	COUNTY OF SACRAMENTO EMERGENCY MEDICAL SERVICES AGENCY	Document #	8844.01
	PROGRAM DOCUMENT: **Spinal Motion Restriction (SMR)**	Draft Date:	06/01/92
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Signature on File	Signature on File
EMS Medical Director	EMS Administrator

Purpose:

A. To establish the prehospital care standard under which prehospital personnel may utilize spinal motion restriction (SMR) for patients with traumatic injuries and establish the requirements and procedures for spinal motion restriction for patients with traumatic injuries.

Authority:

A. California Health and Safety Code, Division 2.5
B. California Code of Regulations, Title 22, Division 9

Indications for SMR:

A. Indications for SMR following blunt trauma include:
   1. Midline neck or back pain and/or tenderness
   2. Altered level of consciousness (e.g., GCS < 15, evidence of intoxication)
   3. Focal neurologic signs or symptoms (e.g., numbness or motor weakness)
   4. Anatomic deformity of the spine
   5. Distracting circumstances (e.g., emotional distress, communication barrier, or age > 65 or < 5 years of age), or injury (e.g., long bone fracture, de-gloving or crush injuries, large burns, etc.) or any similar injury that impairs a patient's ability to contribute to a reliable history and/or examination
B. If the above criteria are not met, but there is still suspicion of a spinal column or spinal cord injury, the patient should be placed in SMR.
C. Prehospital providers may utilize SMR for any trauma patient who, based on their clinical assessment, may have suffered a spinal injury.
D. There is no role for SMR in isolated penetrating trauma.

Procedure:

A. All patients suffering traumatic injuries shall be assessed for the possibility of spinal injury, including history and exam, including a neurologic exam of all extremities and inspection and palpation of the entire spine.
B. Establish and secure an airway while maintaining neutral inline immobilization.
C. Assess the head and neck for obvious injuries and distended neck veins while providing neutral inline immobilization for the head and neck.
D. SMR, when indicated, should apply to the entire spine due to the risk of noncontiguous injuries.
E. An appropriately sized cervical collar is a critical component of SMR and should be used to limit movement of the cervical spine whenever SMR is employed.

