PRACTICE GUIDELINE

Effective Date: **7-16-04** Manual Reference: **Deaconess Trauma Services**

TITLE: MANAGEMENT OF SPINAL FRACTURES

PURPOSE: To define patients in which evaluation of the lower spine must be undertaken, define early intervention of lower spine injuries, and prevent neurologic deterioration.

DEFINITIONS:

1. Stable spine injury: Those injuries not associated with a neurologic deficit and not at risk for development of neurologic deficit and not prone to late collapse (e.g., transverse process fractures, spinous process fracture, minimal compression fracture).

2. Unstable spine injury: Any fracture pattern associated with a neurologic deficit and those that are prone to develop a neurologic deficit or those prone to late collapse (e.g., fracture subluxation and dislocation, severe burst fractures).

GUIDELINES:

1. Follow ABCs.

2. Secondary survey:
   a. Logroll patient with full C-spine immobilization to determine areas of tenderness in the thoracic and lumbosacral spine. If tenderness present, assume the spine to be unstable
   b. Examine for areas of increased kyphosis or spinous process step-of.
   c. Perform neurologic exam to determine any deficits suggestive of neurologic injury
   d. Examine rectal tone (involuntary and voluntary)

3. Obtain CT of bony thoracic and/or lumbar spine to evaluate for fracture if pain or tenderness in spine or neurologic deficit found on exam.

4. If neurologic injury is found without bony injury, obtain an MRI scan of the involved spine.

5. Consult neurosurgery if bony injury to the vertebral body or neurologic deficit is found. Decision for kyphoplasty should be made after review of patient by neurosurgery.

6. If patient has defined unstable spine fracture (see above), patient should be admitted to step down or higher level of care (ICU) until neurosurgeon agrees with transfer to lower level of care.

7. Maintain spinal precautions until cleared by the consulting service.

8. Beware of ileus in patients with spinal fractures. Consider early use of NG tube.

9. Respiratory Therapy will obtain Forced Vital Capacity and Negative Respiratory Force studies on admission if ordered; every 6 hours for 24 hours for patients with cervical spine injuries with quadriplegia if ordered.

10. If fracture is noted in one area of spine, complete C/T/LS CT scans should be considered to assess additional fractures.

REFERENCES:

- Deaconess Trauma Guideline Manual, TRAUMATIC QUADRIPLEGIA OR PARAPLEGIA.
- Deaconess Trauma Guideline Manual, CERVICAL SPINE CLEARANCE.
- Deaconess Trauma Guideline Manual, NECK IMMOBILIZATION PRIOR TO CERVICAL SPINE CLEARANCE.

REVIEWED DATE	REVISED DATE
JAN 05	8-17-07 Peer Review
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