Clinical Practice Procedures: Trauma/Arterial torniquet

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<tr>
<th>Policy code</th>
<th>CPP_TR_AT_0418</th>
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<tr>
<td>Date</td>
<td>April, 2018</td>
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<td>Purpose</td>
<td>To ensure a consistent procedural approach for arterial torniquet.</td>
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<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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<td>Population</td>
<td>Applies to all ages unless stated otherwise.</td>
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<tr>
<td>Source of funding</td>
<td>Internal – 100%</td>
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<tr>
<td>Author</td>
<td>Clinical Quality &amp; Patient Safety Unit, QAS</td>
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The **Special Operation Forces Tactical Tourniquet Wide (SOF® TT-W)** is a single use arterial tourniquet used to control life-threatening haemorrhage.[1,2]

**Arterial Tourniquet (SOF® TT-W)**

- **Indications**
  - Life-threatening haemorrhage not controlled by direct AND/OR indirect pressure
  - Multiple casualties with extremity haemorrhage and a lack of resources to maintain simple measures of haemorrhage control

- **Contraindications**
  - Bleeding that can be controlled using simple measures such as direct AND/OR indirect pressure

- **Complications**
  - Compartment syndrome
  - Reperfusion injury when released
  - Embolism
  - Permanent nerve damage, muscle injury, vascular injury, and/or skin necrosis
  - Ischaemia
  - Fractures
  - Pain (may require analgesia)

**Note:** All risks must be balanced against the risk of exsanguination.
Procedure – Arterial tourniquet

1. Position the tourniquet 5–7 cm above the bleeding point. Clip the buckle together.

2. Pull the tourniquet tight through the snap-lock buckle.

3. Twist the windlass rod until the haemorrhage has ceased. If haemorrhage is not controlled, consider additional tightening or the application of a second tourniquet (immediately adjacent and proximal to the first) and reassess.

4. Secure the windlass through the rod locking clip, locking it in place. Confirm that the haemorrhage has ceased.

5. Record the time and date of application on the tourniquet and document in the eARF as well. Ensure the hospital staff are aware of the tourniquet application time.
**Additional information**

- The SOF® TT-W is to be applied to limbs only.
- Queensland Police Service (QPS) officers are now equipped and authorised to apply the SOF® TT-W Arterial Tourniquet (AT) in emergency situations.
- All ATs applied prior to QAS arrival at the patient must be reassessed using the following procedure:
  - Expose the injury and determine if the tourniquet is needed.
  - Consider converting to haemostatic dressings/emergency bandages if:
    - The patient is not shocked.
    - It is possible to monitor the wound closely for bleeding.
    - The AT is not being used to control haemorrhage from an amputated extremity.
  - If a tourniquet has been applied over clothing it will be necessary to re-apply it by firstly applying a second tourniquet directly to the skin and positioned 5–7 cm above the wound, before removing the original tourniquet.
- If an extended transport time is anticipated (> 45 minutes), paramedics may consider cautiously loosening the SOF® TT-W to assess haemorrhage status.
- The SOF® TT-W must be immediately reapplied if recurrent severe haemorrhage is identified.