

Spinal Motion Restriction (\geq PL1)

Clinical Indications:

1. Potential need for Spinal Motion Restriction (SMR) as determined by patient presentation and assessment.

Contraindications:

1. SMR is not indicated or likely to worsen neuro injury and/or patient condition.

Notes/Precautions:

1. The purpose of this guideline is to assist in determining if SMR is to be used for the patient during transport.
2. The use of a C-Collar may be appropriate and / or necessary based upon patient complaint/condition.
3. If there are any doubts the default is to apply SMR including C-Collar.
4. SMR may be achieved by using any of the following currently approved devices: Ambulance Stretcher or Long Spine Board (LSB) or Scoop Device.
5. The decision to not implement SMR is the responsibility of all providers/responders.
6. In patients that are ≤ 5 and ≥ 65 , a normal exam may not be sufficient to rule out spinal injury.
7. Patient's Range of Motion (ROM) should NOT be assessed if patient has midline spinal tenderness.

Procedure:

Required Exam:

1. Mental status, skin condition, neck, heart, lungs, abdomen, back, extremities, and neuro.

Indications for SMR Following *Blunt* Trauma:

1. Acutely altered level of consciousness, defined as GCS < 15 , evidence of intoxication; for pediatric patients: agitation, apnea, hypopnea, somnolence.
2. Torticollis, patient is unable to move back from abnormal position to normal position.
3. Midline neck or back pain and/or tenderness.
4. Focal neurologic signs and/or symptoms, including numbness or motor weakness.
5. Anatomic deformity of the spine.
6. Distracting circumstances or injury, including long bone fracture, degloving, crush injuries, burns, etc; or any similar injury that impairs the patient's ability to contribute to reliable examination.
7. Involvement in a high-risk motor vehicle collision, high impact diving injury, or has substantial torso injury.
8. Communication barrier caused by emotional, language, and/or cognitive impairment.

IF SMR is Indicated and Requires LSB or Scoop Device

1. Gather the device, straps, c-collar appropriate for patient's size, tape, and head rolls or similar device to secure the head. Explain the procedure to the patient.
2. Second rescuer should maintain the head in a neutral position using in-line stabilization, not traction. Place the patient in an appropriately sized c-collar while maintaining in-line stabilization of the c-spine. If the c-collar will not fit the patient towels or other such materials should be used to stabilize the patients c-spine in lieu of the c-collar.
3. Assess peripheral motor/sensory function and distal pulses.
4. Once the collar is secure, the second rescuer should continue to maintain stabilization.
5. Move patient to a long board using a technique appropriate for the patient position which maximizes maintenances of in-line spinal stability - log roll, four-man lift, rapid extrication, etc.

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6. Secure the body to the long board followed by the head using straps and head rolls/tape or another similar device. Once the head is secured to the backboard, the second rescuer may release manual in-line stabilization.
7. Place padding in void spaces under and around patient, if time permits.
8. Assess peripheral motor/sensory function and distal pulses.
9. Some patients, due to size or age, will not be able to immobilized through in-line stabilization with standard backboards and c-collars. Never force a patient into a position to immobilize them. Such situations may require a second rescuer to maintain manual stabilization throughout the transport to the hospital and continual assessment of distal peripheral motor/sensory function and distal pulses.
10. Document the time of the procedure in the ePCR.

Pearls:

1. If ROM is assessed, the patient should touch his chin to his chest, extend his neck (look up), and turn his head from side to side (shoulder to shoulder) without pain.
2. A LSB may be used to assist in patient movement and extrication. It's use as a patient movement tool alone does not necessarily indicate a requirement for SMR. Provider/Responder judgement and application of this Guideline will determine the need for SMR.
3. Utilization of the LSB should occur in consideration of the individual patient's benefit vs. risk.
4. Whether or not a LSB is utilized, spinal precautions are **STILL VERY IMPORTANT** to perform and document in patients at risk for spinal injury. Adequate spinal precautions may be achieved by placement of a cervical collar and ensuring that the patient is secured tightly to the stretcher, ensuring minimal movement and patient transfers, and manual in-line stabilization during any transfers.
5. If the Provider or First Responder has a concern for spinal cord injury not addressed by these criteria; patients may be SMR at the Provider's/Responder's discretion.
6. If a C-collar will not fit the patient, towels or other such materials should be used to stabilize the patients C-spine in lieu of the C-collar.