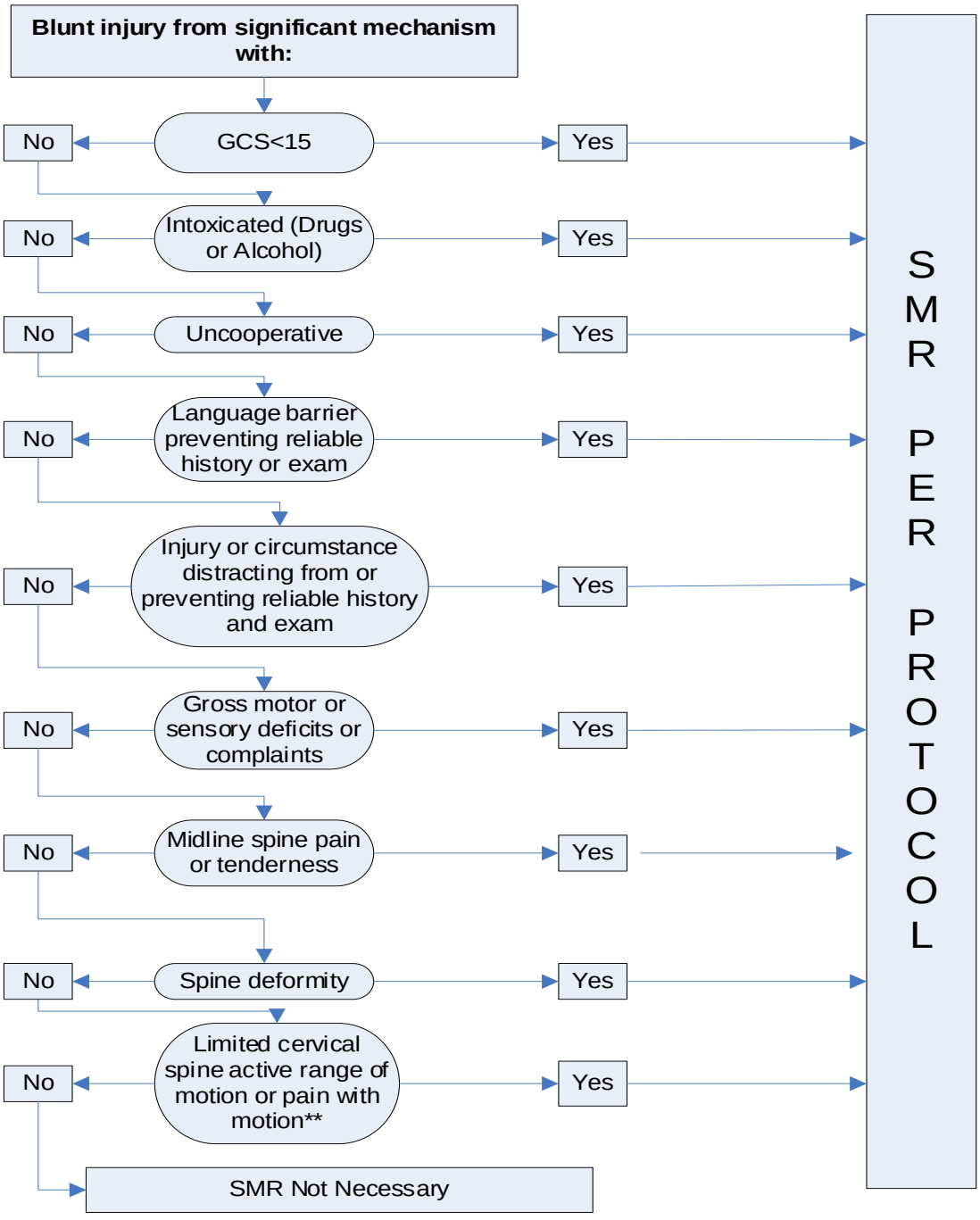
F. The remainder of the spine should be stabilized by keeping the head, neck, and torso in alignment. This can be accomplished by placing the patient supine on a long backboard, a scoop stretcher, a vacuum mattress, or an ambulance gurney.
G. If elevation of the head is required, the device used to stabilize the spine should be elevated at the head while maintaining alignment of the neck and torso. SMR cannot be properly performed with a patient in a sitting position.
H. Transport.

Pediatric Considerations:

A. Age < 2 should be secured in a car seat or appropriate device.
B. Children < 5 years old should be secured with an appropriately sized cervical collar or soft towel roll with tape, if tolerated. If attempts at SMR cause distress, SMR should be minimized.
C. Assessment of the cervical spine in a child under age 8 is difficult in the field and immobilization should be performed if the mechanism of injury warrants it.
D. Use of a pediatric specific backboard is encouraged for patients < 8 years old OR placement of a towel pad to raise the patient's body to insure appropriate spinal alignment on an adult backboard.

Special Notes:

A. Moving the head into a neutral inline position is contraindicated if:
    1. There is pain upon starting movement
    2. There is muscle spasm or back pressure upon attempting movement
    3. The patient holds head angulated (tilted) to the side, and the patient cannot move the head
    4. The head is rigidly held to one side
    5. The maneuver cannot be safely achieved due to space or other considerations
B. In these cases, the patient shall be immobilized in the position in which they are found. SMR does not take precedence over the airway, respiratory, and cardiovascular stabilization of the critical trauma patient.
C. If attempting to apply SMR to a combative patient would cause further detriment, abort the procedure and document in ePCR. Notify ED staff on arrival regarding indications for SMR but the inability to apply due to combative patient.
D. If modified spinal restrictions are used, documentation in the PCR is required to clearly explain why SMR could not be performed.



**If the patient shows no signs of spine injury, the final step of the evaluation is an assessment of cervical spine mobility. The patient should be told to turn their chin to each shoulder, to the chest, and then to look up. If there is no pain or limitation of movement, the cervical spine is cleared.