

Central Venous Access Devices (CVAD) Study Guide

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□ Definitions & Indications

- Central Venous Access Device (CVAD): catheter tip in SVC/RA for meds, fluids, TPN, blood products, CVP monitoring
- Indications:

□ Common Anatomical Sites Advantages or disadvantages?

□ Device Types & Comparison

Feature	Non-tunneled	PICC	Tunneled (Hickman)	Implanted Port
Insertion Site	IJ/Subclavian/Femoral	Basilic/Cephalic	Subclavian/IJ	Subcutaneous chest
Duration	Short–moderate	Moderate–long	Chronic (>6 wk.)	Months–years
Securement	External sutures	Securement device	Dacron cuff under skin	Entire device implanted
Nurse Discontinuation	Yes	Yes	No	No

□ Pre-Insertion & Post-Insertion Protocols

Why do CXR post insertion?

□ Aseptic Care & Maintenance

- Assess:
- “Scrub the hub”:
- Flush:
- Swab caps:
- Dressing changes:
- Replace catheter caps:

□ Dressing Change Protocol

1. Gather supplies;
2. Allergies???
3. Explain
4. Don _____ & _____ then _____
5. Remove
6. Activate
7. Air-dry completely;
8. Apply dressing covering _____. Keep _____ visible. Label with _____
9. Dispose supplies
10. Teach: h

☐ Catheter Removal Protocol

1. Verify order; assemble _____ & _____ kits
2. Place in what position? Why?
3. Clip _____ and exhale Why exhale?
4. Withdraw catheter steadily; hold pressure _____
5. Apply petroleum gauze + occlusive dressing Why?
 - o Central: leave 24 h
 - o PICC: leave 48 h + 4x4 gauze + Coban wrap; record catheter length
6. Keep patient supine 30 min. & monitor. Why?
7. Document: _____

☐ Complications & Emergency Interventions

Complication	Signs & Symptoms	Immediate Actions
CLABSI	Redness, drainage, fever, ↑ WBC	Strict asepsis; notify MD; culture site; change dressing
Pneumothorax	Dyspnea, chest pain, ↓ breath sounds	O ₂ ; raise HOB; notify Rapid Response team
Air Embolism	Sudden dyspnea, chest pain, hypotension	O ₂ non-rebreather; left lateral Trendelenburg; alert team
Occlusion	No blood return, sluggish flow	Reposition; cough/deep breathe; alteplase if ordered
Catheter Rupture	Leakage, loss of patency	Clamp lumen; stop infusion; notify MD
Migration	Change in external length, malfunction	Confirm with X-ray; notify MD

☐ Documentation & Patient Teaching

- Document: what & why _____
- Instruct patient/family: what & why _____