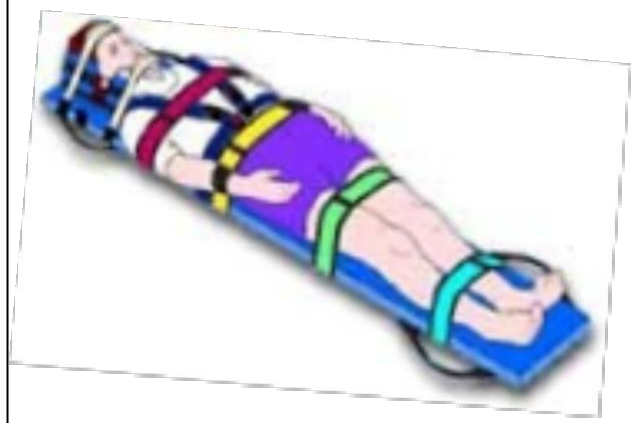
Spinal Motion Restriction Management in DI



Developed by:
Edmonton Zone
Community of Shared Learning (CoSL)

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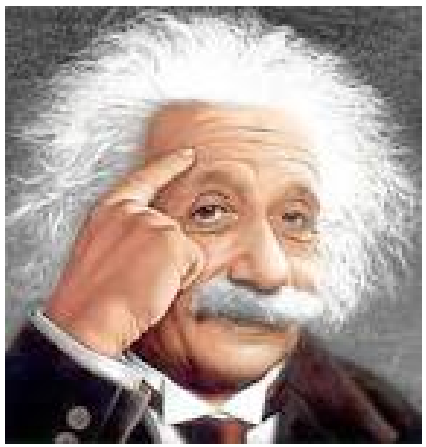
Spinal Immobilization vs Spinal Motion Restriction

Spinal Immobilization:

- Immobilization of the spine with application of a c-collar along with use of a long backboard to provide rigid spinal support.



Benefit of immobilization using c-collars and long backboards for all suspected spinal injury patients is largely unproven. Immobilization has been shown to have little or no effect on neurological outcomes and in fact, use of these interventions has been proven to cause harm.



The use of an intervention known to do harm cannot be justified for the very small possibility of benefit. This is a risk/benefit decision, and led to the introduction of Spinal Motion Restriction for suspected spine injury patients.

Spinal Motion Restriction (SMR):

- Reduction or limitation of spine movement with stabilization of the spine in a neutral position

- SMR emphasizes the need to immobilize those patients with a significant potential for an unstable spine fracture and to use alternative methods of maintaining spine precautions for those with lower risk.



Spinal Motion Restriction (SMR) for trauma patients is determined by EMS or ER staff based on:

- Level of consciousness
- Complaints of pain or tenderness in head, neck or back
- Obvious neurological deficits
- Facial/head injuries
- Mechanism of injury
- Lack of a reliable history/exam

- Maintain patient safety and comfort
- Prevent further injury
- Maintain spinal alignment and stabilize the spine



Patient packaging is no longer a contextual clue to guiding spinal motion restriction.

- Cervical collars are used for actual or suspected cervical spine injury
- Collars are tools to aid in spinal motion restriction
- **Do not rely** on a collar by itself to adequately immobilize a patient's cervical spine
- There are different types of c-collars, with the main two encountered in AHS being Stiffneck® Collars and Philadelphia® Collars



Stiffneck® Collar

- Applied to trauma patients by EMS or ER personnel to immobilize c-spine until cleared clinically or radiographically



Philadelphia® Collar



- More comfortable 2 piece soft collar that maintains optimal alignment and can be selected to fit the patient more appropriately than a Stiffneck Collar (fitted by OT)
- Anterior portion can be removed for skin care without compromising neck alignment

Sandbags, blocks or towel rolls may be placed on each side of the patients head, with or without a collar, for added c-spine stabilization



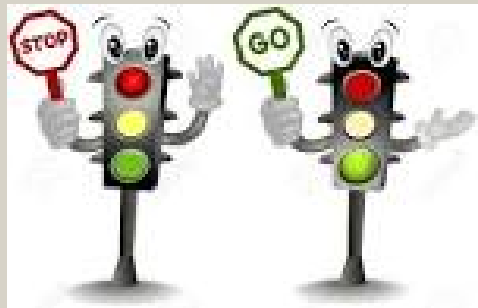




Patients with spinal motion restrictions shall arrive in DI prepared for the imaging procedure. Prior to transfer to the department patients:

- Shall be placed on a slider board
- Shall be accompanied by a **healthcare professional appropriately trained in spinal motion restriction management**
- Should be assessed by a physician/NP
- Should have all street clothing and jewellery removed

Failure to comply with the appropriate patient preparations may result in imaging procedure delays



Spinal Motion Restriction Patients in the Diagnostic Imaging Department

The **appropriately trained healthcare professional (HCP)** accompanying the patient shall:

