Clinical Practice Guidelines: Trauma/Pelvic injury

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<tr>
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<th>CPG_TR_PI_0215</th>
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<tr>
<td>Date</td>
<td>February, 2015</td>
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<td>Purpose</td>
<td>To ensure a consistent approach to the management of a patient with a pelvic injury.</td>
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<tr>
<td>Scope</td>
<td>Applies to Queensland Ambulance Service (QAS) clinical staff.</td>
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<td>Health care setting</td>
<td>Pre-hospital assessment and treatment.</td>
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<tr>
<td>Population</td>
<td>Applies to all ages unless stated otherwise.</td>
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<tr>
<td>Source of funding</td>
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Pelvic injuries are potentially life threatening and require early identification and management.

The pelvis is extremely vascular with many blood vessels situated close to the pelvic bones. Pelvic fractures may cause disruption of these blood vessels and subsequent internal haemorrhage, shock and death.\(^1\)

The paediatric pelvis is more compliant, making it less likely to fracture, but the force is transmitted to the underlying organs.

In most instances considerable force may be required to fracture the pelvic bones, therefore associated intra-abdominal and pelvic organ injuries should always be considered.\(^1\)

The application of circumferential pelvic binders in patients with suspected pelvic fractures can reduce fractures and stabilise the pelvic ring which will help to decrease active bleeding.\(^2\)

Pelvic trauma should be suspected in all patients with significant mechanism of injury, in particular, patients with haemodynamic instability after trauma.

### Clinical features

**Common mechanisms of injury resulting in pelvic fracture include:**
- traffic, pedestrian and motorcyclist collisions
- falls from heights
- crush.

**Signs and symptoms of pelvic trauma include:**
- pain
- bruising:
  - scrotal or vulval
  - flanks (retroperitoneal)
- bleeding:
  - urethral meatus (urethral/prostate/bladder injury)
  - vaginal (vagina/uterus/bladder injury)
  - rectal (bowel perforation)
- pelvic asymmetry/shortening of limb
- decrease of lower limb pulses
- reduced or absent sensation or power in lower limbs
- haemodynamic instability and shock

Ultrasound investigation (FAST scan) may reveal free fluid in the pelvis.\(^3\)
Clinical features (cont.)

**Note: Pelvic springing is not to be performed.**

Springing of the pelvis may disrupt sacral clots and cause further haemorrhage and pain. In addition to this, clinical assessment of the pelvis has a low sensitivity for diagnosing pelvic fractures.[4]

Risk assessment

- Nil in this setting

### CPG: Clinician safety

**CPG: Standard cares**

**Evidence of shock/haemodynamic compromise?**

- **Y**
  - Apply pelvic binder
  - Manage as per: CPG: Hypovolaemic shock
    - Consider:
      - Other injuries
      - Analgesia
      - FAST
  - Transport to hospital
  - Pre-notify as appropriate

- **N**
  - Place pelvic binder under patient (leave open)
  - Consider:
    - Other injuries
    - Analgesia
    - FAST

**Note: Clinicians are only to perform procedures for which they have received specific training and authorisation by the QAS.**