Adult/Pediatric Trauma Triage

PURPOSE

This protocol was developed to assist the emergency responder to determine what constitutes a trauma patient and where to transport the trauma patient. The goal of any trauma patient assessment and transportation guideline is to facilitate delivery of the patient to the most appropriate level of care in the most expeditious manner.

This protocol applies to all patients who are seriously injured or potentially seriously injured. The criteria listed below serve to identify the injured patients who are likely to require comprehensive trauma care. An ADULT trauma patient is defined as an injured patient (age 15 or greater) who meets any of the following criteria or when in the judgment of EMS personnel, evidence for potential serious injury exists. A PEDIATRIC trauma patient is defined as an injured patient (under 15 years) who meets any of the following criteria or when in the judgment of EMS personnel, evidence for potential serious injury exists. These guidelines are meant to supplement, but not replace, the judgment of the EMS personnel at the scene.

TRAUMA TRIAGE DESTINATION DECISIONS

Any ADULT trauma patient meeting the Physiologic or Anatomic criteria should be transported to the closest appropriate trauma center (refer to the CDC Guidelines for Field Triage of Injured Patients), bypassing a non-trauma facility or a lower level facility may be acceptable. Any PEDIATRIC trauma patient meeting the Physiologic or Anatomic criteria should be transported to the closest appropriate level trauma center bypassing a non-trauma facility or a lower level facility may be acceptable. When circumstances allow, pediatric patients should be transported to a pediatric trauma center. Notify the trauma center as soon as possible, including inclusion criteria and ETA.

PHYSIOLOGIC CRITERIA

Vital signs& level of consciousness

- Glasgow Coma Scale <14
- Systolic Blood Pressure <90 mm Hg
- Respiratory Rate <10 or >29 breaths per minute, or need for ventilatory support

ANATOMIC CRITERIA

Anatomy of injury

- All penetrating injuries to head, neck, torso and extremities proximal to elbow or knee
- Chest wall instability or deformity (e.g. flail chest)
- Two or more proximal long bone fractures (femur and or humerus)
- Crush, degloved, mangled or pulseless extremity
- Amputation proximal to wrist or ankle

- Pelvic fracture

- Open or depressed skull fracture

- Paralysis

Any **ADULT** trauma patient meeting the Mechanism of Injury or Special Considerations criteria should be transported to the closest appropriate trauma center (refer to the CDC Guidelines for Field Triage of Injured Patients), bypassing a non-trauma facility or a lower level facility may be acceptable. Any **PEDIATRIC** trauma patient meeting the Mechanism of Injury or Special Considerations criteria should be transported to the closest appropriate level trauma center, bypassing a non-trauma facility or a lower level facility may be acceptable. When circumstances allow, pediatric patients should be transported to a pediatric trauma center. Notify the trauma center as soon as possible, including inclusion criteria and ETA.

**MECHANISM OF INJURY**

Mechanism and evidence of high-energy impact -Falls

- **ADULT** >20 feet (one story is equal to 10 ft.)

- **PEDIATRIC** >10 feet (one story is equal to 10 ft.) or two or three times

- Height of the child

- High-risk auto crash

- Intrusion, including roof: > 12 in. occupant site; >18 in. any site

- Ejection (partial or complete) from automobile

- Death in same passenger compartment

- Vehicle telemetry data consistent with a high risk injury

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

- Motorcycle/Recreational Vehicle crash >20 mph

**SPECIAL CONSIDERATIONS**

Special patient or system considerations

- **Older Adults**

  - Risk of injury/death increases after age 55

  - SBP < 110 mmHg may represent shock after age 65
- Low impact mechanisms (e.g. Ground level falls) may result in severe injury

-**Children**

Should be triaged preferentially to pediatric capable trauma centers

- Anticoagulation and bleeding disorders

Patients with head injury are at high risk for rapid deterioration

- **Burns**

Without other trauma mechanism: triage to burn facility with trauma mechanism: triage to trauma center

- **Pregnancy >20 weeks**

- Any other injuries felt by EMS personnel to require specialized trauma care

*Exception to these triage guidelines is made for trauma patients requiring airway intervention that cannot be accomplished by pre-hospital personnel. These patients will be transported to closest appropriate hospital to allow for airway management, stabilization and subsequent transfer.*
Measure Vital signs and level of consciousness:
Glasgow Coma Scale <14
Systolic Blood Pressure (mmHg) <90 mmHg
Respiratory Rate <10 or >29 breaths per minute, or need for ventilatory support (<20 in infants aged <1 year)

Assess anatomy of injury:
• All penetrating injuries to head, neck, torso and extremities proximal to elbow or knee
• Chest wall instability of deformity
• Two or more proximal long-bone fractures
• Crushed, degloved, mangled, or pulseless extremity
• Amputation proximal to wrist or ankle
• Pelvic fracture
• Open or depressed skull fracture
• Paralysis

Assess mechanism of injury and evidence of high-energy impact:
• Falls
  o Adults: > 20 feet (one story is equal to 10 feet)
  o Children: > 10 feet or two or three times the height of the child
• High-risk auto crash
  o Intrusion, including roof: >12 inches occupant site; > 18 inches any site
  o Ejection (partial or complete) from automobile
  o Death in same passenger compartment
  o Vehicle telemetry data consistent with a high risk of injury
• Auto vs Pedestrian/bicyclist thrown, run over, or with significant (>20 mph) impact
• Motorcycle/Recreational Vehicle crash >20 mph

Transport to a trauma center.
Steps 1 and 2 attempt to identify the most seriously injured patients. These patients should be transported preferentially to the highest level of care within the defined trauma system (level 1 or 2).

Assess special patient or system considerations:
• Older Adults
  o Risk of injury/death increases after 55 years
  o SBP <110 may represent shock after age 65
  o Low impact mechanisms (e.g. ground level falls) may result in severe injury
• Children
  o Should be triaged preferentially to pediatric capable trauma centers
• Anticoagulants and bleeding disorders
  o Patients with head injury are at high risk for rapid deterioration
• Burns
  o Without other trauma mechanism: triage to burn facility
  o With trauma mechanism: triage to trauma center
• Pregnancy > 20 weeks
• EMS provider judgement

Transport to a trauma center, or hospital capable of timely and thorough evaluation and initial management of potentially serious injuries. Consider consultation with medical control.

When in doubt, transport to a trauma center