

## 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 ABC's.
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-off.
  - c. Perform neurologic exam to determine any deficits suggestive of neurologic injury.
  - d. Examine rectal tone (involuntary and voluntary).
3. Obtain AP and lateral thoracic X-rays for patients with pain in thoracic vertebrae.
4. Obtain SP and lateral lumbosacral X-rays for patients with pain in the lumbosacral vertebrae. Keep high index of suspicion for possible lumbar fracture in patients with abdominal wall "seatbelt sign."
5. If neurologic injury is found without bony injury, obtain an MRI scan of the involved spine.
6. Consult neurosurgery if bony injury or neurologic deficit is found.
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. Begin steroid protocol (see guideline for reference "Quadriplegia and Paraplegia") if complete or incomplete neuro deficit is found. Respiratory Therapy will obtain Force Vital Capacity and Negative Respiratory Force

studies on admission; every 6 hours for 24 hours for patients with cervical spine injuries with paraplegia.

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

**REFERENCES:**

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

<b>REVIEWED DATE</b>	<b>REVISED DATE</b>
JAN 05	8-17-07 Peer Review
JAN 06	
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