

## VTEMS District 3 Cervical Spine Assessment Protocol

**A. Applies only to those EMT-intermediates who have successfully completed training for this protocol.**

**B.** All victims of blunt trauma or penetrating trauma with possible associated cervical injury MUST be managed and transported with full spinal immobilization if any of the following criteria are met (Figure1):

1. Significant or unknown mechanism of injury\*
2. Altered level of alertness or evidence of intoxication
3. Presence of other distracting (painful) injury
4. Subjective spinal pain
5. Objective spinal tenderness
6. Subjective neurological deficit
7. Objective neurological deficit
8. After all of the above have been excluded: subjective pain with neck motion by patient.

\* "Significant mechanism" includes fall from bed or standing height in an elderly patient. Mechanism does not necessitate full immobilization but should serve to alert EMTs to the need for spine injury screening.

**C.** Once one of the above criteria is positive, immobilize and transport the patient.

**D.** Patients who have none of the above criterias and who request EMS transport may be transported without full spinal immobilization.

**E.** All criteria must be clearly documented for all patients transported without full spinal immobilization

**F. EMT-I providers MUST use full C-spine immobilization for ANY cases that are vague.**

**G.** EMT-I providers should involve online medical direction for any difficult cases, including patients who meet criteria for spinal immobilization, request EMS transport, and refuse immobilization.

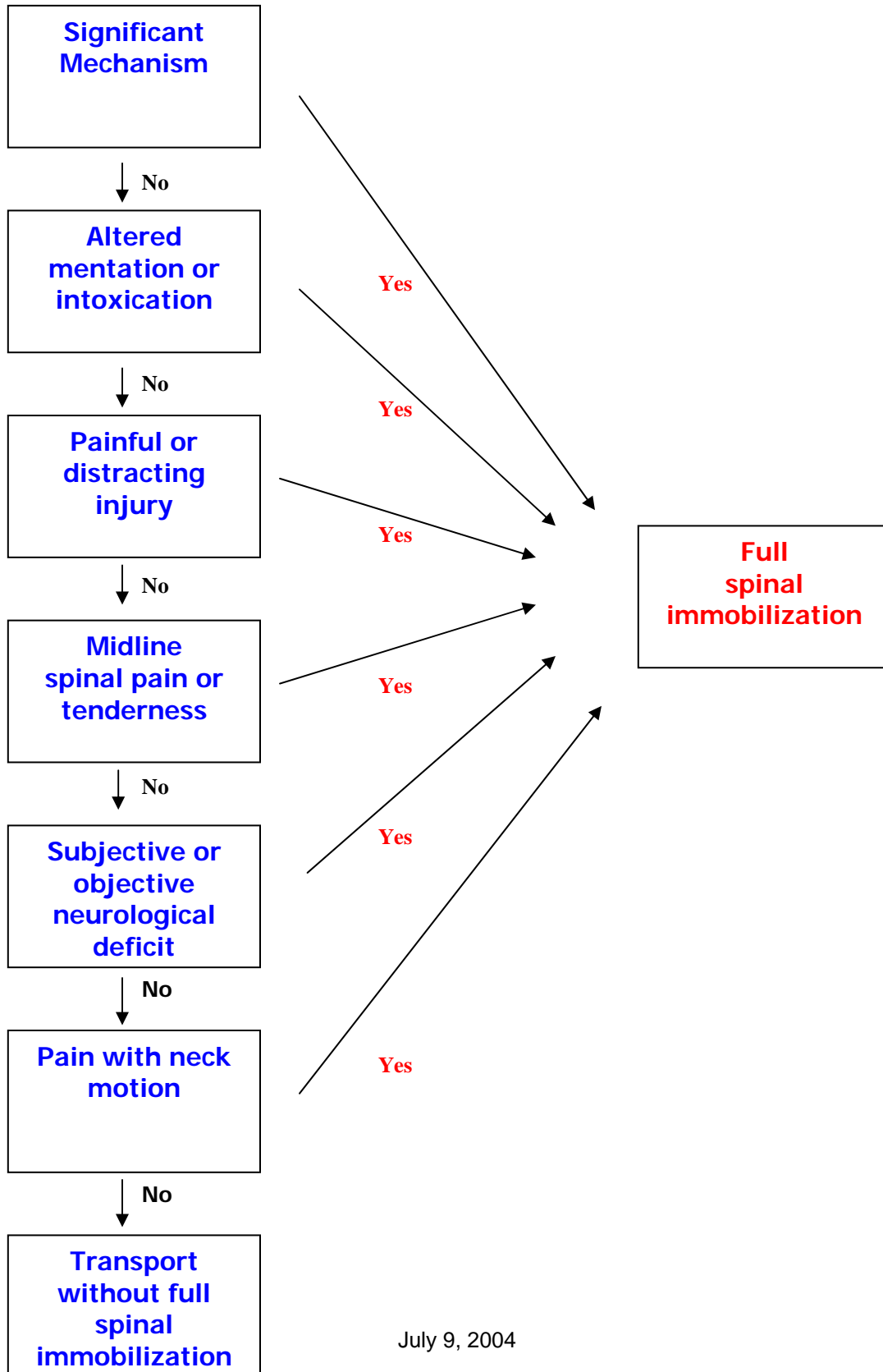
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District #3 Medical Advisors

