

UAMS MEDICAL CENTER
TRAUMA and CRITICAL CARE SERVICES MANUAL

SUBJECT: Management of Spinal Column Injuries Without Cord Involvement

SUPERSEDES: 11/30/18 Guideline

PAGE: 1 of 2

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APPROVAL: 11/30/18, 7/17/20

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DEVIATIONS: We recognize that not all cases are the same. Deviations from these standards require attending involvement and preferably discussion.

INCLUSIONS:

1. Trauma patients presenting to UAMS with known or suspected spine injury *without known or suspected cord involvement*.
2. Spinous process fractures at ANY level and ANY cervical transverse process fractures require spine service consultation.

EXCLUSIONS:

1. Spine injuries with known or suspected cord involvement. Any symptoms referable to spinal cord injury must be managed according to the separate spinal cord injury protocol.
2. Isolated T&L SPINE transverse process fractures DO NOT require spine service consultation.

CONSULTATION:

1. Spine team shall be notified immediately upon *confirmation* of a spinal column injury.
2. All spine consults should be staffed as soon as the resident has seen the patient and reviewed the available imaging.
3. We recognize that circumstances, and therefore plans, occasionally change. However, in order to facilitate advancement of medical and surgical care, getting orthotics ordered, and getting the patient off of spinal precautions, the spine team should communicate the “final” plan with the trauma team by:
 - a. noon the day after admission for overnight admissions
 - b. as soon as it is made for day time admissions.

DISPOSITION:

1. SICU admission if Q1 hour neurochecks are indicated or per attending discretion.
 - a. Unstable C-spine fractures
2. Progressive admission if Q2 neuro
 - a. Stable c-spine fractures, unstable L spine fractures
3. Stable thoracolumbar fractures may be admitted to the floor or discharged home if no intervention necessary per spine team.
 - a. Poly-trauma patients admitted to UAMS will go to the trauma service.
 - b. Isolated spine injuries may go to the consulting spine service with tertiary exam by trauma on HD1 vs to the trauma service for 24 hours. If disagreement exists an attending to attending discussion is advised.

IMAGING:

1. CERVICAL SPINE; See separate guideline for C-spine clearance
2. THORACOLUMBAR SPINE: CT T/L spine are usually reconstructed from the “trauma-gram” with CT C/A/P. However, trauma team should ensure complete thoracolumbar imaging is obtained when;
 - a. An awake patient with a low-energy mechanism has midline back-pain or tenderness.

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PAGE: 2 of 2

- b. Previous incomplete spinal imaging (eg c-spine) shows a spinal injury
- c. High energy/risk mechanism. High energy mechanisms include but are not limited to:
 - i. Fall > 10 feet
 - ii. Motor vehicle collision with high speed, ejection, rollover
 - iii. Motor cycle collision
 - iv. Pedestrian/bicycle/motorcycle vs Car
 - v. High speed ATV/bicycle collision
3. Plain film imaging of the spine for *initial* work-up has no role at UAMS, though it may be necessary as part the care of trauma patients requiring spinal orthotics, etc.
 - a. Any injury identified on plain film imaging **MUST** prompt formal CT imaging of the affected area (if not already done).
 - b. Disposition should **NEVER** be made on the basis of plain films alone, especially discharge from the ED
 - c. **ANY** injuries beyond isolated T&L spine transverse process fractures identified on high-quality CT or MRI require spine service consultation
4. Magnetic resonance imaging may be requested by attending spine surgeon when the consult is staffed, usually in the setting of a CT-proven spinal column fracture. The timing of this will depending on MRI availability and other diagnostic or therapeutic maneuvers.

IDEAL TIMING OF STABILIZATION (IN ABSENCE OF SCI):

1. Unstable cervical spine fractures should ideally be stabilized within 24 hours.
2. Stable cervical and all thoracolumbar fractures should ideally be stabilized within 72 hours.

THROMBOPROPHYLAXIS:

1. May be started upon admission provided no other contraindications.
2. Lovenox should be held the night before surgical stabilization and restarted 24 hours after.
3. Heparin should be held the morning of surgical stabilization and restarted 24 hours after.

REFERENCES: