. SBP < 110 may represent shock after age 65
   2. Head injury with loss of consciousness OR physical signs of head trauma AND with bleeding disorders or on anticoagulants (except aspirin)
   3. Burns
   4. Pregnancy > 20 weeks with known or suspected abdominal trauma
   5. EMS provider judgment

**Procedure:**

Trauma patients will be transported based on injury and “EMS Transport Zone” area
(Per policy 511, EMS Transport Zones: North and South)

**EMS Transport North Zone patients:**

A. Adult patients that meet criteria in either Step One or Step Two or pediatric patients that meet criteria in Step One, Step Two or Step Three, will preferentially be transported directly to the Level II Trauma Center (SBCH) by air ambulance.
   1. If the air ambulance is available, the paramedic will contact SBCH Base Hospital for notification and medical direction.
   2. If the air ambulance is **not** available, the paramedic will make contact with the North Zone Level III Trauma Center (MRMC) for direction. The Level III Trauma Center physician will make the decision if the patient will be transported by either:
      i. rescue aircraft to the South Zone Level II Trauma Center (SBCH)
      ii. ground to the local Level III Trauma Center (MRMC)
      iii. ground to the closest hospital
      iv. ground to Level II TC (SBCH) (ex; pediatric stable Step 3 patient)
      v. The paramedic will give the base hospital physician estimated transport time for each of the transport modes to assist physician in decision making.

B. For adult patients that **only** meet criteria in Step 3 the patient will be preferentially transported to the local Level III Trauma Center (MRMC) and the paramedic will make contact with the Level III Trauma Center for report and direction.

C. For adult patients that **only** meet criteria in Step 4, the paramedic will make contact with the base hospital within the Hospital Service Area to determine patient destination.

**EMS Transport South Zone patients:**

A. Adult or pediatric patients that meet criteria in either Step One, Step Two or Step Three will be transported directly to the local Level II Trauma Center (SBCH).
1. Paramedic will contact SBCH Base Hospital for notification and medical direction.
2. For Step One or Step Two patients only, if transport by ground exceeds 30 minutes and if transport by EMS Aircraft will result in 15 minutes time savings, EMS Aircraft should be used. If EMS Aircraft is unavailable, patient will be transported by ground to SBCH.

3. Step Three patients will be transported by ground ambulance.

B. For patients who only meet criteria in Step 4, the paramedic will make contact with the base hospital within the Hospital Service Area to determine patient destination.

Special Considerations:

A. Obstructed airway: The patient may be transported to the closest available emergency department for airway management prior to transfer to a designated trauma center. In this rare event, the paramedic will contact the hospital the patient will initially be transported to.

B. Traumatic cardiac arrest:
1. Patients 18 years old or older with a transport time to the closest hospital that exceeds twenty (20) minutes or a patient with an extended extrication and total time in cardiac arrest (extrication time plus transport time) exceeds (or will exceed) twenty minutes will be determined to be dead in the field. (per Policy 509, Determination of Death)
   a. If transport time is estimated to be less than 20 minutes, the patient’s cardiac rhythm should be assessed using cardiac monitor.
      i. If the rhythm is PEA greater than 30 beats per minute, ventricular tachycardia or ventricular fibrillation, resuscitation measures shall take place. Transport to the closest hospital unless transport to a trauma center would be no more than 15 minutes longer.
      ii. If the rhythm is asystole or wide complex PEA at a rate of 30 beats per minute or slower, the patient shall be determined to be dead.

2. Patients less than 18 years old will be transported to the closest hospital unless transport to a trauma center would be less than 15 minutes longer. Resuscitation measures will be initiated unless the patient has suffered decapitation, decomposition, incineration, lividity, rigor mortis or evisceration of heart or brain, or by Base Hospital order.
Santa Barbara County Field Triage Decision Scheme
For patients with visible or suspected traumatic injuries

**Measure vital signs and level of consciousness**

**STEP 1**
1.1 Glasgow Coma Scale ≤ 13
1.2 Systolic Blood Pressure < 90
1.3 Respiratory Rate < 10 or > 29 breaths per minute or need for ventilatory support (< 20 in infant age < 1 year)

**Assess anatomy of injury**

**STEP 2**
2.1 All penetrating injuries to head, neck, torso and extremities proximal to elbow and knee
2.2 Chest wall instability or deformity (e.g. flail chest)
2.3 Two or more proximal long-bone fractures (femur, humerus)
2.4 Crushed, degloved, mangled or pulseless extremity
2.5 Amputation proximal to wrist or ankle
2.6 Pelvic fractures
2.7 Open or depressed skull fracture
2.8 Paralysis

**Assess mechanism of injury and evidence of high-energy impact**

**STEP 3**
Falls
3.1.1 Adults: > 20 feet (one story is equal to 10 feet)
3.1.2 Children < 15 years old: > 10 feet, or two times the height of the child
High-risk auto crash
3.2.1 Intrusion: including roof: > 12" occupant site or > 18" any site
3.2.2 Ejection: partial or complete from automobile
3.2.3 Death in same passenger compartment
3.3 Auto vs. pedestrian/bicyclist thrown, run over, or with > 20 mph impact
3.4 Unenclosed transport crash with significant impact (> 20 mph)

**Assess special patient or system considerations**

**STEP 4**
4.1 Age > 65
4.1.1 SBP < 110 may represent shock after age 65
4.2 Head injury with loss of consciousness OR physical signs of head trauma AND with bleeding disorder or on anticoagulant (except aspirin)
4.3 Burns
4.4 Time sensitive extremity injury (open fracture, neurovascular compromise)
4.5 Pregnancy > 20 weeks with known or suspected abdominal trauma
4.6 EMS provider judgment

**Transport to closest ED or by patient preference**

**North:** air transport to Level II Trauma Center (SBCH) if air not available, contact Level III Trauma Center (MRMC) for direction.
**South:** Transport to Level II Trauma Center (SBCH)

**North:** peds patients to be transported to Trauma Center (SBCH) if air transport is available. Adult patients to be transported to Level III Trauma Center (MRMC)
**South:** contact and transport to Level II Trauma Center (SBCH)

**Contact local Base Hospital**
**Consider transport to Trauma Center (SBCH/MRMC)**