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SPINAL IMMOBILIZATION

Effective: 6/2026
Next Revision: 6/2029

(Signature On-file)
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SPINAL IMMOBILIZATION

DEFINITIONS:

Focused Spine Assessment - An exam that utilizes mechanism(s) of injury, external factors, and specific physical exam findings to rule out potential spinal and neurologic injury.

Spinal Motion Restriction (SMR) - Application of cervical and/or thoracic splint/collar and patient placed in a position of comfort on the gurney that minimizes spinal motion with normal seat belt straps applied.

Full-Spinal Immobilization – Application of cervical and/or thoracic splint/collar and patient placed on either a vacuum splint or on a backboard or equivalent with body securely immobilized with straps.

PURPOSE:

This policy shall be followed when circumstances indicate a potential for spinal injury. El Dorado County has recognized the importance in reducing the risks and complication associated with unnecessary spinal immobilization utilizing backboards, therefore the goal is to reduce unnecessary use of the backboard.

POLICY:

1. Any patient with a suspicion of spinal injury should be immobilized by prehospital personnel in either SMR or full-spinal immobilization, as is indicated.
2. A good clinical history and exam can limit the need for immobilization to the group of patients more likely to have an injury.
3. Patients who sustain a significant blunt mechanism of injury and who are unable to provide a reliable history and exam require SMR. (ALOC, distracting injury, extremes of age, etc)
4. Penetrating trauma patients benefit most from rapid assessment and transport to a trauma center without SMR.
5. Vehicle accident patients may self-extricate whenever possible. Application of a cervical/thoracic splint should be applied before extrication.
6. **ALS ONLY: For situations where a patient has already been placed in SMR prior to the arrival of paramedics: these patients may either remain in SMR or be cleared following a full spinal assessment and exam. Patients expected to be transported by air should be maintained on a backboard if already placed.**

INDICATIONS:

Consider SMR for any patient suspected of having a traumatic spinal injury.

SMR or full spinal immobilization SHALL occur if any of the following are present:

- Obvious, gross neurologic deficit involving extremities
- Significant secondary blunt mechanism of injury (e.g., vehicle accident w/ penetrating AND blunt mechanism, etc)
- Priapism
- Neurogenic shock
- Anatomic deformity to the spine secondary to acute injury

