

Policy

The Extended dwell vascular access device will be inserted using sterile precautions. Only providers that have had competency including Seldinger technique may place a VAD that requires Seldinger.

No more than two attempts at extended dwell VAD placement will be made by any one provider. After failed attempts made by a second provider, further attempts at insertion should be made only after careful assessment of the patient's remaining venous access with collaboration of the health care team to determine appropriate access.

Key Points

- Extended dwell is indicated for greater than 3 days and up to 29 days.
- Appropriate for infusion of peripheral medications, consider a central vascular access device for vesicant and irritants.
- The smallest-gauge peripheral catheter that will accommodate the prescribed therapy should be chosen.
- Peripheral vein preservation should be considered when planning for vascular access.
- Use sterile technique due to extended dwell time.

Assessment

Avoid area of joint flexion including the hands, all areas of the wrist (due to potential nerve damage) and antecubital fossa. Choose insertion sites in the forearm to increase dwell time, decrease complications, promote self-care and prevent accidental dislodgement. Also, consideration should include medications, as well as patient-specific factors that affect tissue/ vessel fragility, integrity and accessibility. Consider patient age, nutritional status, body size, medical history, and current status.

Adults

- Avoid veins in the upper extremity of the side of breast surgery with axillary node dissection, lymphedema, or with a fistula/graft or the affected extremity from a cerebrovascular accident.
- Patients with chronic kidney disease, collaborate with the nephrologist to determine the most appropriate device to deliver the prescribed therapy.
- Do not use veins of the lower extremities unless necessary due to the risk of tissue damage, thrombophlebitis, and ulceration.

Pediatric/Neonates

- Consider veins of the hand, forearm, and upper arm below the axilla
- Avoid the antecubital area, which has a higher failure rate
- For neonates, also consider veins of the scalp, and saphenous vein
- Consider veins of the lower extremities in patients that are now crawling

Pre-procedure

1. Obtain and review order for insertion of peripheral device
2. Assess for history of allergies to analgesia, adhesives, or antiseptic solutions
3. Verify patient's identity using 2 independent identifiers
4. Obtain informed consent per organizational policy

Procedure

1. Gather supplies
2. Place patient in appropriate position (peds engage child life, neonates swaddle and offer pacifier)
3. Perform hand hygiene
4. Place tourniquet on the extremity
5. Assess the vasculature, and identify potential sites that are easily seen or palpated
6. If veins are not visible or easily palpated, use technology such as a transilluminator or ultrasound

7. Remove tourniquet
8. Prepare insertion site, cleanse with antiseptic soap and water
9. Administer local anesthesia
10. Perform hand hygiene
11. Don Hat and mask
12. sterile gloves
13. Set up sterile field
14. Cleanse insertion site with antiseptic solution; allow to dry completely.
15. Reapply tourniquet
16. If using visualization technology use a sterile cover
17. Stabilize the selected vein below the intended venipuncture
18. Align the introducer with bevel up on top of the vein at a 10-15-degree angle from the skin. Puncture the skin and the anterior vein wall, taking note of blood in the introducer. Once a blood return is achieved
19. Pick up the wire in the middle of the wire and thread the wire into the introducer, the wire should be advanced so that a few centimeters of the wire is between your fingers and the hub of the introducer. Do not use force
20. Holding pressure over the insertion site, remove the needle over and off the wire
21. Always holding the wire, thread the catheter over the wire and into the skin and vein
22. Once the catheter is completely in the vein pull the wire out of the catheter
23. Flush per hospital policy
24. Stabilize the catheter, preferably with an stabilization device
25. Apply a transparent membrane, covering the securement device and insertion site
26. Discard used supplies appropriately
27. Remove gloves, and perform hand hygiene
28. Label dressing and document in medical record. Documentation should include the device placed, technology used, number of attempts, type of device, patients response to procedure and education provided.

Reference: Infusion Nurses Society. Infusion nursing standards of practice. J Infus Nurs. 2016;39