LITTLETON REGIONAL HEALTHCARE

POLICIES AND PROCEDURES

TITLE:	**Trauma Patient Transfer Criteria Policy and Procedure**		
EFFECTIVE DATE:	**November 15, 2019**	POLICY NO:	**01RT34**
DISTRIBUTION:	**Emergency Department, Intensive Care Unit**	REGULATORY STANDARD:	
REPLACES NO:			
FORMULATED BY:	**Clinical Director of Critical Care Services**		
APPROVED BY:	**ED Medical Director**		
REVIEW DATE:	**07/90 PRD 01/02, 11/19**		
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I. PURPOSE

Trauma patients who will be transferred out of Littleton Regional Hospital 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.

II. POLICY SCOPE

All staff at Littleton Regional Healthcare who are involved in the care and treatment of patients with acute penetrating or blunt trauma related injuries.

III. POLICY

The goal of Littleton Regional Healthcare is to get the right patient to the right place at the right time. A trauma patient should be transferred to definitive care (level 3 or higher trauma center) as soon as possible. Arrangements for transfer should be made as soon as it is recognized that the injuries of the patient exceed the capabilities of Littleton Regional Hospital to appropriately treat and care for those injuries.

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 for transfer is made.

Once the decision for 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. Generally, seriously injured trauma patients should be transferred by air when possible. Consideration should be given to ground transport if the patient can be received by the definitive

care facility sooner than if transported by air or if air medical transfer is significantly delayed or unavailable for any reason.

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.

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

a. **Physiological Criteria**
    i. Children requiring endotracheal intubation and/or ventilatory support
b. **Central Nervous System**
    i. Penetrating Injury or Open Fracture with / without CSF leak
    ii. Depressed Skull Fracture
    iii. GCS <11 or deteriorating mental status or lateralizing neurological signs
    iv. Spinal Cord Injury or Major Vertebral Injury
c. **Chest**
    i. Major chest wall injury or pulmonary contusion
    ii. Wide mediastinum or other signs of great vessel injury
    iii. Cardiac Injury
d. **Pelvis/Abdomen**
    i. Unstable pelvic ring disruption
    ii. Pelvic fracture with shock or other evidence of continued hemorrhage
    iii. Open pelvic injury
    iv. Major abdominal vascular injury
e. **Major Extremity Injury**
    i. Fracture / Dislocation with loss of distal pulses
    ii. Traumatic Amputation with potential for reattachment
f. **Multiple-System Injury**
    i. Head injury combined with face, chest, abdominal or pelvic injury
    ii. Burns with associated injuries
    iii. Other significant penetrating wounds to the neck, thorax, abdomen or pelvis
    iv. Children requiring intensive care
g. **Secondary Deterioration (Late Sequalae)**
    i. Single or Multiple organ system failure (deterioration in central nervous, cardiac, pulmonary, hepatic, renal or coagulation systems)
    ii. Major tissue necrosis

The following are conditions that should be CONSIDERED for immediate transfer:

a. **Central Nervous System**

b. **Chest**
   i. > 2 unilateral rib fractures
c. **Abdomen**
   i. Solid organ injury
d. **Major Extremity Injury**
   i. Multiple long-bone fractures
   ii. Extremity Ischemia
   iii. Children with fractures of the axial skeleton
e. **Multiple-System Injury**
   i. Injury to more than two body regions
f. **Co-Morbid Factors**
   i. Age > 55 years old
   ii. Pediatric Patients < 5 years old
   iii. Cardiac or Respiratory Disease
   iv. Insulin-Dependent Diabetes / Morbid Obesity
   v. Pregnancy
   vi. Immunosuppression

Burn Criteria (Thermal or Chemical): Transfer arrangements should be made with a Burn Center for any of the following criteria:

a. Electrical injury or burns (including lightening)
b. Burns associated with trauma or complicating medical conditions
c. Third degree burns of >5% of the body surface area for any age group
d. Second degree burns >10% of the body surface area for pediatric patients < 10 years
e. Second degree burns >20% of the body surface area for pediatric patients > 10 years
f. Burns involving:
   i. Signs or symptoms of inhalation injury
   ii. Respiratory distress
   iii. The face
   iv. The ears
   v. The mouth / throat
   vi. Deep or excessive burns of the hands, feet, genitalia, major joints or perineum.

IV. PROCEDURE

a. **Before patient arrival:**
   i. After becoming aware that a trauma patient is en route who likely will require emergent transfer, the emergency department staff will activate the LRH trauma system and collaborate with the emergency department physician of the likelihood of transfer. Ascertain from EMS if they have already ordered air medical transportation.
   ii. The physician identifies the appropriate mode of transfer (i.e., air medical versus ground transport) and qualifications of transferring personnel.
   iii. Emergency Department will contact the appropriate air medical and/or ground transportation and obtain an ETA

b. <u>After patient arrival:</u>

i. The patient will undergo rapid ATLS treatment focused on trauma resuscitation / stabilization followed by expedient transfer to a designated trauma center. The decision to transfer a patient should be made within 15-minutes of ED arrival.

ii. The transferring physician is responsible for issuing orders involving the transfer of patients requiring higher level of trauma care. The patient is to be transferred to the closest appropriate care facility that is able to accept the patient based on the level of care and services required.

iii. The physician contacts the receiving facility and requests the receiving facility trauma physician to accept the transfer. The two should discuss the current physiological status of the patient, current interventions, and optimal timing of transfer.

iv. If the patient is considered too unstable for transfer, the decision for LRH OR intervention will be made by the ED Physician after consultation with the attending LRH on-call General Surgeon.

1. In a situation where there are multiple trauma patients and more than one OR is required, the LRH Emergency Physician and LRH General Surgeon on-call will triage the patient who is most appropriate to be treated at LRH. All others will be resuscitated and transferred to the closest appropriate facility.

c. <u>Before patient transfer (Suggested Physician Goals):</u>

i. Consider sending additional blood products, equipment and supplies (medications, fluids, etc.) that the patient may require en route if not available in the transporting vehicle.

ii. The unit clerk copies all available documentation to accompany the patient:

1. EMS Report
2. Nursing Resuscitation Record
3. Physician Chart
4. X-Rays, CT scans, laboratory results

V. References

Rotondo, M.F., Cribari, C., & Stephen Smith, R. (Eds). (2014). *Resources for the Optimal Care of the Injured Patient.* N. Saint Clair St., Chicago, IL: American College of Surgeons.