

Title: OAHU GUIDELINES FOR FIELD TRIAGE OF INJURED PATIENTS

Purpose: To outline a field triage process to assist EMS personnel in selecting the best destination for their patients

References: American College of Surgeons, Committee on Trauma, *Resources for Optimal Care of the Injured Patient 2006, I*;Centers for Disease Control and Prevention, *Guidelines for Field Triage of Injured Patients: Recommendations of the National Expert Panel on Field Triage, MMWR 2009:58 (no. RR-1): 2-35.*

EMS providers must determine the most appropriate facility for injured patients. Those with injuries that are more serious should be taken directly to a trauma center, bypassing other hospitals; while those with less serious injuries may be cared for at other facilities, allowing more efficient use of EMS and hospital resources. The highest-level trauma center on Oahu is the Queens Medical Center; a Level 2 trauma center. EMS staff should transport Category 1 and 2 trauma patients to the Queens Medical Center. The next level trauma facilities are level 3 facilities or trauma support facilities. EMS providers should transport Category 3 & 4 trauma patient to these facilities in order to make the best use of our different levels of trauma resources. These facilities should only get level 3 or 4 trauma patients and only after a radio call. EMS providers may transport category 3 & 4 trauma patients to Queens if transport to the other facilities is beyond the 20 minute rule.

The Kapiolani Women and Children's Medical Center is a Pediatric Level 3 Trauma facility. It is vital to remember that we only take them category 3 or 4 patients, age 13 or less and only after a radio communication. It is also vital to remember that since Kapiolani does not have Neurosurgery, we should not take patients there who have (a) a significant mechanism of injury and any neurologic findings on exam or (b) patients who have a significant mechanism of injury like a significant fall and no reliable initial neurologic status, i.e. no one saw them hit the ground and thus initial level of consciousness is unknown. A radio communication is required on all cases.

The Tripler Army Medical Center is Military Trauma Support facility. It is vital to remember that Tripler is not a level 3 Trauma facility and it is not a civilian facility. Remember that Tripler is required by Federal law to use it's resources for the care for active duty military, their dependents and certain retirees, except in the case of a community wide disaster or dire emergency. Therefore we only take Tripler that select group of category 3 or 4 trauma patients and only if the Tripler base station physician accepts them. A radio communication is required on all cases.

Background and General Guidelines:

The use of these guidelines has been proven to lower morbidity and mortality by 25%. The guidelines will assist personnel; yet do not replace EMS provider judgment. Clinical presentation, the circumstances of the injury, and local resource availability should be taken into consideration when implementing these guidelines. When in doubt, consult with a Base Station Physician for guidance.

Field Triage Decision Scheme

Category 1.

Measure vital signs and level of consciousness. Patients meeting any of the following physiologic criteria should be transported to the highest level trauma center:

- A. Glasgow Coma Scale: <14 or
- B. Systolic Blood Pressure: <90 mmHg or
- C. Respiratory Rate: Adults <10 or >29
Infants <one year <20

Category 2.

Assess anatomy of injury. Trauma patients meeting the following anatomic criteria should be transported to the highest level trauma center:

- A. All penetrating injuries to head, neck, torso, and extremities proximal to elbow and knee
- B. Flail chest
- C. Two or more proximal long bone fractures
- D. Crushed, degloved or mangled extremity
- E. Amputation proximal to wrist or ankle

- F. Pelvic fractures

- G. Open or depressed skull fracture
- H. Paralysis

Category 3.

Assess mechanism of injury and evidence of high-energy impact.

Trauma patients with the following mechanisms of injury should be transported to a trauma center but doesn't have to go to the highest level trauma center and it is preferable they go to the lower level trauma center if the transport will follow the 20 minute rule.

A. Falls:

1. Adults >20 feet (one story is equal to 10 feet)
2. Children >10 feet or two or three times the height of the child

B. High-risk auto crash:

1. Intrusion >12 inches occupant site; >18 inches any site
1. Ejection (partial or complete) from automobile
1. Death in same passenger compartment
1. Vehicle telemetry data consistent with high risk of injury
1. Auto vs. pedestrian/bicyclist thrown, run over, or with significant (>20 mph) impact
1. Motorcycle crash >20 mph

Category 4.

Assess special patient or system considerations. Consider transporting trauma patients with the following special circumstances to a trauma center or specialty hospital, but doesn't have to go to the highest level trauma center and it is preferable they go to the lower level trauma center if the transport will follow the 20 minute rule
When in doubt, consultation with the base station physician is recommended:

A. Age:

1. Older adults (risk of injury/death increases after age 55)
1. Children (vital signs and anatomic criteria are less predictive in children)

B. Anticoagulation and bleeding disorders

C. Burns:

Without significant trauma mechanism:

If over 13 take to Straub Hospital and Clinic

If 13 and under take to Kapiolani Medical Center for Women & Children.

*With Trauma Mechanism: Triage to Queens Medical Center

D. Time sensitive extremity injury (open fractures, fractures with neurovascular compromise).

E. End -stage renal disease requiring dialysis (due to the potential for coagulopathies)

F. Pregnancy >20 weeks consider Queens or Tripler if military and within 20 minute rule.

G. EMS provider judgment

Special Circumstances

A. Trauma patients in cardiac arrest

1. Patients in cardiopulmonary arrest from blunt trauma who are found in asystole may be pronounced at the scene.

1. Patients in cardiopulmonary arrest from blunt trauma who are found in PEA or other non-perfusing rhythm should be transported to the nearest facility.

B. Transport an injured patient to the closest hospital for assistance when the patient has an unstable *or* unsecured airway with impending respiratory failure.