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District #3 Chair

## Algorithm for EMT-I C-spine Assessment



July 9, 2004

## Vermont EMS District 3 Spinal Assessment Form

Date: \_\_\_\_\_

Patient's name: \_\_\_\_\_

Patients birth date: \_\_\_\_\_

EMS Service: \_\_\_\_\_

EMT-I: \_\_\_\_\_

Mechanism of Injury: \_\_\_\_\_

\_\_\_\_\_

Describe any findings that require immobilization precautions under "details."

Immobilization Criteria	Yes	No	Pertinent Positives
Significant mechanism of injury			
Altered mentation or intoxication			
Presence of other distracting (painful) injury			
Subjective spine pain			
Objective spine tenderness			
Subjective neurological deficit			
Objective neurological deficit			
Pain with unassisted neck motion			

**Comments:** \_\_\_\_\_

Instructions: Attach this form to the pink copy of your patient care report

## **Review of Assessment Protocol Criteria**

### **1. Significant mechanism of injury**

- a. Any violent impact to the head, neck, torso, or pelvis
- b. Sudden acceleration, deceleration, or lateral bending forces to the neck or torso.
- c. Fall from greater than 3 feet. Elderly patients (>65) falling from bed or from a standing height.
- d. Ejection or fall from motorized or human powered transportation device.
- e. Axial load (diving).
- f. Unwitnessed loss of consciousness.

\*\* Mechanism does not necessitate full immobilization but should serve to alert EMTs to the need for spine injury screening.

### **2. Altered level of alertness**

- a. Clearance of the cervical spine requires that the patient be calm, cooperative, sober, and alert.
- b. Includes patients that are poor historians
  - i. Children and infants
  - ii. Some elderly
- c. Medical conditions that cause a change in mentation.
- d. Intoxication
  - i. Alcohol, drugs, or medications

### **3. Presence of a distracting injury**

- a. A distracting injury is one that impairs the patient's ability to appreciate other injuries:
  - i. Head injury
  - ii. Long bone fractures
  - iii. Large laceration
  - iv. Abdominal or pelvic pain
  - v. Large burns
  - vi. Medical conditions (cardiac pain or difficulty breathing)

### **4. Subjective cervical or thoracic spine pain**

- a. Patient complains of neck pain.
- b. Patient complains of back pain.

### **5. Objective cervical or thoracic tenderness**

- a. Patient has tenderness with palpation of the cervical or thoracic spine.

- b. Examination of the neck reveals:
  - i. Swelling
  - ii. Bruising or redness
  - iii. Abrasions
  - iv. Deformity

**6. Subjective neurological deficit**

- a. Patient complains of numbness, tingling, pins and needles, etc.
- b. Patient complains of decreased strength or decreased ability to move limbs.
- c. Any patient who describes transient numbness , tingling, or weakness should be fully immobilized even if symptoms have resolved.

**7. Objective neurological deficit**

- a. Patient cannot move extremities
- b. Patient's extremities are flaccid.

**8. Pain with unassisted neck motion**

- a. If ALL of the previous criteria have been satisfied, the final step is to ask the patient to move their neck without assistance.
- b. If the patient has any subjective pain, they must be fully immobilized.
- c. If the patient complains of any neurological deficit after neck motion, they must be fully immobilized.

**The VTEMS District #3 Spinal Assessment Protocol may only be used to those EMT-intermediates who have successfully completed the training for the protocol.**