

*State of Michigan*  
**System Protocols**  
ADULT/PEDIATRIC TRAUMA TRIAGE

Date: 12.18.2016

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***Adult/Pediatric Trauma Triage***

**PURPOSE**

These guidelines were 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 (age 14 years or younger) 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 Level 1 or Level 2 trauma center if within 45 minutes, otherwise transport to an appropriate Level 3 (preferred) or Level 4 trauma center if the patient can arrive within 45 minutes. Any **PEDIATRIC** trauma patient meeting the Physiologic or Anatomic criteria should be transported to the closest appropriate Level 1 or Level 2 **PEDIATRIC** trauma center if within 45 minutes, otherwise transport to an appropriate Level 1 or Level 2 adult trauma center if the patient can arrive within 45 minutes, otherwise transport to an appropriate Level 3 (preferred) or Level 4 trauma center if the patient can arrive within 45 minutes. If none of these are available transport to the closest facility. Appropriate centers are determined by the Medical Control Authority as indicated in the **Trauma Triage Supplement**. 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

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**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 Level 1, Level 2 or Level 3 trauma center if within 45 minutes, otherwise transport to an appropriate Level 4 trauma center if the patient can arrive within 45 minutes. Any **PEDIATRIC** trauma patient meeting the Mechanism of Injury or Special Considerations criteria should be transported to the closest appropriate Level 1 or Level 2 **PEDIATRIC** trauma center if within 45 minutes, otherwise transport to an appropriate Level 1, 2 or 3 adult trauma center if the patient can arrive within 45 minutes, otherwise transport to an appropriate Level 4 adult trauma center if the patient can arrive within 45 minutes. If none of these are available, transport to the closest facility. Appropriate centers are determined by the Medical Control Authority as indicated in the **Trauma Triage Supplement**. 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

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**SPECIAL CONSIDERATIONS**

Special patient or system considerations

-Older Adults

- Risk of injury/death increases after age 55
- SBP < 110 mm Hg 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.***

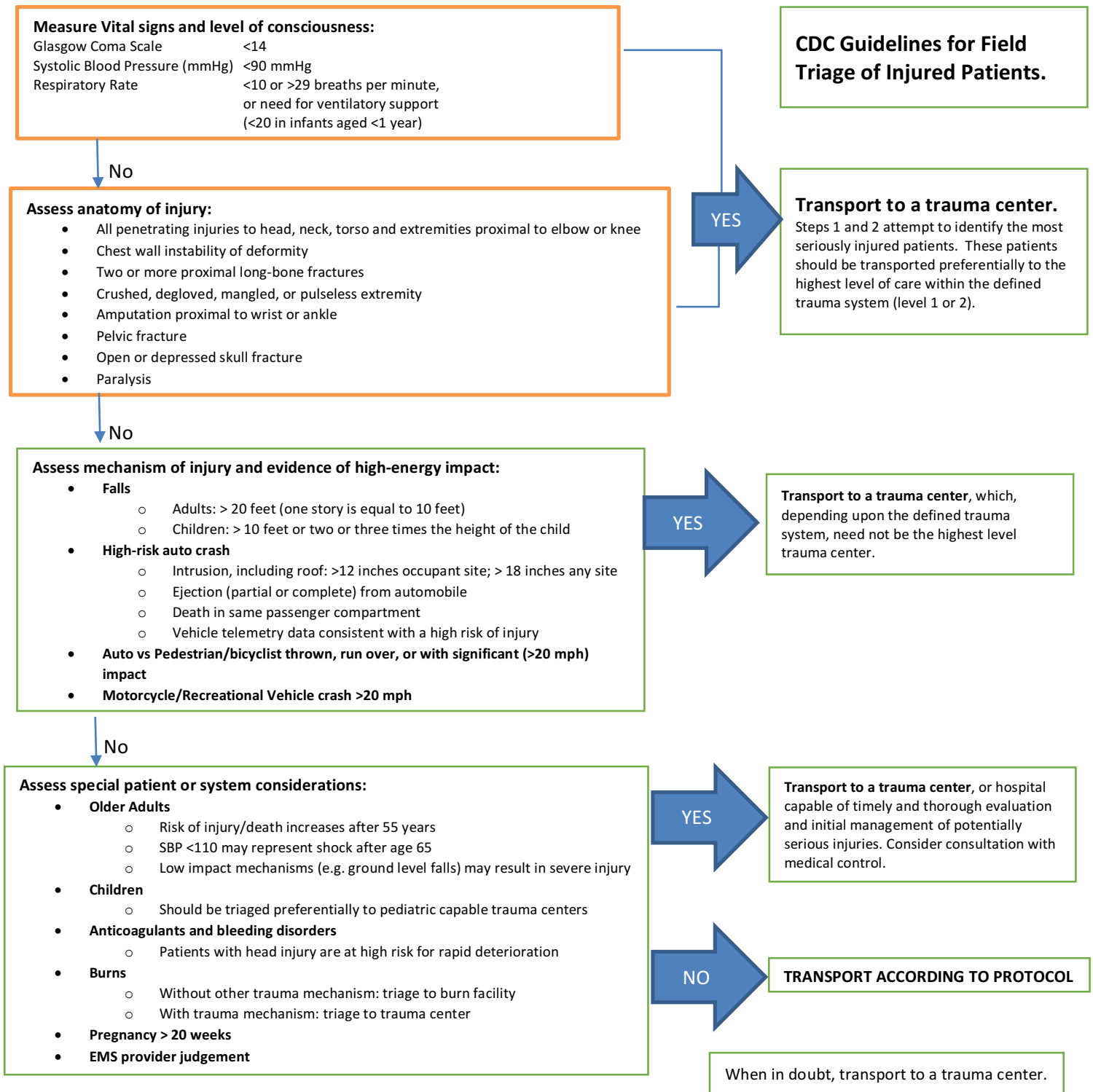
**NOTES**

1. Medical Control may be contacted to determine the appropriate destination when indicated.
2. Helicopter transport should be considered for patients meeting the trauma inclusion criteria and who have a projected ground transport time to the trauma center is greater than 45 minutes.

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