

Hemodialysis: Removal of Temporary Non-Tunneled Access Device (CVC)

Site Applicability

PHC Renal Program Hemodialysis (HD) In-centre unit

Practice Level

Specialized: RNs who have completed the required education and who provide nursing care in a PHC Renal Program HD In-centre unit perform this procedure.

Need to Know

Clinical Indication: Patients who have a temporary non-tunneled HD CVC that needs to be removed.

1. Manipulating a catheter and accessing the patient's bloodstream should be performed in a manner that avoids contamination (K/DOQI Guidelines #15 E).
2. If the catheter does not have Tego connectors, nurses and patients should wear a surgical mask or a face shield when initiating or discontinuing HD treatments.
3. If the catheter does not have Tego connectors, nurses should wear sterile gloves when initiating or discontinuing HD treatments (K/DOQI Guidelines #15 F).

Equipment and Supplies

1. 4x4 gauze
2. dressing tray (sterile)
3. face mask (2)
4. gloves (sterile)
5. Mepore or Tegaderm
6. SoluPrep swabstick (2% w/v chlorhexidine gluconate and 70% w/v isopropyl alcohol)
7. scissors (sterile)

Procedure

Steps

STEPS	RATIONALE
1. Confirm MD's order	

This material has been prepared solely for use at Providence Health Care (PHC), Provincial Health Services Authority (PHSA) and Vancouver Coastal Health (VCH). PHC, PHSA and VCH accept no responsibility for use of this material by any person or organization not associated with PHC, PHSA and VCH. A printed copy of this document may not reflect the current electronic version.

2.	<ul style="list-style-type: none"> a. Give the usual heparin loading dose, but ensure that the heparin running dose is stopped 90 minutes before the end of HD, when the temporary CVC is to be removed following the HD treatment b. Place the patient in supine or in Trendelenberg position c. Wash hands d. Nurse and patient wear mask e. Using non-sterile gloves remove dressing from exit site f. Discard gloves and wash hands 	<p>Heparin has a half-life of 60 minutes. Stopping the heparin 90 minutes before the end of HD should reduce the risk of bleeding.</p> <p>This position will prevent air from travelling to the patient's head in the event of an air embolus.</p>
3.	Follow B-00-12-10043 – Hemodialysis: Central Venous Access Dressing for steps to performing dressing change.	
4.	Using a sterile scissors, carefully remove the sutures that anchor the temporary CVC in place (usually two sutures).	This frees the CVC and will allow for easy removal.
5.	Place a 4x4 gauze, folded into four, over the exit site.	This provides a pad of gauze sufficient to stop bleeding from the CVC exit site when the CVC is removed.
6.	Ask patient to perform Valsalva maneuver (take a deep breath and bear down) and breathe out while removing the CVC. Ask the patient to count to three as they breathe out.	Promotes negative intrathoracic pressure thus reducing the risk of introduction of air into the venous circulation.
7.	Pull CVC out in smooth continuous motion and immediately apply pressure for a minimum of 10 minutes.	Prevent air embolus and stop the bleeding.
8.	Apply adhesive dressing tightly over the same gauze.	The patient should be instructed to leave the dressing in place for at least 24 hours before removing the dressing or until the next HD treatment.
9.	Do not lift gauze to determine if bleeding has stopped	Lifting the gauze may cause air embolus
10.	The nephrologist may request that the CVC tip be sent to the laboratory for culture and sensitivity.	This information may be used to track CVC infections.

Documentation

HD log

1. Document the removal of the temporary CVC and indicate if any excessive bleeding occurred.
2. Document if the tip of the CVC was sent for culture and sensitivity.

HD care guide

1. Document the date and time that the temporary CVC was removed.

Patient and Family Education

1. The patient should leave the dressing in place for at least 24 hours before removing the dressing or until the next HD treatment.
2. The patient should not shower until the dressing has been removed. A Band-aid may be placed over the wound until it is completely healed.
3. If excessive bleeding occurs, apply manual pressure to bleeding site. Contact the HD unit, the nephrologist on call may ask the patient to go to the Emergency Department.

Related Documents

1. [B-00-12-10152](#) - Hemodialysis: Accessing a Central Venous Catheter (CVC) with and Without Tego Connectors –
2. [B-00-12-10043](#) – Hemodialysis : Central Venous Access Dressing

References

1. Canadian Association of Nephrology Nurses and Technologists. (2015). Nursing recommendations for the management of vascular access in adult hemodialysis patients. *CANNT Journal* Vol. 25, Sup. 1.
2. Counts, C. (Ed). (2015). *Core Curriculum of Nephrology Nursing. Sixth Edition. Module 3*. A. J. Janetti Inc.; Pitman, NJ. P. 206-215.
3. National Kidney Foundation Dialysis Outcomes Quality Initiative (K/DOQI Guidelines, March 2015).

Persons/Groups Consulted:

Renal Clinical Practice Group

SPH Nephrologists

Developed By:

Clinical Nurse Leader/Educator (Vascular Access), PHC Renal Program

Nurse Educator, PHC Renal Program

Effective Date:	JUN-2003
Posted Date:	
Last Revised:	05-MAR-2018
Last Reviewed:	
Approved By:	PHC
	Professional Practice Standards Committee
Owners:	PHC
	Renal Program - Hemodialysis