Implanted Port
Central Venous Access Device (CVAD)

Guideline I: Accessing an Implanted Port
Guideline II: Flushing and IV Medication Administration
Guideline III: Site Care and Dressing Changes
Guideline IV: Deaccessing

1. Review or obtain practitioner's order.
2. Gather and prepare necessary equipment and supplies.
3. Wash hands thoroughly prior to and after contact with the patient.
4. Confirm the patient's identity.
5. Provide privacy.
6. Explain procedure to patient and/or caregiver.
7. Raise the bed to waist level before providing care, Put on gloves and, as needed, other protective equipment.

Guideline I: Accessing an Implanted Port

Supplies:	Port dressing kit	1 non-coring needle with attached tubing	Sterile injection cap
IV solution, and tubing if ordered		10 mL PF Normal Saline filled syringe	Heparin locking solution if needed

1. Palpate port site to locate septum of port.
2. Have patient turn head away from port or put on a mask.
3. Put on a mask and set up sterile field using aseptic technique.
4. Open Huber needle and PF normal saline syringe and drop on sterile field.
5. Put on sterile gloves.
6. While maintaining the sterile field, prime the non-coring needle / attached tubing to purge our air, clamp tubing.
7. Cleanse area over port with a chloraprep swab using a 30 second frictional scrub and allow to air dry for a minimum of 30 seconds.
8. Using non-dominant hand, locate the edges of the port by palpation. Hold thumb and finger of this hand on opposite edges of port so septum is easily identified.
9. With the port needle/tubing clamped, insert the needle straight through the skin and into the center of the port septum until the back side of the port is touched with the needle.
10. Slowly inject PF normal saline into implanted port, noting any resistance or sluggishness of flow; slowly aspirate for blood return then complete normal saline flush.
11. **If administering IV push medication- See Guideline II.**
12. **If indicated, proceed with locking (heparinizing) the port if leaving accessed.**

1. Cleanse needleless connector with alcohol pad and allow to dry completely
2. Attach a prefilled syringe containing the locking solution (per provider order) to the needleless connector. **See "Quick Reference Guide to CVAD Maintenance".**
3. Inject the locking solution slowly into the catheter.

13. Clamp tubing and remove syringe
14. Apply sterile transparent dressing. Do not cover insertion site with gauze unless needed due to drainage from site.
15. Secure tubing where it extends from under the transparent dressing.
16. Remove syringe and attach sterile injection cap
17. Discard used supplies in appropriate receptacles.
18. Remove and discard your gloves and other personal protective equipment worn.
19. Perform hand hygiene
20. Label dressing with date, time, initials
21. Document in patient's medical record; Skin condition at the port site, flush, dressing change, access or needle change of the port, IV Fluids (if infusing) and patient response.

Guideline II: Flushing and IV Medication Administration

Supplies:	Gloves	Mask (for patient and self)	Alcohol prep pads	Medication (if administering)
Sterile injection caps (if needed)		10 ml PF normal saline syringe		10 ml Heparin solution (locking solution)

1. Cleanse needleless connector with alcohol pad and allow to dry completely.
2. Attach a prefilled syringe containing preservative-free (PF) normal saline solution to the needleless connector.
3. Unclamp the catheter and, if not contraindicated, aspirate slowly for a blood return. Notify provider if unable to aspirate easily.
4. If you obtain a blood return, inject PF normal saline solution slowly, using push-pause method into the catheter. Do not forcibly flush the device, further evaluate the device if you meet resistance. Notify the provider.
5. Remove and discard the syringe.
6. **If administering IV push medication**
   a. Attach the syringe with the IV push medication and administer it at the rate recommended.
   b. Connect second syringe filled with PF normal saline, flush using the push-pause method.
7. **If indicated, proceed with locking (heparinizing) the port if leaving accessed.**
   a. Cleanse needleless connector with alcohol pad and allow to dry completely
   b. Attach a prefilled syringe containing the locking solution (per provider order) to the needleless connector. **See "Quick Reference Guide to CVAD Maintenance".**
   c. Inject the locking solution slowly into the catheter.
8. Reclamp the catheter.

9. Place a sterile end cap on the needleless connector if leaving accessed.
10. Discard used supplies in appropriate receptacles.
11. Remove and discard your gloves and other personal protective equipment worn.
12. Perform hand hygiene.
13. Document the procedure patient's tolerance to procedure and patient/caregiver instructions in the medical record.

