

Section: Division of Nursing
Approval: _____

* **PROTOCOL** *

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HACKETTSTOWN REGIONAL MEDICAL CENTER

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ED
(Scope)

TITLE: INTERHOSPITAL TRAUMA TRANSFER

PURPOSE: To define and outline general principles for the optimal stabilization and most appropriate transportation of trauma patients.

LEVEL: Independent

SUPPORTIVE DATA: Certain injuries may require transfer of trauma patients from a primary care institution to a facility providing a higher level of trauma care. The decision to transfer the patient to another facility will depend upon the victim's injuries and the ability of the patient's physician and the local hospital and personnel to care for those injuries. Recent evidence supports the view that trauma outcome is enhanced if critically injured patients are cared for in facilities prepared for and dedicated to the needs of the acutely injured.

To help determine which patients might need care at a higher level facility, the ACS Committee on Trauma recommends using certain interhospital triage criteria, physiologic parameters and historical information.

CONTENT:

- A. Interhospital Triage Criteria**
- B. Psychological Criteria**
- C. Circumstances and Mechanism of Injury**
- D. Transfer Process**

A. INTERHOSPITAL TRIAGE CRITERIA The following list identifies patients who are at particularly high risk of dying from multiple and severe injuries. Such patients should be considered for transfer whenever appropriate and possible.

Interhospital Triage Criteria
(Modified from Appendix F-ACS Hospital
Resource Department)

Head Injury

Central Nervous system
Penetrating injury or depressed skull fracture
Open injury with or without CSF leak
Severe injury (GCS<10) or GCS deterioration
Lateralizing signs

Spinal Cord Injury

Chest

Wide superior mediastinum
Major chest wall injury
Cardiac injury
Patients who may require protracted ventilation

Pelvis

Pelvic ring disruption with shock and evidence of continuing hemorrhage and open pelvic injury or pelvic visceral injury.

Multiple System Injury

Severe face injury with head injury
Chest injury with head injury
Abdominal or pelvic injury with head injury
Burns with head injury

Evidence of High Energy Impact

Auto crash or pedestrian injury 25 mph or more
Rearward displacement of front axle or front of car (20 inches)
Ejection of patient, or rollover
Death of occupant in same care

Comorbid Factors

Age < 5 years, or > 55 years
Known cardiorespiratory disease

Secondary Deterioration (late sequelae)

Mechanical ventilation required
Sepsis
Single or multiple organ system failure (deterioration in CNS, cardiac, pulmonary, hepatic, renal or coagulation systems)
Osteomyelitis

B. PHYSIOLOGICAL CRITERIA

Individuals at the extremes of age exhibit physiological differences, which increase the risk of mortality from trauma.

Some physiological measurements such as Glasgow Coma Scale, systolic blood pressure and respiratory rate indicate the need for highly specialized trauma care.

Candidates for transport include:

1. GCS of less than 13 or deteriorating GCS
2. Persistent systolic blood pressure less than 90 mmHg with resuscitation
3. Respiratory rate less than 10/minute or more than 29/minute

C. TRANSFER PROCESS

1. Local physician wishing to transfer the patient should speak directly to the physician accepting the patient at the receiving hospital
2. After physician accepts the patient, an EMTALA form **must** be completed following Cobra transfer policies.

KEY POINTS

Provide the following information:

- a. Identification of patient.
- b. Brief history of incident
- c. Initial patient findings in the ED and the patient's response to therapy administered.

Copy to go with patient. Original for HRMC medical records. Supervisor, ED manager or ED Unit Coordinator to check all forms prior to transfer.

3. A written order must be placed in the chart by the transferring physician. It must include the patient's condition, mode of transport, accepting hospital, accepting physician. Order must be dated, timed and signed by physician.
- Patients may be transported via ground or air, depending on availability of the ambulance or helicopter and availability of adequately skilled personnel to administer the required patient care en route.
3. Information regarding the patient's condition and needs during transfer is communicated to the transporting personnel and indicated on EMTALA form.
- Information should include (but is not limited to):
- airway maintenance
 - fluid volume replacement
 - special procedures that may be necessary
 - ACLS-PALS Standards
4. A copy of the patient's chart, any lab results, EKGs radiology reports and actual copies of films CT scans etc. must accompany the patient.
- The patient's chart (including demographics and historical information, lab and x-ray findings) and copies of the x-rays are needed at the receiving facility.
5. The patient should be resuscitated and attempts made to stabilize his/her condition as completely as possible based on the suggested outline:
- A. Respiratory
1. Insert airway or endotracheal tube if needed.
 2. Determine rate and method of administration of oxygen.
 3. Provide suction
 4. Provide mechanical ventilation when needed.
 5. Insert a chest tube if needed.
 6. Insert a nasogastric tube if needed.
- Prevent aspiration.
- B. Cardiovascular
1. Control external bleeding
 2. Establish two large-bore IV lines and begin Lactated Ringers or Normal Saline infusions.
 3. Restore blood volume losses with crystalloid or blood
 4. Insert an indwelling catheter
- Continue replacement during transfer.
Monitor urinary output.
- C. Central Nervous System
1. Immobilize head, thoracic, and/or lumbar spine injuries.
 2. Controlled hyperventilation for head-injury patients.
 3. Administer mannitol, diuretics, or steroids if needed, after neuro-surgical consultation

- D. Diagnostic Studies as indicated:
 - 1. X-ray cervical spine
 - 2. X-ray chest
 - 3. X-ray pelvis
 - 4. X-ray extremities
 - 5. Hemoglobin, hematocrit and arterial blood gasses
 - 6. Electrocardiogram
 - 7. Urinalysis
 - 8. CT abdomen (trauma protocol)
 - 9. CT head

- E. Wounds
 - 1. Clean and dress
 - 2. Tetanus Toxoid or Diptheria Tetanus
 - 3. Tetanus Immune Globuling, if indicated
 - 4. Antibiotics

- F. Fractures
 - 1. Appropriate splinting and traction
 - 2. Backboard, where indicated