Clinical Practice Guidelines:
Trauma/Hypovolaemic shock

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<th>Date</th>
<th>April, 2016</th>
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<tr>
<td>Purpose</td>
<td>To ensure a consistent approach to the management of a patient with Hypovolaemic shock.</td>
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<td>Scope</td>
<td>Applies to all QAS clinical staff.</td>
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<tr>
<td>Author</td>
<td>Clinical Quality &amp; Patient Safety Unit, QAS</td>
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Acute haemorrhage, secondary to trauma, is the major cause of hypovolaemic shock. However, non-haemorrhagic causes must be considered, (i.e. gastro-intestinal (GI) losses, environmental exposure and neglect).

Blood loss can be ‘hidden’ and not immediately apparent (i.e. pelvic injury, ruptured ectopic pregnancy, GI haemorrhage or intracranial bleeding in small children).

Awareness of the clinical features of shock is of paramount importance, as early recognition of hypovolaemia can be life-saving. Assessment of volume status extends beyond the vital signs and requires a comprehensive review of the patient. ‘Treat the patient, not the vital signs.’¹

The prehospital measurement of external blood loss is inherently inaccurate,² ³ ⁴ however an indicative estimation must be recorded on the eARF to aid patient care considerations.

### Clinical features

#### Blood loss

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<th>Blood loss</th>
<th>Signs</th>
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| 15% (750 mL in 70 kg) | Minimal or no tachycardic response  
Blood pressure changes do not usually occur |
| 15–30% (750 mL–1500 mL) | Tachycardia  
Hypotension  
Peripheral hypoperfusion  
ALOC |
| > 40% (> 2 L) | Haemodynamic compensation at its limit  
Decompensation imminent  
ALOC |

### Clinical features (cont.)

#### Other clinical features

- CVS:
  - pale, cool peripheries, with or without being clammy
  - tachycardia > 100 bpm or bradycardia < 60 bpm
  - decreased pulses peripherally
  - capillary refill > 3 seconds
  - SBP < 100 mmHg

**NOTE:** Elderly may not be tachycardic. Fit/young patients may have normal vital signs and yet be very volume depleted.³

- NEURO:
  - ALOC
  - initially quiet with decreased alertness
  - confusion/agitation
  - obtundation (mental blunting)

**NOTE:** Be cautious interpreting ALOC as being due to substance misuse or alcohol.

Hypotension in trauma patients may not be secondary to haemorrhage – consider other causes (e.g. obstructive shock (tension pneumothorax tamponade) spinal cord injuries (SCI) or toxins.
Note: Officers are only to perform procedures for which they have received specific training and authorisation by the QAS.