Spinal Motion Restriction

Procedure

Douglas County KS EMS System **March 2022**

Approved Provider: EMR, EMT, AEMT, Paramedic
Reference Protocols: General Trauma, Spinal Care

C-Collar Indications

The following patients will require C-Collar application

- Patient complains of neck or cervical spine pain
- Any midline cervical spinal tenderness with palpation
- Altered mental status with concerning mechanism of injury
- Any neurologic deficit
- Any evidence of alcohol or drug intoxication with presence of trauma
- Another severe or painful distracting injury is present (e.g. orthopedic injury, etc.)
- A communication barrier that prevents accurate assessment with concerning mechanism of injury.

If none of the above apply, the patient may be managed without a cervical collar

Long Spine Board/ Scoop Indications

The following patients will require LSB/ scoop application for movement to the ambulance

- Major deformity or injury to midline neck or back
- Major Neurological deficit
- Pain produced in midline neck or back on attempted movement by other means
- Severe decreased LOC associated with significant mechanism of injury

Relative Contraindications

- Patients with isolated penetrating traumatic injuries should **NOT** be immobilized unless a focal neurological deficit is noted on physical examination.

Precautions

- Use caution for occult fracture in age >65 or <4 years of age or history of osteoporosis, bone or vertebral disease.
- Helmets and shoulder pads should be left in place unless the head and neck cannot be properly immobilized or if the airway is compromised. The face mask should be removed prior to transport.
- Do not remove LSB/ Scoop stretcher from under the patient once on the cot if doing so will delay treatment or transport of critically unstable patient.

C-Collar Procedure

- Manually Stabilize the head and neck in a neutral position
- Size an appropriately cervical collar using 3 finger method
- Apply cervical collar avoiding unnecessary movement of head and neck
- If movement causes pain or resistance is met immobilize the head and neck in the position found.
- Patients that are stable, alert and without neurological deficits may be allowed to self-extricate to the ambulance cot while limiting spinal movement after a c-collar has been placed.

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Long Spine Board Procedure (Fig. 1)

- Apply C-Collar per above procedure
- Roll Pt onto uninjured side of possible
- Assess back of pt for DCAP-BTLS
- Position LSB or Scoop behind pt
- Roll pt back onto board and secure with Spider Strap for movement to cot (Fig. 1)
- ***Remove LSB once on the cot unless doing so will delay treatment/ transport of critically unstable pt***

Scoop Stretcher Procedure

- Apply C-Collar per above procedure
- Position scoop stretcher on either side of the patient with sides disconnected
- Connect either top or bottom of the scoop stretcher together underneath the patient
- Connect other part of the scoop stretcher underneath the patient while being careful of excessive movement
- Move patient on scoop stretcher to the cot
- ***Remove Scoop stretcher once on the cot unless doing so will delay treatment/ transport of critically unstable pt***

Notes

A scoop stretcher or long spine board may be used for extrication, but it should be removed once on ambulance cot unless logistics prevent timely removal.
Do not transport patients on rigid longboards, unless the clinical situation warrants longboard use (e.g. unstable patient where removal of a board will delay transport and/or other treatment priorities such as airway management, or further resuscitation)

Providers should not manually stabilize (aka: hold c-spine) alert and spontaneously moving patients, since patients with pain will self-limit movement, and forcing immobilization in this scenario may unnecessarily increase discomfort and anxiety

- The preferred position for all patients with spine management is flat and supine.
- Pregnant patients may be allowed to lay on their side (left side) if more comfortable while flat on the cot. They may also require manual, lateral displacement of uterus to the left if circumstance requires them to be supine to avoid hypotension.

There are special circumstances under which raising the head of the bed to 30 degrees should be considered:

- Respiratory distress/airway/oxygenation/ventilation management issues
- Suspected isolate severe head trauma with concerns for elevated ICP

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Fig. 1