

SAN LUIS OBISPO COUNTY EMERGENCY MEDICAL SERVICES AGENCY
PREHOSPITAL POLICY

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TRAUMA PATIENT TRIAGE AND TRANSPORT

PURPOSE

To establish guidelines for EMS personnel to identify and transport **significantly injured** patients who could benefit from the rapid response and specialized services of a trauma center.

AUTHORITY

- A. California Health and Safety Code, Division 2.5
- B. California Code of Regulations, Title 22, Chapter 7

PROCEDURE

- A. Determine if patient condition meets trauma patient criteria.
- B. Contact **the San Luis Obispo County** trauma center immediately with trauma alert or for destination consultation.
- C. Make every effort to keep scene time under 10 minutes.
- D. Transport to the most appropriate facility.

POLICY

This policy applies to both adult and pediatric injured patients, unless stated otherwise.

A. Trauma Patient Criteria

Patients meeting any one of the Physiologic and/or Anatomic criteria following a traumatic event shall be a TRAUMA ALERT and transported to the closest trauma center.

1. **Physiologic Criteria - (Step One)**

Adult injured patients meeting any ONE of the following criteria:

- Glasgow Coma Scale ≤ 13 (based on patient history and attributed to injury)

- Systolic blood pressure <90 mmHg
- Respiratory rate <10 or >29 breaths per minute

Pediatric injured patients meeting ONE of the following criteria (<34 Kg or 14 years):

- Glasgow Coma Scale ≤13 (based on patient history and attributed to injury)
- Evidence of poor perfusion – color, temperature, etc.
- Respiratory rate
 - >60 breaths per minute or respiratory distress
 - <20 breaths per minute in infants <1year
- Heart rate
 - ≤5 years (<22Kg) heart rate <80 beats per minute or >180 beats per minute
 - ≥6 years (23-34Kg) heart rate<60 beats per minute or >160 beats per minute
- Blood pressure
 - Newborn (<1 month) systolic blood pressure <60mmHg
 - Infant (1 month -1 year) systolic blood pressure <70mmHg
 - Child (1 year-10 years) systolic blood pressure <70mmHg + 2X age in years
 - Child (11-14 years) systolic blood pressure <90mmHg

2. Anatomic Criteria –(Step Two)

Injured patients meeting any ONE of the following criteria:

- All significant penetrating injuries to head, neck, torso and extremities proximal to knee or elbow (excludes minor lacerations)
- Chest wall instability or deformity (e.g. flail chest)
- **Two long bone fractures – proximal to the elbow or knee**
- Open or depressed skull fracture
- Paralysis

3. Mechanism of Injury Criteria (Step Three)

For injured patients who do not meet any of the Physiologic or Anatomic Criteria but DO meet one of the following Mechanism Criteria, contact the **San Luis Obispo County** trauma center and initiate a TRAUMA CONSULTATION to determine patient destination. Depending on the patient presentation, the trauma center may direct the patient to a closer hospital.

- Falls
 - Adults: >20 feet (one story is equal to 10 feet)
 - Children: >10 feet or two or three times the height of the child

- High-risk auto crash:
 - Passenger Space Intrusion(PSI) >12 inches occupant patient site; or >18 inches any site within the passenger space including the roof/floor
 - Ejection (partial or complete) from automobile
 - Death in same passenger compartment
- Auto vs. pedestrian/bicyclist thrown, run over, or with significant (>20 mph) impact
- Motorcycle or unenclosed transport vehicle crash(>20 mph)

4. **Special Patient or System Considerations (Step 4)**

Age and co-morbid considerations:

For significantly injured patient(s) that DO NOT meet the Physiologic, Anatomic or Mechanism of Injury Criteria but DO meet one of the following special considerations and are considered at greater risk for serious injury, contact the **San Luis Obispo County** trauma center and initiate a TRAUMA CONSULTATION to determine patient destination.

