Clinical Practice Procedures: Access/External jugular intravenous cannulation

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<th>Date</th>
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<td>Purpose</td>
<td>To ensure a consistent procedural approach to External jugular intravenous cannulation</td>
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<td>Scope</td>
<td>Applies to all QAS clinical staff.</td>
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<tr>
<td>Author</td>
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**External jugular (EJ) cannulation** involves the insertion of a catheter into the EJ vein to enable the administration of medications and/or fluids.

EJ access is an invasive procedure with more potential complications than peripheral IV access sites, therefore appropriate consideration must be given to its requirements in the pre-hospital setting.

BD Insyte™ Autoguard™ IV catheters used by QAS have a unique push-button shielding mechanism that allows the clinician to retract the needle into the safety barrel reducing the risk of needlestick injury.

**Indications**
- Emergent IV access for the administration of medications and/or fluid when peripheral IV access is unavailable.

**Contraindications**
- Agitated and uncooperative patients
- Where burns, infection or localised cellulitis complicate the access site

**Complications**
- Drug/fluid extravasation
- Haematoma or haemorrhage from site
- Infection or phlebitis
- Venous air embolus
- Arterial puncture
**Procedure – External jugular intravenous cannulation**

1. If possible, position the patient head down (to prevent air embolus).
2. If no risk of c-spine injury exists, turn the head 45 – 60° to one side.

3. Locate the EJ vein running over the posterior border of sternocleidomastoid muscle.

4. Clean the intended insertion site with a 2% Chlorhexidine/70% Isopropyl Alcohol swab using a ‘back and forth’ motion in two different directions (cross hatch method) for 15 seconds in each direction (total 30 seconds). A risk benefit analysis in view of the patient’s condition is appropriate.
5. If clinically appropriate, allow insertion site to completely dry.
6. Identify appropriate size cannula.
7. Remove and discard the needle safety cap.
8. Hold the catheter hub and rotate barrel 360°, ensure catheter is seated back in the notch.
9. Stabilise vein and facilitate venous filling by placing the side of the thumb above the clavicle.
10. Whilst maintaining skin traction, insert the needle bevel up midway between the angle of the jaw and clavicle, observe flashback along the catheter (20, 22, 24 gauge) or behind the white button (16 and 18 gauge).

11. Upon flashback visualisation, lower catheter and slightly advance entire unit.

12. Thread the catheter into the vein whilst maintaining skin traction.

13. Apply direct pressure behind the catheter tip.


15. Press white button and dispose of shielded needle immediately into a sharps container.

16. Attach SmartSite® Needle-Free Valve.

17. Secure catheter and apply dressing (avoid circumferential application).

18. Flush catheter with sodium chloride 0.9% to ensure patency.

19. Administer medications and/or fluids as necessary.

20. Frequently monitor the insertion site for extravasation.
Additional information

- The potential for exposure to blood and body fluids during this procedure is **HIGH**. All precautions that serve to minimise risk to the clinician and patient are to be applied.
- The EJ vein is anatomically superficial when compared to other veins in the body.
- The QAS supplies six sizes of BD Insyte™ Autoguard™ IV catheters  
  (**Note:** 14 G cannulas are reserved for chest decompression only).

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<th>Specifications</th>
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**NUMBER OF ATTEMPTS**
- This procedure is limited to **one** attempt in each EJ vein.