Guideline

1.0 SCOPE

1.1. Care of the Trauma Services Patient at CCHMC.
1.2. This guideline provides the minimum standard of care for any patient with suspected or confirmed injury to the cervical, thoracic or lumbar spine.

2.0 DEFINITIONS

2.1. **Spine Precautions**: Actions taken to ensure the initiation/maintenance of spinal immobilization during the evaluation and treatment of patients with potential or identified spine injury.
2.2. **Log roll**: A technique used to safely turn patients while maintaining neutral alignment of the spine.
2.3. **Neutral position:** Supine, without rotating or bending the spinal column and with the external auditory canal at the level of the shoulders

3.0 GUIDELINE

3.1. Spinal precautions should be maintained/initiated for any injured patient who:
  3.1.1. Arrives immobilized by EMS
  3.1.2. Complains of neck or back pain
  3.1.3. Has an altered mental status
  3.1.4. Has a neurological deficit
  3.1.5. Has significant head and/or facial injuries
  3.1.6. Has a mechanism of injury concerning for a spinal injury
3.2. Initiation of spine precautions does not require a physician order
3.3. The Physician should enter a “Maintain Spine Precautions” order in EPIC when applicable
3.4. Once a patient is recognized as potentially having a spine injury:
  3.4.1. The patient should be placed/maintained in neutral position on the stretcher with the external auditory canal at the level of the shoulders
    3.4.1.1. Children less than 8 may require special consideration to achieve neutral positioning due to the relatively large head size
    3.4.1.2. Obese patients may require special consideration to achieve neutral positioning to accommodate for their large body size
  3.4.2. Manual in-line immobilization of the patient’s head should be maintained until a properly fitting cervical collar is applied (see Mosby guideline)
  3.4.3. The patient should be removed from the backboard, if present, as soon as possible to reduce the risk of skin breakdown. This is typically done as part of the secondary survey.
  3.4.4. Safe movement/turning of the patient requires use of the logroll technique to maintain neutral anatomic alignment of the entire vertebral column
    3.4.4.1. A minimum of four people is required
    3.4.4.2. One person maintains manual, in-line immobilization of the patient’s head and neck
    3.4.4.3. Two people are placed on the same side of the patient, one to manage the torso (including the pelvis and hips), and one to manage the pelvis and legs
    3.4.4.4. A fourth person is at the patient’s feet and is responsible for managing the legs, removing the backboard and examining the spine
    3.4.4.5. All movement are coordinated/directed by the person responsible for immobilizing the head
3.5. Patients should be accompanied by qualified personnel when transferred to other areas to ensure the maintenance of spine precautions.
3.6. The need for spine precautions should be communicated in the safe handoff process.
3.7. Spine precautions must be maintained until order is discontinued by provider.

4.0 REFERENCES

4.1. Aarabi, B. and others. (2013). Management of acute traumatic central cord syndrome (ATCCS). *Neurosurgery, 72*(Suppl. 2), 195-204. doi:10.1227/NEU.0b013e318276f64b

4.2. National Association of EMS Physicians and American College of Surgeons Committee on Trauma. (2013). EMS spinal precautions and the use of the long backboard. *Prehospital Emergency Care, 17*(3), 392-393. doi:10.3109/10903127.2013.773115

4.3. Sundstrøm, T. and others. (2014). Prehospital use of cervical collars in trauma patients: A critical review. *Journal of Neurotrauma, 31*(6), 531-540. doi:10.1089/neu.2013.3094

5.0 APPROVALS

All revisions of this guideline are approved by the Trauma Services Department. This guideline is reviewed every three years or sooner if deemed necessary. Authority for this document resides with the Trauma Services Department. This guideline is approved by the Trauma Service Manager and the Director of Trauma Services.

HISTORY
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