

Timing and Sequence for the Treatment of Long Bone Fractures in Multiply Injured Patients Guideline

Effective Date: 3/2015	Replaces Policy/Guideline:
(Revised or Reviewed) Date: 3/2021	Approved By: Orthopedics/Trauma

Purpose:

This policy describes...

Scope:

1. Polytrauma patients with long bone fractures will be assessed for medical stability and concomitant injuries prior to proceeding to the operating room for definitive stabilization of long bone fractures.
2. Femoral shaft fractures will be placed immediately into Hare traction splints in the emergency department upon arrival.
3. Operative stabilization or transition to balanced skeletal traction must occur within six hours of Hare traction splint application.
 - a. Multiply injured patient with tibia shaft and humerus fractures will be stabilized with long leg and long arm posterior splints respectively in the emergency department.
4. Polytrauma patients with long bone fractures including concomitant head and or chest injuries will be discussed with the Trauma Acute Care Surgery Service (TACs) and Neurosurgery Service (NSG) to determine stability for operating room and will be considered for damage control stabilization of long bone fractures (balanced skeletal traction versus external fixation of femoral shaft fractures) and continued splinting versus external fixation of tibia and humerus fractures with later conversion to definitive stabilization when concomitant injuries are stable.
5. In the absence of severe head and chest injuries, definitive long bone stabilization of femoral shaft fractures should occur within 24 hours of admission. Femoral shaft fractures should take precedence over tibia shaft and humeral shaft definitive stabilization.

References:

1. O'Brien. Fracture fixation in patients having multiple injuries. Can J Surg. 2003 Apr; 46(2): 124-128.
2. Fulkerson EW, Egol KA. Timing Issues in Fracture Management: A review of current concepts. Bull NYU Hosp for Jt Dis. 2009;67(1):58-67.
3. Gandhi RR, et al. Optimal timing of femur fracture stabilization in polytrauma patients: A practice management guideline from the Eastern Association for the Surgery of Trauma. J Trauma Acute Care Surg. 2014 Nov;77(5):787-795.