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Management of Severe Musculoskeletal Injuries

Purpose: Provide a guideline for identifying orthopedic emergencies, establishing early diagnosis and management of orthopedic injuries with interventions such as timely washout for open fractures; timely administration of antibiotics for open fractures; and timely intervention of operative stabilization of

Guidelines:

- A. Orthopedic emergencies constitute an emergent consult to an Orthopedic Surgeon.
 - a. The Orthopedic Surgeon or Orthopedic APP must respond to physically assess the patient within 30 minutes after the consult is received
 - b. After business hours, the Trauma Surgeon must call emergent consults directly to the Orthopedic Surgeon
- B. Orthopedic Emergency Criteria
 - a. Hemodynamically unstable pelvic fractures with pelvic ring instability
 - i. Excludes isolated pubic rami fractures
 - b. Mangled extremities that include 2 long bone fractures with involvement of a joint
 - i. Tib/fib fracture = 1 long bone
 - c. Long bone fractures (femur, humerus, tib/fib) with vascular compromise
 - i. For patients taken to emergent surgery for vascular compromise or patients taken to Cath Lab for emergent embolization for pelvic arterial hemorrhage
 - 1. Once the decision to go to the OR or Cath Lab is made, emergent cases scheduled by the Vascular Surgeon or Orthopedic Surgeon should be in the OR or Cath Lab within 30 minutes
 - 2. The Hybrid Suite in the OR is the ideal location
- C. Timeliness of Washout for Open Fractures
 - a. Open fractures should be explored and washed out in the OR within 24 hours of arrival by an Orthopedic Surgeon
- D. Timeliness of Antibiotic Administration for Open Fractures
 - a. Intravenous antibiotic infusion should be given to the patient with an open fracture within 60 minutes of arrival to the Emergency Department
 - i. This includes but is not limited to femur, tibia, fibula, humerus, radius or ulna

- E. Timeliness of Operative Stabilization of Femur Fractures
 - a. Excludes femoral neck or intertrochanteric fractures
 - b. Open Reduction Internal Fixation (ORIF) or external fixation to be completed within 24 hours of arrival
- F. A traumatologist is available to care for severe pelvic and acetabular fractures
 - a. In the event the traumatologist is unavailable, the patient will be transferred to a higher level of care
 - b. Patients requiring spine/pelvic fixation may require transfer to a higher level of care
 - c. See Transfer from Deaconess guideline

References:

- American College of Surgeons (ACS). *Resources for Optimal Care of the Injured Patient* (2014).
- ACS TQIP and OTA. (2014). *Best Practices in the Management of Orthopaedic Trauma*.
- Deaconess Trauma Guideline *Transfer from Deaconess*