Guideline III: Site Care and Dressing Changes			
Supplies:	Gloves	Central Line dressing kit	**Alchol prep pads**

1. Remove old dressing and discard appropriately, caution not to pull directly on catheter itself
2. Assess the catheter for cracks, leaks, kinking, and any mechanical problems
3. Remove gloves and perform hand hygiene
4. Open Central line dressing kit, set up sterile field and apply sterile gloves and mask and any other personal protective equipment.
5. Clean skin around the insertion site using antiseptic agent, start at insertion site and move outward in circular motions
6. Allow antiseptic to dry for 2 minutes, do not fan, blow or wipe the antiseptic while drying
7. Apply sterile transparent dressing over the catheter insertion site, gently smoothing from center to edge. Alternatively, a sterile 4"x4" gauze dressing and tape can be used if transparent dressing unavailable or site draining.
8. Secure catheter where it extends below the transparent dressing.
9. Discard used supplies in appropriate receptacles.
10. Remove and discard your gloves and other personal protective equipment worn.
11. Perform hand hygiene
12. Label dressing with date and initials.
13. Document procedure, date, time, any findings, how patient tolerated

Procedure IV: <u>Deaccessing an Implanted Port</u>					
Supplies	Gloves	2x2 gauze	Alcohol swabs	10ml Normal Saline filled syringe	10mL Heparin filled syringe, Sharps container

1. Clamp needle tubing
2. Perform a mechanical scrub of the needleless injection connector for at least15-30 seconds, allow to dry (or remove IV tubing) and attach syringe with 10 mL NS
3. **Open end / non-valved port (ie Cook):**

a. Open clamp of needle tubing and flush with 10 mL NS using push-pause technique. Reclamp.

b. Attach 10mL syringe with heparin per provider order. Unclamp needle tubing and instill

4. **Closed end / Valved port (ie Groshong):**

a. Open clamp of needle tubing and flush with 10 mL NS, using a push-pause technique

b. As last 0.2 mL fluid is instilled, clamp needle tubing to maintain positive pressure in the port.

5. Remove transparent dressing.
6. While holding port secure with one hand, pull needle straight out according to manufacturer's instructions. Remove needle from access site (engaging safety mechanism) and note any redness, tenderness, drainage, edema at the injection site.
7. If bleeding occurs at the site, apply direct pressure using a sterile gauze sponge and apply dressing if needed.
14. Discard used supplies in appropriate receptacles.
15. Remove and discard your gloves and other personal protective equipment worn.
16. Perform hand hygiene
17. Document deaccessing, skin condition and patient response in patient's medical record.

Attachments: Quick Reference Guide to Central Venous Access Device Maintenance

References:

Association for Vascular Access. "Association for Vascular Access." *Avainfo.org*, 2020, www.avainfo.org. Accessed 30 July 2021.
Gorski, Lisa, et al. *Infusion Therapy : Standards of Practice*. 8th ed., Norwood, Ma, Journal Of Infusion Nursing, 2021.
Perry, A.G., PotterP.A., & Ostendorf, W.R. (2018). Clinical nursing skills & techniques (9th ed.). St. Louis: Elsevier

Original Author: Molly Jenkins, Staff Development Coordinator
Historical Reviews & Revisions:

Review	Reviewer's Name(s)	Changes Made?
5/12/2025	Dr. Anderson, Amy Lowe Clinical Dir, Shannon Johnson, Clinical Compliance	New, approved

Quick Reference Guide to Central Venous Access Device Maintenance (Adult)		**Flushing** (line maintenance)			**Flushing after Intermittent Medication / Blood Admin or Blood Draws**		**Dressing Changes Transparent Semi-permeable Membrane (TSM)**	
		0.9% PF Saline	**Heparin**	**Freq. if not being used**	**0.9% PF Saline**	**Heparin**	**TSM w/o gauze**	**TSM w/ gauze**
Types of Central Venous Access Devices (CVAD) include: Peripherally Inserted Central Catheter (PICC), Non-tunneled Central Catheter, Tunneled Central Catheter, & Port	**Central Catheters** (Jugular-IJ-, subclavian, tunneled, non-tunneled, valved, groshong)	10 mL	**Clamps:** 10 units/mL (5 mL) **No Clamps:** NONE	**Non-tunneled:** Q 24 hrs **Tunneled** at least 1x a week	10mL after meds; always flush w/ 20 mL after blood draw or administering blood, and PRN	**Clamps:** 10 units/mL (5 mL) **No Clamps:** NONE	Q 7 days & PRN	Q 24 hrs & PRN
	Ports If unable to determine type of port, closed end/valved or open end/non-valved, heparization of the port will not affect port functionality	10 mL	PER MD ORDER: 100units/ml (5ml)	**Accessed nonvalved / valved:** at least 1x week **All Deaccessed ports:** Monthly or Q 4-6 weeks	10 mL after meds; always flush w/ 20 mL after blood draw or administering blood and PRN	PER MD ORDER: 100 units/ml (5ml)	Q 7 days & PRN	Q 7days & PRN
	PICC/midlines (midlines are NOT central lines, but follow the same flushing guidelines as PICCS)	10ml	**Clamps / No clamps:** NONE	at least 1x week when not in use	10ml after meds; always flush with 20 ml after blood draw or administering blood and PRN	NONE	Q 7 Days & PRN	Q 24 hours & PRN