- At the discretion of the healthcare team, **remain with the patient in DI** for the duration of the imaging procedure.
- **Lead all** transfers, movement or repositioning of the patient

Spinal Motion Restriction Patients in the Diagnostic Imaging Department

There are 4 basic types of transfers/lifts/movements that may be required for a spinal motion restriction patient in Diagnostic Imaging

- Lateral transfer on sliding board
- Lift using a lifting sheet
- Lift using the direct lift method
- Logroll



Transfers, Lifts and Logrolls in the Diagnostic Imaging Department

Many of the elements of the transfer/lift/roll procedure will be the same regardless of the type of movement being performed:

As the **Team Lead,** the **appropriately trained HCP shall:**

- ☐ Confirm Spinal Motion Restriction orders on patient chart
- ☐ Perform the pre- and post-transfer/lift/roll patient assessments
- ☐ Determine the number of staff required for the transfer/lift/roll
- ☐ Share all relevant patient information with the team
- ☐ Explain procedure to patient and assess patient's ability to cooperate
- ☐ Provide head and neck stabilization for c-spine SMR patients
- ☐ Ensure spinal alignment is maintained at all times
- ☐ Complete all required documentation regarding patient movement, alignment and condition

Transfers, Lifts and Logrolls in the Diagnostic Imaging Department

Diagnostic Imaging personnel shall:

- Confirm imaging order in patient chart
- Ensure suction is ready for use
- Provide assistance under the direction of the appropriately trained HCP
- Provide appropriately trained HCP with adequate time to perform the required pre- and post-transfer/lift/roll patient assessments
- Enter “Tech Notes” in RIS if required
- Never remove spinal collar or manipulate patient in any way contrary to Spinal Motion Restriction management
- Never allow a student to perform an imaging procedure on a patient on Spinal Motion Restrictions without **direct supervision**

Transfers, Lifts and Logrolls in the Diagnostic Imaging Department

These steps will be the same regardless of the type of transfer/lift/movement being performed:

- Ensure the stretcher/table is at the correct height for the group and brakes are on
- Ensure all IVs, tubes, catheters, etc are appropriately positioned
- The **appropriately trained healthcare professional (AT HCP)** stabilizes the patient's head and neck throughout the process for all c-spine SMR patients
- The **AT HCP** communicates with patient and assistants throughout the process
- All participants practice It's Your Move principles for maximum safety and to avoid injury

Transfers, Lifts and Logrolls in the Diagnostic Imaging Department

There are also specific considerations and steps for each individual type of transfer/lift/movement being performed :

Lateral Transfer on Sliding Board:

- This should be the most common type given that the spinal motion restriction patient is expected to arrive in DI on a sliding board
- A **minimum** of 3 people are required
- The AT HCP will stabilize the head and neck for all c-spine SMR patients
- The AT HCP will direct assistants to move patient as required
- It is imperative that everyone use It's Your Move principles for maximum safety and to avoid injury

Transfers, Lifts and Logrolls in the Diagnostic Imaging Department

Lift using a lifting sheet:

- A lift utilizing a lifting sheet under the patient
- To be used only for repositioning the patient on a surface – not for transfers
- The **appropriately trained healthcare professional (AT HCP)** will determine the number of people required based on factors such as injuries present and size of patient
- **AT HCP** stabilizes the patient's head and neck throughout the process for all c-spine SMR patients
- The **AT HCP** communicates with patient and assistants throughout the process
- It is imperative that everyone use It's Your Move principles for maximum safety and to avoid injury

Transfers, Lifts and Logrolls in the Diagnostic Imaging Department

Lift using the direct lift method:

- The AT HCP will determine the number of people required to assist based on factors such as injuries present and patient size
- To be used only for repositioning the patient on a surface – not for transfers
- The AT HCP will stabilize the head and neck for all c-spine SMR patients
- The AT HCP will direct assistants to move patient as required
- The assistants are on the side of the patient that you are moving toward; the assistants slide their arms directly under the patient, with at least one assistant supporting the upper and mid spine while another assistant supports the lower spine and legs
- It is imperative that all participants use It's Your Move principles for maximum safety and to avoid injury

Transfers, Lifts and Logrolls in the Diagnostic Imaging Department

Logroll:

- The number of people required will be determined by the **AT HCP** and will depend on the reason for the logroll and the area of the spine that is injured
- The **AT HCP** stabilizes the patient's head and neck throughout the process for all c-spine SMR patients
- The **AT HCP** communicates with patient and assistants throughout the process
- It is imperative that all participants use It's Your Move principles for maximum safety and to avoid injury

Spinal Motion Restriction Patients in the Diagnostic Imaging Department

DON'T FORGET ABOUT HAND HYGIENE!!



Questions?

It’s time for some hands on practice!



