THE STUDY VAULT

Clinical Chaos

Central Venous Access Devices

SKILL SNAPSHOT

Purpose
- Provides reliable central circulation access for irritants, vesicants, prolonged therapy, nutrition, hemodynamic monitoring, or frequent sampling.

When to use
- PICC, tunneled/non-tunneled CVC, implanted port, dialysis catheter, or other central device with verified indication.

Supplies needed
- Antiseptic; sterile dressing/caps; flushes; securement; masks/PPE; labels; needleless connectors; line-specific supplies.

PREP + PATIENT SETUP

- Identify exact device, lumen purpose, tip/use confirmation, restrictions, and ongoing necessity.
- Assess site, tunnel/pocket, dressing, securement, external length, patency, and symptoms.

VAULT TIP

- Know the device before touching it—type, lumen purpose, clamp behavior, and restrictions determine safe care.

STEP-BY-STEP

1. Hand hygiene; identify patient; inspect catheter and surrounding skin for infection, bleeding, leakage, swelling, tenderness, and migration.
2. Assess neck/arm/chest for thrombosis and patient for fever, chills, dyspnea, chest pain, or arrhythmia.
3. Keep dressing clean, dry, intact, and dated; replace loose/wet/soiled dressings promptly using sterile technique.
4. Before every access, scrub needleless connector with approved antiseptic/friction for required time and allow it to dry.
5. Use aseptic no-touch technique and a new sterile device for each entry. Minimize connections.
6. Verify patency with facility-approved assessment and correct syringe. Never force against resistance.
7. Use prescribed flush volume/sequence and correct clamp-positive pressure technique for connector/device.
8. Trace each infusion, check compatibility, label lumens, and preserve dedicated lumens for TPN, dialysis, or other ordered therapy.
9. Maintain securement without tension; do not advance an externalized catheter.
10. Use central-line bundle practices for tubing, connector, dressing, and bathing per policy.
11. Review necessity daily and remove nonessential devices promptly using trained procedure/order.
12. For suspected CLABSI, thrombosis, occlusion, rupture, embolism, or malposition, stop use as appropriate and notify urgently.

SAFETY REMINDERS

- Strict asepsis for every access.
- Never force flush or reinsert migrated catheter.
- Dialysis catheters are not routine IV access.
- Air embolism and bleeding are central-line emergencies.

COMMON MISTAKES

- Access before antiseptic dries.
- Wet/loose dressing.
- Wrong lumen/compatibility.
- No daily necessity review.

DOCUMENTATION

- Device/site/lumen and external length.
- Dressing/securement/connector.
- Patency/flush/blood return per policy.
- Infusions and dedicated lumens.
- Complications, teaching, notifications.