



VCEMS Informational Bulletin



Bulletin 050

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To: Acute Care Hospitals, Prehospital Provider Agencies

From: Daniel Shepherd, MD
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Re: VCEMS Policy 614 – Spinal Motion Restriction

I would like to clarify a few of the principles underlying the spinal motion restriction policy (614). “SMR” is the term we have adopted for what we previously called “spinal immobilization.” There is clinical evidence that backboards cause harm. In fact, studies have suggested that patients actually move more, not less, when on the backboard. As a result, EMS systems throughout the country have been abandoning the use of backboards as part of “Spinal Motion Restriction” or “Spinal immobilization”.

All procedures have risks and benefits. Spinal motion restriction with a cervical collar is adequate for most patients. These patients can be transported safely lying on the gurney cot secured with the standard straps. Backboards are tools that should only be utilized if necessary and have very limited indications. The risk of putting a patient on a backboard and trying to immobilize them likely exceeds the benefit in most scenarios.

You may find a backboard necessary in certain patients. Some examples are unresponsive or significantly altered patients. A mildly confused patient should not be secured to a backboard for transport. You may also find the logistics of the call require use of a backboard for purposes such as movement of a non-ambulatory patient to the gurney, or to provide a hard surface for CPR. If a backboard is necessary to move the patient to the gurney it is allowable and encouraged to remove the hard board prior to transport whenever possible.

You will have to use some clinical judgement. The goal of this policy change is to dramatically limit the frequency with which backboards are used for spinal motion restriction. Read the policy carefully to understand when a cervical collar is indicated. Use a backboard only if absolutely necessary to continue patient care. It is impossible to create a policy that will encompass all clinical scenarios, but here are guidelines on how to manage the four most common situations:

- 1) Unconscious or significantly altered trauma patient: If this patient is unable to control their movements or “self-splint” they may be placed in traditional spinal motion restriction with a c-collar, backboard, and head secured.
- 2) Conscious patient with Isolated cervical spine injury: Apply c-collar and transport on gurney cot without backboard. Patient can be transported with head elevated 30 degrees for comfort.
- 3) Conscious patient with thoracic or lumbar injury +/- cervical spine injury: Apply c-collar if indicated. Transport on gurney cot positioned supine.
- 4) Conscious patient with neurologic deficit or complaint: Apply c-collar. Transport on gurney cot positioned supine.

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