Nursing Management of Venous Access Devices: Tunneled Central Catheters
(Hickman® / Broviac® / Small Bore / Groshong®)

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Tunneled catheter (Hickman)

- Types: Hickman®, Broviac®, Groshong®. Small bore

- Features: Dacron cuff lies under the skin near the exit site. Adhesions form around the cuff to stabilize the catheter as well as provide a mechanical barrier to microorganisms, thereby minimizing the risk of ascending infection.

- Refer to MGH Nursing Policies and Procedures Trove 05-03-04

Tunneled Catheters

- **Benefits:**
  - long-term access

- **Infusion Guidelines:**
  - SMALL LUMEN: Designated for TPN or if no TPN anticipated use for medications & fluids
  - LARGE LUMEN: blood, high-volume or viscous fluids, meds, and blood sampling

- **Contraindications/Risks:**
  - Infection
  - Invasive procedure
  - Thrombosis
Tunneled Catheters: Flushing

**Adults/Adolescents:**
- 10-20ml saline, then
- 5ml (10 units/ml) heparin = 50 units
- flushed daily to once weekly when used intermittently or not in use

**Toddlers/Infants:**
- 2ml (10 units/ml) heparin = 20 units

**Neonates:**
- 1-2ml (10 units/ml) heparin = 10-20 units
Flushing Groshong® Catheters

- Valved catheter
- Heparin not required
- 20 ml saline flush after every use
- Flushed with 10 ml saline every 7 days when not in use as routine flush
- Not generally used in pediatrics