

# Sample Level 4 Trauma Transfer Guideline

## Purpose

Trauma patients who will be transferred out of this facility to a definitive care facility emergently must be identified early, assessed and treated quickly and transferred efficiently in order to provide them the best possible outcome.

## Policy

Patients to be transferred can often be identified before they arrive in the emergency department. Arrangements for emergent transfer can often begin the moment the emergency department staff is notified by EMS that they are en route with a major trauma patient. Other patients may require evaluation by the emergency department physician before the decision to transfer is made. The emergency department physician should endeavor to determine the need for transfer, identify the destination and order the transferring service within 30 minutes of patients' arrival.

Once the decision to transfer has been made, it should not be delayed to obtain X rays, CT scans or laboratory results that do not immediately impact the resuscitation. At this point, the focus of the emergency department staff is on resuscitation and stabilization with the goal of minimizing the patient's length of stay in the emergency department.

Consideration should be given to whether the patient will be transferred via ground or air. Seriously injured trauma patients should be transferred by which ever method delivers them to definitive care sooner, depending on time, distance and conditions.

Transport vehicles should be staffed by paramedics and/or nurses whenever possible. Trauma patients on whom invasive procedures have been performed or who have received medications must be transferred under the care of personnel who are adequately trained to manage their resulting condition. If necessary, a physician or nurse from this hospital may accompany the patient.

The following are conditions that should immediately activate emergency transfer procedures:

- Central Nervous System
  - Penetrating injury/open fracture with or without cerebrospinal fluid leak
  - Subarachnoid hemorrhage & taking anti-platelet medication
  - Epidural or acute subdural hemorrhage
  - Level of consciousness diminished from baseline or deteriorating mental status or lateralizing neurological signs

- Spinal cord injury or major vertebral injury
- Chest
  - Patients who may require prolonged ventilatory assistance
  - Pulmonary contusion
  - Hemothorax or pneumothorax requiring chest tube
  - Wide mediastinum or other signs suggesting great vessel injury
  - Cardiac injury
  - Three or more rib fractures
  - Sternum fracture
  - Scapula fracture
- Pelvis
  - Pelvic fracture with shock or other evidence of continuing hemorrhage
  - Open pelvic injury
  - Unstable pelvic ring disruption
- Abdomen
  - Solid organ injury
  - Major vascular injury
- Major Extremity Injuries
  - Fracture/dislocation with loss of distal pulses or neurological compromise
  - Suspected compartment syndrome
  - Dislocations – knee or native hip
  - Threatened Limb – extremity ischemia, crush injuries, injuries with suspected circulatory or neurological compromise, amputation proximal to digits
  - Open long-bone fractures
  - Multiple long-bone fractures
  - *(AMEND LIST BASED ON ORTHOPEDIC CAPABILITIES)*
- Shock indicators
  - Serum lactate >5.0 mmol/L
- Multisystem Injury
  - Orthopedic injury necessitating admission occurring concomitantly with an injury to the circulatory, respiratory or neurological system

- Injuries to more than two major body systems (circulatory, respiratory, neurological) necessitating admission
- Burns with associated injuries
- Burns requiring admission
- Secondary Deterioration (Late Sequelae)
  - Single or multiple organ system failure (deterioration in central nervous, cardiac, pulmonary, hepatic, renal, or coagulation systems)
  - Major tissue necrosis
  - Mechanical ventilation required
  - Sepsis

The following conditions should be considered for immediate transfer:

- Any patient meeting physiological Trauma Team Activation criteria should be considered for immediate transfer.
- Central Nervous System
  - GCS >10 and <14
  - Skull fracture
  - Subarachnoid hemorrhage
- Facial injuries
- Orthopedic Conditions
  - *(CREATE LIST BASED ON ORTHO CAPABILITIES)*
- Co-morbid Factors
  - Age >55 years
  - Children  $\leq$ 5 years of age
  - Cardiac or respiratory disease
  - Insulin-dependent diabetes
  - Morbid obesity
  - Pregnancy
  - Immunosuppression

## Procedure

## Before patient arrival:

1. After becoming aware that a trauma patient is en route who likely will require emergent transfer, the emergency department staff activates the trauma team and notifies the emergency department physician of the likelihood of transfer. Ascertain from EMS if they have already ordered aero medical transportation.
2. The physician identifies the appropriate mode of transfer (i.e., aero medical vs. ground) and qualifications of transferring personnel.
3. HUC contacts the appropriate aero medical and/or ground transportation, obtains ETA:
  - [INSERT CONTACT INFORMATION for primary and back up Ground transportation]
  - [INSERT CONTACT INFORMATION for primary and back up Ground transportation]
  - [INSERT CONTACT INFORMATION for primary and secondary Air transportation]
  - [INSERT CONTACT INFORMATION for primary and secondary Air transportation]

## After patient arrival:

1. The physician identifies and contacts the receiving facility, and requests the receiving physician to accept the transfer. The two should discuss the current physiological status of the patient and the optimal mode of transfer.
2. Before transfer, the physician should:
  - Ensure chest tubes are placed in the presence of pneumothorax.
  - Ensure at least two IV lines are established.
  - Consider securing the airway with an endotracheal tube, LMA or surgical airway if GCS <11.
  - Consider sending additional blood, equipment and supplies (medications, fluids, etc.) that the patient may need en route if not available in the transporting vehicle.
3. The HUC copies of all available documentation to accompany the patient:
  - EMS report
  - Resuscitation record
  - X-rays, CT scans
  - Lab results