PURPOSE

To outline safe workplace process in the use of the fracture board and Quick Connect Spinal Immobilization System (QC) for lifting and transferring / transporting of patients.

APPLICATION

Paramedics, EMAs, Paramedic Superintendents, Senior Managers

PROCEDURE

Rationale for Use

The paramedic shall:

1. Consider spinal motion restriction (SMR) for any patient with a potential spine or spinal cord injury, based on mechanism of injury, such as, a. any trauma associated with complaints of neck or back pain, b. sports accidents (impaction, falls), c. diving incidents and submersion injuries, d. explosions, other types of forceful acceleration/deceleration injuries, e. falls (e.g. stairs), f. pedestrians struck, g. electrocution, h. lightning strikes, or i. penetrating trauma to the head, neck or torso;

2. If the patient meets the criteria listed in paragraph 1 above, determine if the patient exhibits ANY risk criteria, as follows, a. neck or back pain, b. spine tenderness, c. neurologic signs or symptoms, d. altered level of consciousness, e. suspected drug or alcohol intoxication, f. a distracting painful injury (any painful injury that may distract the patient from the pain of a spinal injury), g. anatomic deformity of the spine, high-energy mechanism of injury, such as, i. fall from elevation greater than 3 feet/5 stairs, ii. axial load to the head (e.g. diving accidents), iii. high speed motor vehicle collisions (≥100 km/hr), rollover, ejection, iv. hit by bus or large truck, v. motorized/ATV recreational vehicles collision, or vi. bicyclist struck or collision, or i. age ≥65 years old including falls from standing height;

3. If the patient meets the criteria of paragraph 1 above, but does not meet the criteria of paragraph 2 above, not apply SMR;

4. Subject to paragraph 6 below, if the patient meets the requirements of paragraph 2 above, apply SMR using a cervical collar only*, attempt to minimize

spinal movement, and secure the patient to the stretcher with stretcher straps (see Guideline below);

5. If the patient has penetrating trauma to the head, neck or torso, determine if the patient exhibits ALL of the following, a. no spine tenderness, b. no neurologic signs or symptoms, c. no altered level of consciousness, d. no evidence of drug or alcohol intoxication, e. no distracting painful injury, and f. no anatomic deformity of the spine; and

6. Notwithstanding paragraph 4 above, if the patient meets the criteria of paragraph 5, not apply SMR.

*Note: Spinal boards or adjustable break-away stretchers may still be indicated for use to minimize spinal movement during extrication

Description

The long spine board is constructed of:

- 2.5" vacuum molded plastic without seams make it easy to clean and decontaminate. The board features 14 large raised handholds to make it easy to grab, even with heavy gloved hands. Pins are carbon fibre tubes molded into the board, maximizing their strength. The board Includes strap holes for pediatric patients, eliminating the need to use towels to fill the extra space between patient and strap and is radiolucent.
- 1.7 cm (3/ 4), 7 - 9 ply hardwood covered in a “Phenalic” finish which is impervious to body fluids and which allows for rapid and effective clean up using house-hold cleaners and/or bleach. There is a “shock absorber” located around the perimeter of the board to help protect the board from “contact” damage. The Retroreflective stripe located on the board aids in identifying the board in low light situations. Fourteen integral anchoring pins within the spinal board allows for effective immobilisation of a variety of patient body sizes. The pins allow x-ray penetration of the board. Each of the pins can support approximately 400 lbs of weight.

Procedure for Use

Body immobilization methods are dependent on the patient’s injuries/ condition and the clinical situation. Great care must be taken to prevent further injury to the

spinal cord. Movement of the patient should be kept to an absolute minimum during treatment and transport.

- The patient's neck should be stabilized with the use of a rigid cervical collar and manually controlled until the patient is fully secured on the board.
- Placement of the patient on the long spine board can be accomplished by using the log roll technique, scoop stretcher or by utilizing the KED.
- The long spine board should be placed next to the patient and positioned so that their head and feet will both be on the board when the patient is rolled/placed onto the board.
  NOTE: It may be advantageous to place padding under the posterior side of the patient to fill in their body hollows (i.e. under the knees).
- The patient should be securely immobilized onto the long spine board. Objects should be removed from contact with the patient to help prevent pressure.
- If the patient is slim, a blanket roll may be placed along each side of the patient prior to strapping or if using the BaxStrap board the paediatric strapping methods can be utilized.
- Four safety straps are provided with each board. The straps have "clasps" on one end which are fitted to an anchoring pin as selected by the operator. On the other end of the strap is either a "tang" or" receptacle" (automotive style) buckle.
- The straps are applied in a cross-strap pattern across the chest. Snug up the straps so that the patient upper body is securely immobilized. Take great care that the patients' breathing is not restricted by the safety straps.
- A horizontal strap is placed over the hips and knees of the patient unless contraindicated by injuries in those areas where a cross-strap technique or different strap position can be considered.
- A rolled towel is placed on each side of the patient's head. And secured in place by attaching tape or a roll bandage across the patient's forehead and under the spinal board must attach tape under the chin as well.
- Consider occipital padding to maintain neutral alignment
- All lifting procedures are to be verbalized/ communicated to each other and the patient prior to commencement. Movements are to be smooth and coordinated using appropriate lifting procedures.
- Generally, a figure-of-eight bandage is required around the patients' feet, to help keep the legs "in line".
- Various patient injuries and call circumstances may require adapting the strapping system; however, patients should always be "secured".

For more detailed instructions, please refer to your in-service training, document references and user's manual and Basic Life Support Patient Care Standards Version 3.0.1 Section 1 General Standard of Care.

Storage

After each usage it is to be stored safely and according to our existing policy "Securing Equipment (Policy and Procedure G. 6.11.).

Cleaning

This device is to be disinfected after each usage according to "Disinfection of Vehicles and Patient Care Equipment", (Policy and Procedure G. 8.4.3

REFERENCE

Manitoulin-Sudbury District Services Board, Vehicle & *Equipment*, 2019, Policy & Procedures G.5.1.

Ministry of Health and Long-Term Care, Emergency Health Services Branch, 2005, *Quick Connect Spinal Immobilization System.*

Ministry of Health and Long-Term Care, Emergency Health Services Branch, *Basic Life Support Patient Care Standards Version 3.0.1 Section 1 General Standard of Care.*