

TITLE: Management of Thoracolumbar Spinous Processes and Transverse Process Fractures

EFFECTIVE: January 30, 2013

PURPOSE: This is a clinical practice guideline for to determine when the spine surgery team (orthopedic or neurosurgery based) should be consulted for patients with isolated thoracolumbar spinous process or transverse process fractures. This is a guideline only. This does not constitute a standard of care or hospital policy. Clinicians can deviate from this guideline when clinically appropriate but must document a reason for doing so.

I. Score

All injured persons with isolated thoracolumbar spine spinous process or transverse process fractures. Of note, this guideline does NOT apply to cervical spine spinous process or transverse process fractures.

II. Background and Definitions

- A. Spinous process (SP) and transverse process (TP) fractures are frequently encountered spinal fractures, however they are not associated with neurologic injury or instability.¹ These fractures do not require surgical intervention, nor do they require any further management or follow-up beyond pain control.
- B. SP fractures are defined as involving only the spinous process. They do not extend into the lamina. They must not involve any radiographic malalignment.
- C. TP fractures are defined as involving only the transverse process. They do not extend into the pedicle or facet complex, and must not involve any radiographic malalignment.

III. Procedures and Treatment

When spinal fractures are suspected, the following algorithm defines their management:

- 1) Imaging must be performed to include CT scan of the T/L spine either via dedicated scan or reconstruction of axial slices obtained during a CT chest, abdomen and pelvis study. The anatomic diagnosis of SP/TP fractures cannot be determined based solely on axial slices.
- 2) The fractures must be confined to the anatomic definitions above. Fractures that extend beyond these anatomic definitions require spine service consultation.
- 3) Follow-up of final radiology reports of the above-described studies will be the responsibility of the primary service.
- 4) Pain control is the responsibility of the primary team caring for the patient

Trauma Department Practice Manual Roles and Responsibilities of Trauma Team Members

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Date

¹ Bradley LH, Paullus WC, Howe J, Litofsky NS. "Isolated transverse process fractures: Spine service management not needed." J. Trauma, 65:832-836, 2008.