LOS ANGELES COUNTY+UNIVERSITY OF SOUTHERN CALIFORNIA MEDICAL CENTER

DEPARTMENT OF NURSING SERVICES AND EDUCATION

IMPLANTABLE PORTS: ACCESSING & REMOVING NEEDLE, AND CARE

PURPOSE: To outline nursing methodology in accessing and removing the needle from an implantable port and caring for the site.

SUPPORTIVE DATA:

An implantable port is a type of central venous catheter that is for long-term use. Patients are discharged home with them. Implantable ports are inserted in Interventional Radiology or the Operating Room. A flap is opened in the upper chest wall and the catheter is threaded into the superior vena cava. Then the flap is pulled over the port and is sutured/sealed. A special, non-coring needle is inserted through the skin into the port in order to administer medications, fluid, or to withdraw blood. Only nurses who have been trained may access implantable ports.

EQUIPMENT LIST:

For Accessing Implantable Ports

Implantable port access kit (includes sterile field, access needle, 10 mL syringe prefilled with NS, mask and sterile gloves and transparent dressing)

Positive Pressure Reflux Valve (Reflux valve) (1)

If allergic to chlorhexidine:
Povidone-iodine swab (4)

For Removing Implantable Port Needle

Non-sterile gloves
10 mL syringe prefilled with NS or heparin, as appropriate
Chlorhexidine applicator (1)
4x4 gauze
Tape

For Blood Withdrawal

Chlorhexidine applicator (1)
Or if allergic to chlorhexidine:
Povidone-iodine swabs (3)

12 mL syringe (1-2)
Syringe, appropriate size for blood sample
Blood specimen tubes
Lab labels
Non-sterile Gloves
Sterile gauze
Drape (optional)
Blood Transfer Device
Alcohol cap protector
Reflux valve

STEPS	KEY POINTS
IMPLANTABLE PORT ACCESS	
1. Locate implantable port	
2. Wash hands	
3. Open kit	
4. Don mask	
5. Open sterile field carefully	Remember there is a 1-inch perimeter that is not considered sterile, so items must be placed in the center of the sterile field
6. Remove reflux valve and NS filled syringe from packaging and place on sterile field	
7. Don sterile gloves	
8. Open needle/extension tubing packaging and place needle/extension tubing on sterile field	
9. Attach NS filled syringe to valve and prime, then attach valve to access needle/extension tubing and prime	
10. Clean the site with one chlorhexidine applicator • Use vigorous back-and-forth strokes with sponge for 30 seconds • Completely wet the area with the antiseptic • Allow the area to air dry for 30 seconds • Do not fan or blow on site If the patient has hypersensitivity to chlorhexidine: Clean the site with 3 povidone-iodine swabs. • Use circular motion. Begin in the center and move outward. • Allow the area to dry for 1 minute	Time and friction are the key elements.
11. Stabilize port with non-dominate hand by placing thumb and first finger around port, and insert needle into site with dominant hand	
12. Aspirate blood to check for blood return and then flush.	
13. Close clamp	
14. Perform the following as appropriate: • Apply transparent dressing if needle is to be left in place (e.g. for infusion or as a heplock) • Flush with heparin per standard if leaving in place as a heplock	If intermittent use of the port is anticipated needle/extension tube/reflux valve are left in place. This eliminates pain from frequent access

STEPS	KEY POINTS
IMPLANTABLE PORT NEEDLE REMOVAL	
15. Follow instruction for "Cleaning Injection Port" in this procedure	
16. Open clamps and flush with heparin per Central Venous Catheter and Midline Peripheral Catheter Standard Part II	
17. Close clamps	
18. Remove syringe and dressing	
19. Stabilize port by placing thumb and first finger around port and remove needle by pulling straight up with dominant hand	It may be necessary to apply light pressure if oozing continues.
20. Place sterile 4x4 gauze over site and tape in place	The gauze may be removed after bleeding has totally stopped
BLOOD WITHDRAWAL	
21. Follow steps of "Implantable Port Access" section of this procedure if the access needle is not already in place	
22. Wash hands and don non-sterile gloves	
23. Remove alcohol protector cap or perform steps 2-3 if alcohol protector cap not present	If application time of alcohol cap is less than 1 minute, length of time is questionable, or visible debris is present, perform steps 2-3.
24. Flush catheter with 10 mL syringe prefilled with NS using push stop method	
25. Attach appropriate syringe to catheter hub/ reflux valve. Aspirate blood discard per standard	If not contraindicated, perform any of the following to facilitate aspiration of blood: • Reposition patient (sit up, lay flat or slightly rotate body) • Instruct patient to take deep breaths • Encourage patient to cough • Raise arms above head • Use 10 mL syringe prefilled with NS, expel 5 mL NS, flush catheter with 2 mL use push stop method, then pull back 4-6 mL of blood discard • Close clamps (if present) then remove reflux valve following steps in Positive Pressure Valve Change section of this procedure If unsuccessful after performing the above, consult with the PICC team or primary team
26. Remove syringe filled with blood for discard	
27. Attach appropriate syringe and slowly aspirate required amount	

STEPS	KEY POINTS
28. Clamp catheter if clamp is present	
29. Transfer blood to appropriate blood specimen tubes using Blood Transfer Device	
30. Scrub valve hub and sideswith one chlorhexidine applicator for 15-30 seconds. 31. Allow to dry for 15 seconds	
32. Flush catheter as CVC & Midline Peripheral Catheter Standard Part II	
33. Replace with new reflux valve and alcohol protector cap or follow steps of "Implantable Port Needle Removal" in this procedure as indicated	
CARE OF INSERTION SITE (POST-INSERTION	
34. Don non-sterile gloves	
35. Clean surgical insertion site for 30 seconds with a chlorhexidine applicator by using vigorous back-and-forth strokes with sponge. Completely wet area with antiseptic	Clean insertion site each day for 3 days post insertion.
36. Allow area to air dry for 30 seconds	
37. Apply a band-aid or a gauze dressing	No dressing is usually required after the third day.

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