Definitions:

Central Venous Catheter (CVC): A venous access device whose tip dwells in the superior or inferior vena cava.

Client: term used to refer to a client, patient or resident

Short Term (Percutaneous) Catheter: inserted into the subclavian, jugular or femoral vein used on a temporary basis for clients in urban acute care only (up to 30 days).

Roles:

Graduate Nurses (GNs) - GNs who have been identified by their manager in targeted practice settings may be certified in this RN Specialty Practice (RN Procedure): Central Venous Catheter - Short Term - Removal. The Grad Nurse may only remove a Short Term CVC under the direct supervision of a certified RN.

Registered Nurses (RNs) - RNs identified by their manager in targeted practice settings will be certified in this RN Specialty Practice (RN Procedure): Central Venous Catheter - Short Term - Removal.

1. Purpose

1.1 To minimize the risks of hemorrhage and air embolism associated with the removal of a Short Term CVC.

2. Policy

2.1.1 The RN/Grad Nurse certified in this RNSP will have first completed the following learning modules/activities prior to removing a Short Term Central line independently:
- Attended an educational session on removal of a Short Term Central Line,
- Completed the learning package and quiz and returned it to the CNE.
• Complete a skills checklist with a certified RN during first removal, to validate and ensure safety checks are followed appropriately.

2.2 A physician’s order is required to remove a short term CVC.

2.3 Physicians and nurses will assess the need for short term CVC on a daily basis. The CVC should be removed when it is no longer needed for the client’s plan of care.

2.4 Removal will be done using aseptic technique.

2.5 Catheter tip is not routinely cultured.

3. **PROCEDURE**

3.1 Supplies:
- Chlorhexidine/alcohol - swab or swabstick
- Dressing tray/set
- Disposable stitch cutter or suture scissors
- Sterile gauze
- Sterile occlusive dressing, e.g. 4-sided Elastoplast bandage
- Clean gloves
- Face mask/shield
- Sterile scissors, sterile specimen container, requisition and labels (if tip is to be cultured)
- Alcohol based hand sanitizer

3.2 Verify client identity and explain the procedure.

3.3 **Position client supine with head of bed flat** (or Trendelenburg if client tolerates).

3.4 Perform **Hand Hygiene**: (See Infection Prevention & Control policy 20-2020-20).

3.5 Place sterile field to receive catheter if tip culture is planned.

3.6 Turn off IV infusions.

3.7 Apply face mask/shield and clean gloves.

3.8 Remove dressing and stabilization device if present.

**Note**: remove stabilization device using alcohol swabs to loosen.

3.9 Cleanse insertion and suture sites with Chlorhexidine swab or swabstick. Using friction clean around the catheter in a back and forth motion for 15 seconds, then in the opposite direction for 15 seconds. Allow to dry.

3.10 Remove sutures, if present.

3.11 Cover the exit site with gauze and apply gentle pressure while removing the catheter in a slow, constant motion while client is exhaling.
3.12 For ventilated clients remove catheter during inspiration.

   **Note:** For non-ventilated clients, intrathoracic pressure is increased during exhalation reducing the risk of air entry on removal.

3.13 Apply pressure to insertion site with sterile gauze for at least five minutes and until bleeding is controlled.

3.14 Apply sterile occlusive dressing.

   **Note:** An occlusive dressing is used to prevent air from entering the central venous circulation.

3.15 Check catheter to ensure it has been removed intact

3.16 If catheter infection is suspected, notify physician. Send catheter tip for culturing. Use sterile scissors to remove distal 5cm of catheter. Place in a sterile container.

3.17 Client should remain flat (as possible considering clinical condition) for 30 minutes following removal.

3.18 Assess site for signs of bleeding every 15 minutes x 2 then q 30 minutes X 2 then 1 hour later.

3.19 Watch for hematoma formation or signs and symptoms of air embolism.

3.20 Leave dressing in place for at least 24 hours.

3.21 Document on appropriate record:
   - condition of insertion site
   - condition of CVC (tip intact)
   - whether CVC tip sent for culture
   - client response to procedure

3.22 Report to physician:
   - complications during removal
   - if tip not intact
   - if bleeding not controlled after 5 minutes
4. REFERENCES


