



Queensland
Trauma Education

WARD TRAUMA CARE

Log roll with spinal precautions

Procedural skill

Facilitator resource kit

CSDS



Clinical Skills Development Service



Queensland Trauma Education

The resources developed for Queensland Trauma Education are designed for use in any Queensland Health facility that cares for patients who have been injured as a result of trauma. Each resource can be modified by the facilitator and scaled to the learners needs as well as the environment in which the education is being delivered, from tertiary to rural and remote facilities.

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Queensland Trauma Education

**Ward trauma care – Log roll with spinal precautions: Procedural skill – Facilitator resource kit
Version 1.0**

Published by the State of Queensland (Clinical Skills Development Service), 2022



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About this training resource kit

This resource kit provides procedural skill experience for the performance of log rolling with spinal precautions in the ward care setting following trauma.

National Safety and Quality Health Service (NSQHS) Standards



Target audience

Ward medical and nursing clinicians

Duration

15-30 minutes

Group size

Suited to small group participation.

Learning objectives

By the end of this session the participant will be able to:

- Understand the process for maintaining spinal precautions during performing a log roll.
- Demonstrate the ability to perform a log roll.
- Describe complications that may arise from patients who require spinal precautions.

Facilitation guide

1. Demonstrate process for performing log roll on manikin using case examples.
2. Discuss indications and further management with question guide.

Overview of spinal precautions

Patients are often managed with spinal precautions in scenarios in which the spine has not yet been deemed 'cleared from injury', in the case where diagnostic imaging has not yet been performed, or as a treatment modality in patients in which a spinal injury has been identified.

The aim of using spinal precautions is to prevent secondary injury by minimising movement of potentially unstable bony segments and worsening cord injury.

In addition to keeping the patient supine, log rolls may be utilised for pressure area care, to examine the patients back and occiput and perform hygiene cares.

The aim of further management is to have clearly documented clearance and management plans for ongoing spinal injury care.

Further reading

The Royal Melbourne Hospital Trauma Service	
Publication	TRM08.04 Management of the Patient with Spinal Precautions
Link	https://bit.ly/3QE7iaf

Procedural skill

Resources required

Equipment	<ul style="list-style-type: none">• 4-5 participants• Manikin• Cervical collar
Delivery tool	Facilitator demonstrated

Case 1

78-year-old lady has been admitted to the ward after a fall at home. She has been assessed in the Emergency Department and her CT scan has demonstrated a three-column injury at T6. She has no neurological deficits and has had spinal precautions documented as per the Spinal teams plan as this is an unstable injury.

Case 2

65-year-old man is visiting a relative on the ward. He trips and falls at the entrance to the ward. He is awake but complaining of neck pain. The wardsmen arrive with a bed and spinal board to transfer the patient to ED for assessment.

Case 3

A 26-year-old man has been admitted to the ICU after a high speed RTC. He has multiple rib fractures on the L with an ICC to manage his haemothorax. In addition, he has sustained a grade 3 splenic injury and L tibial fracture which has been placed in a cast. He has a C4 fracture with widening of the spinus processes and a wedge fracture of T12 with 30% loss of height.

Log roll procedure

1. Assess need for additional analgesia prior to the log roll.
2. Assemble all required equipment including replacement dressings/wound care/sheets.
3. Assemble the team with 4-5 team members.
4. Ensure the cervical collar is well fitted.
5. Confirm the height of the bed for the team performing the log roll.
6. Prepare the patient by giving clear instructions to lie still, cross arms over chest (as able) and allow the team to move them. Reassure the patient that they will be supported throughout the process.
7. Secure lines, drains and tubes.
8. Ensure the team are prepared: use Ready, Steady, Roll.
9. Allocate team members to specific roles.
10. Ensure the turn occurs in a smooth action with the patient's head, neck and body remaining in alignment.
11. Ensure each team member cross links arms to provide stability.

Team members

Team member 1	Hold the patients head from each side. Use hands to stabilise against the shoulders and forearms to support the head. This team member controls the log roll and determines the angle for roll and assessment (15 vs 60 degrees). Attention to alignment, avoidance of rotational movements and repositioning of the patient at the end of the log roll.
Team member 2	Supports the upper body with hands on the shoulder and hip.
Team member 3	Supports the abdomen and legs with hands on the hip and legs.
Team member 4	May be required with additional injuries (e.g., management of limb fractures).
Team member 5	Conducts the back assessment, hygiene and pressure care as required.

Question and answer guide

1. What are 'spinal precautions' used for?

Spinal precautions are the term used to describe the care taken to continue immobilisation until spinal injury has been excluded or a definitive management plan is documented.

2. What techniques constitute spinal precautions?

This may involve the use of log rolls, cervical collars and the prevention of excessive movement of the patient when delivering cares.

3. How many people are required to perform a log roll?

Four to five depending on the purpose, size of the patient and additional injuries.

4. Why use 'Ready Steady Roll'?

When using numbers to indicate the timing of the log roll, team members may be confused. There can be confusion if the roll occurs on or after the team leader says the number '3'. By using 'Ready Steady Roll' the team can be coached to start the movement on the word 'Roll'.

Local systems will guide the *terms* and *timing* suitable for local practice.

5. If the patient requires spinal precautions does the bed need to be flat?

No, the bed may be tilted to allow the patient to be 30 degrees head up elevation. This improves the ability of the patient to eat, drink and improves their mental health and wellbeing.

Supporting resources

The following resources are provided for this case discussion.

Logrolling (Log n Roll) ATLS	
Link	https://youtu.be/fY7SAR5RXbY

Acronyms and abbreviations

Term	Definition
CT	Computed Tomography
ED	Emergency Department
ICU	Intensive Care Unit
ICC	Intercostal Catheter

References

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