CLINICAL PRACTICE STANDARD — Aeromedical Operations
AO.CLI.07 – Pelvic Trauma

Document No.	WI2023-093
File No.	D35035/23
Date issued	14 December 2023
Contents	**Clinical Practice Standard** AO.CLI.07 – Pelvic Trauma
	Appendices N/A
Associated Policy Directive/s and/or Operating Procedures/s	Ambulance Protocol 106.15 – Pelvic Splint T-POD HELI.CLI.13 - Pre-hospital Trauma Triage
Directorate	Aeromedical Operations
Author Branch	
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Summary	This procedure provides guidance on the management of pelvic trauma during retrieval missions.
Applies to	NSW Ambulance aeromedical clinical crew.
Review Date	July 2025
Previous Reference	Nil
Status	Active
Approved by	Executive Director, Aeromedical Operations
Related Legislation	Nil
Related Documents	Nil

CLINICAL PRACTICE STANDARD – Aeromedical Operations – HELI.CLI.07 – Pelvic Trauma

1. Introduction

Pelvic injuries are commonly seen in patients suffering major trauma and are associated with significant morbidity and mortality. The signs of pelvic injury are often subtle and difficult to detect in the pre-hospital assessment. Early pelvic splinting with a pelvic binder is a vital intervention in the pre-hospital phase of trauma resuscitation.[1] This document is a guide to the assessment and management of patients with pelvic trauma.

2. Purpose

The purpose of this procedure is to identify, assess and manage patients at risk of pelvic injury.

3. Procedure

3.1 Pelvic injury should be suspected in:

- Multi-trauma patients with hypotension
- Motor vehicle collisions
- Vehicle collisions involving pedestrian / cyclist / motorcycle
- Falls from height
- Falls from a horse
- Crush injuries
- Patients > 65 years of age.

3.2 Signs and symptoms suggestive of pelvic injury include:

- Abdominal, pelvic or lower back pain
- Presence of unexplained hypotension
- Inability to straight leg raise
- Leg length discrepancy
- Scrotal or labial swelling
- Flank ecchymosis
- Open lacerations or abrasions in the pelvic region
- Blood at urethral meatus.

3.3 Pre-hospital management of pelvic trauma:

- Patients at risk of pelvic trauma who are conscious and alert and have signs or symptoms of pelvic trauma should have a pelvic binder device applied.
- Patients at risk of pelvic trauma with altered mental status should be assumed to have pelvic trauma and should have a pelvic binder device applied.
- Assessment of patients with a possible pelvic injury is unreliable and clinicians should treat patients with a pelvic binder if there is any doubt as to the presence of pelvic injury.
- Assessment of the pelvis consists of full exposure and careful inspection for the subtle initial signs of a pelvic injury.
- Rocking or springing of the pelvis is unreliable as an indicator of significant pelvic trauma and *should not be performed*. This process may cause clot disruption and increase haemorrhage.
- NSW Ambulance Aeromedical currently carries the T-Pod device for pelvic binding. All staff should be familiar with NSW Ambulance Protocol 106.15 - Pelvic Splint T-Pod.
- Every effort should be made to minimize patient movement and clot disruption during transfers. NSWA vehicles carry a combi-board, which should be used to avoid excessive log-rolling. Gentle tilting for removal of clothing, visual inspection of the posterior elements and insertion of a pelvic binder and combi-board should occur in gentle, coordinated movement. The pelvic binder can be folded in half at a ninety-degree angle and passed under the patient during the first roll and unfolded during the subsequent roll to be aligned with the greater trochanters. Alternately the pelvic sling should be placed the bed or board prior to the extrication phase.
- Current NSW Ambulance protocol recommends the application of a T-Pod as initial management for pelvic trauma. It is essential that the retrieval team confirm the correct placement of the pelvic splint in relation to the greater trochanters, being aware that the device may migrate during movement. Pelvic binding has been shown to reduce mortality following major pelvic trauma and should be applied as early as possible during the pre-hospital resuscitation phase.
- Concurrent femoral shaft fractures may be immobilised using the Slishman femoral traction Splint. Femoral traction is not contra-indicated in patients with pelvic fractures as this method of traction does not rely on the presence of an intact pelvic ring. The pelvic sling should be placed before the femoral traction splint. If they are already in situ in a patient with suspected pelvic fracture they will need to be temporarily loosened, with the femurs held in traction manually by an assistant, to allow application of the pelvic sling.
- Once applied, a pelvic splint should remain in situ until pelvic ring injury has been definitively excluded, usually by CT.
- Further clinical management of the patient will be determined by concomitant injuries and co-morbidities with expressed parameters based on a considered clinical judgement of the medical team.

3.4 Transport of the patient with pelvic trauma:

- Within the Sydney Basin and immediate surrounds, patients with pelvic trauma should be taken to the nearest Major Trauma Centre (see HELI.CLI.13 - Pre-hospital Trauma Triage). Consideration of the need for angiographic embolization should guide the triage decision and should be communicated to the receiving hospital.
- Outside the Sydney Basin, patients with pelvic trauma should be triaged to the nearest trauma centre within 90 minutes of transport time. **In rural areas this may be a Regional Trauma Centre.**
- Patients under the age of 16 years with pelvic trauma should be preferentially triaged to a Paediatric Major Trauma Centre. These are Sydney Children's Hospital, Westmead Children's Hospital and John Hunter Hospital in Newcastle.
- Suspicion of major pelvic trauma in a hypotensive patient should prompt a request for interventional radiology services to be mobilised at the time of the initial prehospital notification to the receiving hospital.

4. References

- [1] Croce et al; "Emergent fixation for Pelvic Fractures" Journal of American College of Surgery, 2007; 59 (1); 935-9.
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- [1] Pryor JP et al; "Initial care of the patient with blunt polytrauma" Clinical Orthopaedics and Related Research, 2004 422: 30-36.
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APPENDICES

N/A

REVISION HISTORY

Version (Document #)	Amendment notes
Version 5.0 WI2023-093 Issued 14 December 2023	Minor updates – T-Pod and Slishman now carried by NSWA road paramedics 90min T1 timing updated for Rural Trauma
Version 4.0 WI2020-065 Issued 13 May 2020	Minor amendments. Approved by Executive Director, Aeromedical Operations.
Version 3.0 Issued 16 September 2016	Minor amendments, and transition to new format. Approved by Executive Director, Health Emergency & Aeromedical Services.
Version 2.0 Issued April 2013	Approved by Executive Director, Health Emergency & Aeromedical Services.