Removal of a Non-Tunneled Central Catheter

PURPOSE
To safely and completely remove a non-tunneled central catheter.

POLICY
1. Aseptic technique shall be used for this procedure.

2. Removal of a non-tunneled central catheter shall be performed by an RN on the order of the physician.

3. The nurse shall be competent in the process of the non-tunneled central catheter removal, including identification of potential complications, appropriate nursing interventions and/or emergency measures as needed, and patient and caregiver education.

4. The maximum dwell time of a non-tunneled central catheter is unknown; ongoing and daily monitoring of the device necessity should be performed.

5. Removal of a non-tunneled central catheter should be determined by patient condition, completion of therapy, presence of infectious or inflammatory process, catheter malposition, or catheter dysfunction.

6. With any patient reports of discomfort or pain related to the non-tunneled central catheter, the patient and the access device should be assessed, appropriate interventions performed, and the physician notified. When interventions are unsuccessful, the non-tunneled central catheter should be removed.

7. The decision to remove or salvage a catheter due to suspected or confirmed catheter-related bloodstream infection (CR-BSI) should be based on blood culture results, specific type of cultured organism, patient's current condition, available vascular access sites, effectiveness of anti-microbial therapy, and physician direction.

8. Caution should be used in the removal of a non-tunneled central catheter, including precautions to prevent air embolism. Digital pressure should be applied until hemostasis is achieved by using manual compression and/or other adjunct approaches such as hemostatic pads, patches, or powders that are designed to potentiate clot formation. Petroleum-based ointment and a sterile dressing may be applied to the access site to seal the skin-to-vein tract and decrease the risk of air embolus. When removing the non-tunneled central venous catheter, the nurse should position the patient so that the IV insertion site is at or below the level of the heart to reduce the risk of air embolus.

CarePro Health Services
Phone 800-755-6997
Infusion Nursing

Revised: 04/24/20

9. If resistance is encountered when the catheter is being removed, the catheter should not be forcibly removed, and the physician should be notified and discussion should occur related to initiating appropriate interventions for successful removal.

EQUIPMENT

Sterile dressing change kit **OR** the following supplies:

Liquid soap and sanitizing gel

Clean gloves

Sterile gloves

Antiseptic cleanser (alcohol, povidone-iodine, Chlora-Prep®)

Antiseptic ointment (optional and with physician order)

Sterile 2x2" gauze

Tape

Sterile occlusive dressing

Suture removal kit (optional)

1-inch tape or Band-Aid®

PROCEDURE

1. Verify physician order. Explain procedure to patient. Place patient in a flat or Trendelenburg position. Educate patient on the Valsalva maneuver.

2. Wash hands thoroughly with soap and water. Dry with clean paper towel.

3. Arrange supplies on a clean surface.

4. Put on gloves. Remove tape and dressing.

5. Assess catheter and skin insertion site. Put on new pair of sterile gloves and cleanse around the catheter site with Chlora-Prep® or other cleanser. If catheter is sutured in place, remove sutures.

6. Have the patient perform the Valsalva maneuver. Place a sterile 2x2 on the insertion site and apply pressure immediately following catheter removal for at least 5 minutes.
   If resistance is met, STOP. The catheter should not be forcibly removed and the physician should be notified.

7. A non-tunneled catheter should never be readvanced.

8. Once hemostasis is achieved, replace the 2x2 with antiseptic ointment (if ordered) and a sterile occlusive dressing.

9. Securely tape the dressing in place, completely occluding the site.

10. Patients should remain lying for 10 minutes following non-tunneled central catheter removal and dressing placement.

11. Instruct the patient to leave the dressing in place for at least 24 hours and to change the dressing every 24 hours until the site has epithelialized.

12. Instruct the patient to report immediately any bleeding, shortness of breath or other symptoms.

13. The condition, length, and site of the catheter should be assessed upon removal.

14. Document procedure, including catheter length, outcome and patient's response in the patient's medical record.

RESPONSIBILITY

The Clinical Specialist has the responsibility for approval of, compliance with, and revisions to this policy.

MODIFICATION/REVISION

This policy is subject to modification or revision in part or its entirety to reflect changes in conditions subsequent to the effective date of this policy.

REFERENCES

1. Infusion Nursing Standards of Practice – Revised 2016; Journal of Infusion Nursing, Supplement to January/February 2016, Volume 39, Number 1S.

2. Infusion Nursing: An Evidence-Based Approach, Third Edition edited by Mary Alexander, Ann Corrigan, Lisa Gorski, Judy Hankins, and Roxanne Perucca.

3. INS (Infusion Nurses Society) Policies and Procedures for Infusion Nursing, 3rd Edition.