

These guidelines are offered to assist in the appropriate transfer of trauma patients between non-trauma centers and trauma centers.

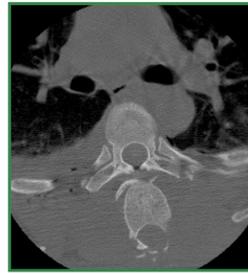
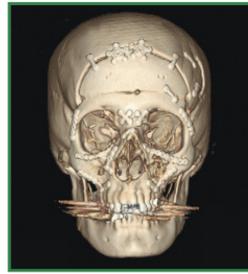
It is expected that these conditions or diagnoses should be discovered within a timely manner and efforts to transfer be initiated immediately upon discovery.

These are only recommendations. The ultimate determination for any medical treatment lies with the treating and/or consulting physician(s).

## GENERAL

- I. If a patient persistently meets trauma alert criteria or one of the following injury conditions, the patient should be transferred to a Trauma Center.
- II. Within 30 minutes of the patient's arrival at the hospital:
  - A. The sending Emergency Physician will initiate definitive care required by the trauma alert patient; or
  - B. The sending Emergency Physician will initiate procedures to transfer the trauma alert patient to a Trauma Center.
- III. The sending Emergency Physician will consult the appropriate specialist(s) on call upon request of the receiving Trauma Center Surgeon.
- IV. An unstable patient with abdominal injuries should be operated upon for hemostasis prior to transfer. If no surgeon is available, such a patient would be transferred.
- V. The sending Emergency Physician should not perform in-depth work-ups, imaging and consultations if this will delay the patient from receiving the medical benefits reasonably expected from the provision of appropriate medical treatment at the Trauma Center.
- VI. Prior to transfer, the sending Emergency Physician and/or surgeon should ensure stability of the patient's airway, breathing, and circulation.
- VII. If the patient is 65 years or older and meets one or more ELDER GRAY-AREA conditions, consider transferring that patient to a trauma center.

## HEAD AND SPINE INJURIES



- ▶ Sustained GCS of 12 or less, or a decrease of 2 or more points from the time of injury
- ▶ Open or depressed skull fracture
- ▶ Basilar skull fracture
- ▶ Brain hemorrhage

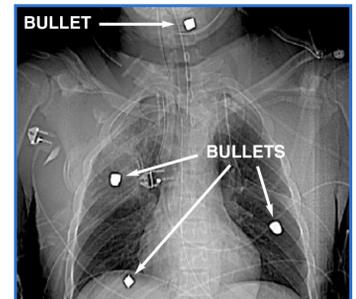
- ▶ Meningeal hemorrhage
- ▶ Presentation of new neurological deficits
- ▶ Spinal cord injury, or major/unstable vertebral injury

- ▶ Subluxations
- ▶ Open spinal wounds
- ▶ Neurogenic shock

## CHEST INJURIES

- ▶ Pneumothorax, tension pneumothorax, or hemothorax with persistent respiratory insufficiency, or with persistent hemorrhage, after appropriate thoracostomy tube placement
- ▶ Flail chest
- ▶ Pulmonary contusion with respiratory insufficiency
- ▶ Cardiac tamponade, or other cardiac injury

- ▶ Aortic disruption
- ▶ Diaphragmatic hernia
- ▶ Tracheobronchial tree injuries
- ▶ Esophageal trauma
- ▶ Wide mediastinum on upright CXR, or other signs suggesting great vessel injury



## ABDOMINAL INJURIES

- ▶ Hemodynamically unstable patients with physical evidence of abdominal trauma, without surgeon evaluation within 30 minutes and/or without capability for surgical intervention within 60 minutes
- ▶ Solid organ injury without immediate surgical capability
- ▶ Ruptured hollow viscus

## ORTHOPEDIC INJURIES

- ▶ Open pelvic injury
- ▶ Pelvic fracture with evidence of continuing hemorrhage
- ▶ Unstable pelvic ring disruption with concomitant abdominal, chest or head injury
- ▶ One or more open long bone fractures with concomitant abdominal, chest or head injury
- ▶ One or more open long bone fractures, with no orthopedic surgeon available, or after fracture site(s) has (have) been appropriately cleaned/irrigated by an orthopedic surgeon
- ▶ Fracture/dislocation with loss of distal pulses after realignment, with either concomitant abdominal, chest or head injury, or no vascular or orthopedic surgeon available
- ▶ Pediatric fractures, with either concomitant abdominal, chest or head injury, with no vascular or orthopedic surgeon available



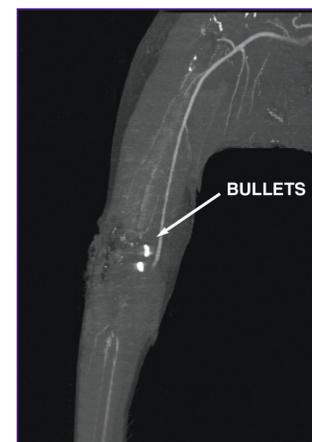
## BURN INJURIES

Burns injuries, including flash/flame, chemical, scalding, contact, electrical or lightning, are to be transferred to a burn center as follows:



- ▶ Second degree burns over 10% total body surface area in children under 15 years old; or over 15% total body surface area in adults
- ▶ Second or third-degree burns involving the face, eyes, ears, hands, feet, genitalia, perineum, and major joints
- ▶ Third-degree burns greater than 5% of the total body surface area in any age group
- ▶ Electrical burns, including lightning injury
- ▶ Burns associated with inhalation or other significant major injury or pre-existing disease
- ▶ Circumferential extremity burns

## VASCULAR INJURIES



- ▶ Major vascular injuries documented by arteriogram, or loss of distal pulses with signs of ischemia after re-alignment of extremity, with either concomitant abdominal, chest or head injury, or no vascular surgeon available

## ELDER GRAY-AREA CRITERIA (>65 years)

### Mechanism of injury:

Burns

Motor vehicle collision associated with:

- ▶ Rapid deceleration of automobile (> 35 mph)
- ▶ Pedestrian ▶ Bicycle ▶ Golf cart ▶ Motorcycle
- ▶ Unrestrained vehicle occupant
- ▶ Significant passenger space invasion
- ▶ Prolonged extrication greater than 20 minutes
- ▶ Significant vehicular damage
- ▶ Rollover ▶ Fatality (other occupant)

### Injuries associated with an above mechanism:

- ▶ Significant chest or pelvic trauma

### Other events associated w/high-energy dissipation:

- ▶ Fall (> ground level)
- ▶ Blast

### Traumatic injury and currently taking:

- ▶ Anticoagulants and blood thinners
- ▶ Cardiac medications such as beta blockers and antiarrhythmics
- ▶ Diabetic medications

### Traumatic injury and medical history of:

- ▶ Cardiac ▶ CHF ▶ COPD
- ▶ Paralysis ▶ Dementia
- ▶ Recent surgery
- ▶ Organ transplant
- ▶ Diabetes