- EMS provider judgment
- Age greater than 65
 - SBP <110 mmHg may represent shock
- Children < 14 years
- Pregnancy > 20 weeks
- Anticoagulation therapy (excluding aspirin) or other bleeding disorders with head injury (excluding minor injuries)
- Burns with trauma mechanism

Note:

A Trauma Consult **is not required** for ground level/low impact falls with GCS ≥ 14 or when the GCS is normal for patient

B. Contact Trauma Center

Contact the **San Luis Obispo County** trauma center early and immediately upon determining that the patient meets trauma patient triage criteria with a TRAUMA ALERT or TRAUMA CONSULTATION.

1. **TRAUMA ALERT**

A TRAUMA ALERT is initiated when an injured patient meets any one of the Step 1 (Physiologic) or Step 2 (Anatomic) Criteria. Consider early notification to **the San Luis Obispo County** trauma center, from the scene when possible.

- a) EMS personnel should provide a TRAUMA ALERT early and from the scene when possible to assist in early activation of the trauma team and determination of patient destination.
- b) ALS personnel shall contact the trauma center with the TRAUMA ALERT.
- c) A TRAUMA ALERT report should include the following:
 - “TRAUMA ALERT”
 - Unit and medic #
 - ETA to nearest trauma center
 - Report on individual patient: (MITV format)
 - Age and sex
 - **M**echanism of injury
 - **I**njury and complaints
 - **V**ital signs including GCS
 - **T**reatment
 - Include “specific” triage **step**, findings or considerations that identify the patient as meeting TRAUMA ALERT criteria.

2. “TRAUMA CONSULTATION”

A TRAUMA CONSULTATION with **the San Luis Obispo County** trauma center should be obtained to determine trauma patient destination when Step 3 (mechanism(s) of injury) criteria or Step 4 (special considerations) are present and Step 1 (physiologic) and Step 2 (anatomic) criteria are NOT met.

- a) Only ALS personnel may request a TRAUMA CONSULTATION for patient destination
- b) A TRAUMA CONSULTATION report should include the following:
 - “TRAUMA CONSULTATION”
 - Unit and medic #
 - ETA to **closest** trauma center and ETA to closest ED
 (In cases where the closest trauma center and the closest ED are the same facility, inform the San Luis Obispo County trauma center of the situation in the radio report.)
 - Report on the individual patient: (MIVT format)
 - Patient age and sex
 - **M**echanism of injury and scene
 - **I**njury and complaints
 - **V**ital signs including GCS
 - **T**reatment and response
 - Include “specific” **step**, findings or considerations that identify the patient as meeting TRAUMA CONSULTATION criteria
 - Paramedic Concerns

3. The **San Luis Obispo County** trauma center, when not receiving the patient, shall notify the receiving hospital of the incoming patient and provide that hospital with the prehospital care patient information.
4. Patient Updates
When practical, a brief patient update should be given to include any significant changes enroute in vital signs, GCS, physical findings, symptoms or treatments.

C. Exceptions to Direct Transport to a Trauma Center

Trauma patients shall be transported to the closest ED in the following situations:

1. Patient condition necessitates transport to the closest ED, such as the following:
 - a) Unmanageable airway (intubation attempts are unsuccessful and an adequate airway cannot be maintained with BVM or other device)
 - b) Uncontrollable bleeding with rapidly deteriorating vital signs
 - c) Traumatic cardiac arrest – see *SLO County EMSA Prehospital Policy 126: Prehospital Determination of Death*
2. Trauma center physician destination order
3. Patient refusal – see *SLO County EMSA Prehospital Policy 203: Patient Refusal of Treatment and/or Transport*
4. Trauma center is on complete diversion – see *SLO County EMSA Prehospital Policy 154: Hospital Diversion*

- D. The utilization of EMS aircraft for the response and transport of trauma patients shall be in accordance with *SLO County EMSA Prehospital Policy 155: EMS Aircraft (Helicopter) Operations*. EMS Aircraft transport should be considered when ground transport is greater than 30 minutes from the trauma center and air transport would be more expeditious than ground transport.