

TRAUMA/CRITICAL CARE SURGERY
DEPARTMENTAL GUIDELINES AND
PROCEDURES

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TITLE: T/L SPINE CLEARANCE GUIDELINE

PURPOSE: To provide a guideline for the initial evaluation and management for thoracic and lumbar spine (T/L-spine) clearance at Hospital.

GUIDELINES/PROCEDURES STATEMENT:

Thoracic and lumbar spinal fractures are commonly encountered in blunt trauma patients. Screening for such injuries is critical given the devastating impact that unrecognized fractures and resultant spinal cord injuries may have on patient outcomes. The Eastern Association for the Surgery of Trauma (EAST) updated their guidelines for T/L spine clearance in the trauma population in 2012. This guideline is based on these and other data.

I. GUIDELINES/ RATIONALE:

1. The following criteria mandate screening of the T/L spine for injury:
 - Back pain
 - T/L spine tenderness on physical examination
 - Neurologic deficits referable to the T/L spine
 - Altered mental status
 - Intoxication
 - Distracting injuries
 - Known or suspected high-energy mechanisms
 - Adult falls > 20 feet; Pediatric falls > 10 feet or 3 X height
 - High-risk auto crash with:
 - Intrusion of vehicle > 12 inches in occupant compartment; > 18 inches any other site
 - Ejection (partial or complete) from automobile
 - Death in same passenger compartment
 - Auto versus pedestrian/cyclist thrown, run over, or with significant (>20mph) impact
 - Motorcycle crash > 20 mph
 - High-energy dissipation or rapid deceleration incidents, for example:
 - Ejection from motorcycle, ATV...
 - Striking a fixed object with momentum
 - Blast or explosion
2. The screening study of choice is a multi-detector computed tomographic (MDCT) scan of the chest, abdomen, and pelvis.
3. In blunt trauma patients with a known or suspected injury to the c-spine, or any other region of the spine, thorough evaluation of the entire spine by MDCT scan should be performed.

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4. All patients with penetrating torso trauma should have their T/L spine evaluated, unless the trajectory is obviously not in the area of concern.
5. Patients without complaints of TLS pain that have normal mental status, as well as normal neurological and physical examinations may be excluded from T/L spine injury by clinical examination alone, without radiographic imaging, provided that there is no suspicion of high-energy mechanism or intoxication with alcohol or drugs.
6. Magnetic resonance imaging (MRI) should be considered in consultation with the spine service for MDCT findings suggestive of neurologic involvement of gross neurologic deficits.

MDCT of the T/L Spine:

1. The MDCT must be performed with multi planar reformations as per the radiology T/L spine protocol.
2. If the MDCT demonstrates an injury, consult Spine Surgery (Neurosurgery or Orthopedic Surgery, depending on the day)

Miscellaneous Points:

1. In the evaluation of the T/L spine, plain radiographs contribute no additional information and should not be obtained.

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DEPARTMENT OF PRIMARY RESPONSIBILITY:

Trauma Services

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