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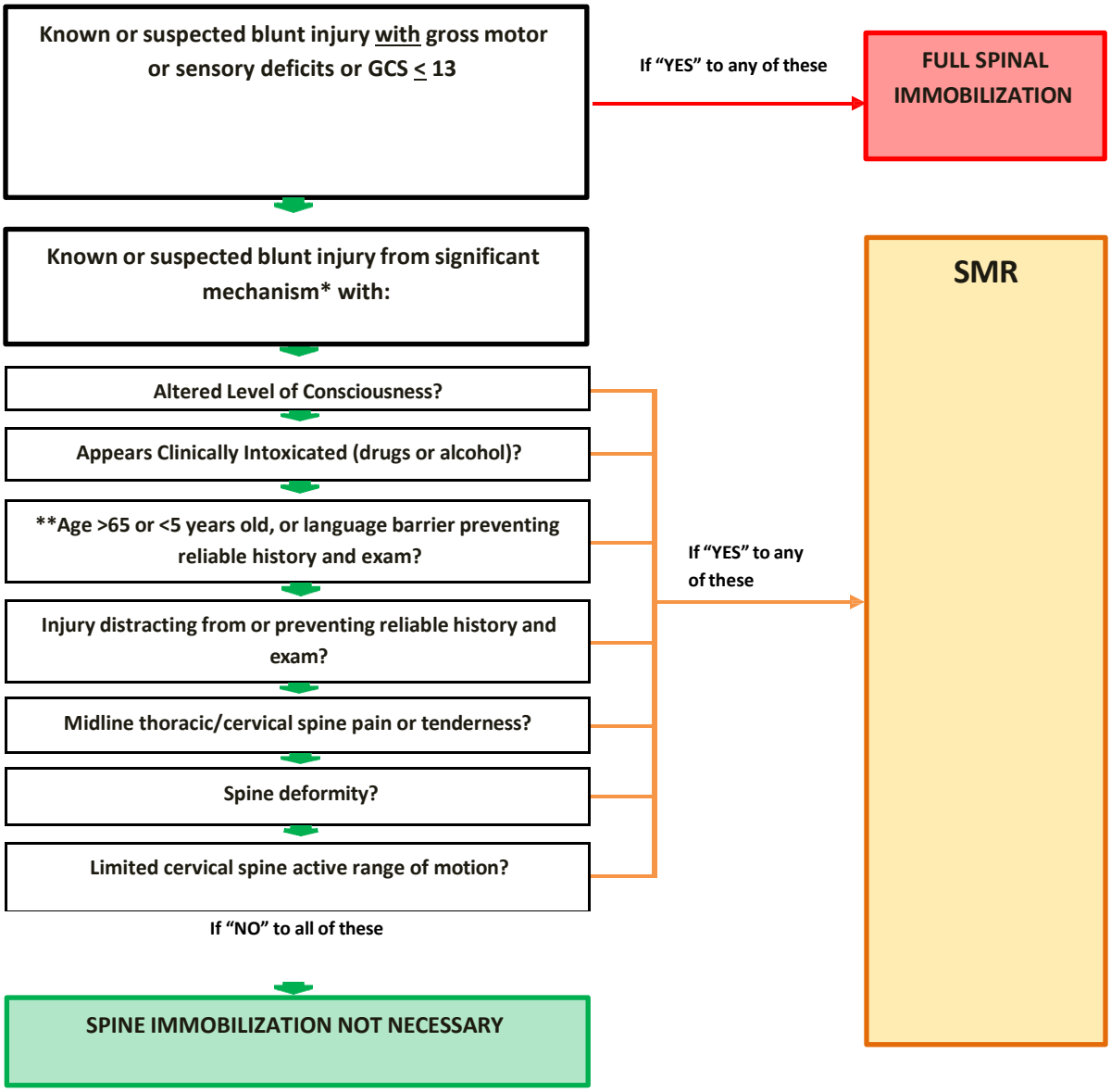
FOCUSED SPINE ASSESSMENT ALGORITHM:



*Significant mechanism includes high-energy events such as ejection, high falls, axial loading, and deceleration crashes and may indicate the need for spinal immobilization.

**High risk populations (<5 or > 65 years old) should be immobilized (with SMR) even in low energy mechanisms.

Consider SMR in any patient with arthritis, cancer, dialysis or other underlying spinal or bone disease.

Any patient may be immobilized based on paramedic discretion.

Document the neurologic/CSM status of the patient before and after SMR or spinal immobilization on the PCR.

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Focused Spinal Exam must demonstrate:

NO DISTRACTING INJURY	Can the patient focus on your exam or are they in severe distress from other injuries or emotional stressors? Suspected fractures, bleeding or joint deformity may be distracting for an individual patient.
NO MOTOR OR SENSORY DEFICITS	1. Assess bilateral grips/pedal pushes/pulls. • In the case of extremity injury they should be able to flex/extend at the ankles and wrists or move fingers and toes. The patient should be able to move all distal extremities 2. Check for sense of touch in all extremities by lightly brushing a gloved hand on each extremity.
NO FOCAL MIDLINE TENDERNESS OR DEFORMITY	Palpate the entire spine on the bony processes one at a time from C-1 to L-5. • The patient may complain of general back or spine pain, but should not have any focal MIDLINE tenderness to palpation or obvious deformity. Deformity would include but not limited to an obvious step off from one level to another or boney crepitus
NO LIMITED RANGE OF MOTION	Ask the patient to gently rotate their head 45 degrees side to side. Do not assist with this process. • If the patient has any pain they should be placed in SMR

Patients should be placed in SMR if any of the findings of these assessments are positive.