Pearls
- Always talk to family / caregivers as they have specific knowledge and skills.
- Use strict sterile technique when accessing / manipulating an indwelling catheter.
- Cardiac arrest: May access central catheter and utilize if functioning properly.
- Do not attempt to force catheter open if occlusion evident.
- Some infusions may be detrimental to stop. Ask family or caregiver if it is appropriate to stop or change infusion.
- Hyperalimentation infusions (IV nutrition): If stopped for any reason monitor for hypoglycemia.

History
- Central Venous Catheter Type
  - Tunneled Catheter (Broviac / Hickman)
  - PICC (peripherally inserted central catheter)
  - Implanted catheter (Mediport / Hickman)
- Occlusion of line
- Complete or partial dislodge
- Complete or partial disruption

Signs and Symptoms
- External catheter dislodgement
- Complete catheter dislodgement
- Damaged catheter
- Bleeding at catheter site
- Internal bleeding
- Blood clot
- Air embolus
- Erythema, warmth or drainage about catheter site indicating infection

Differential
- Fever
- Hemorrhage
- Reactions from home nutrient or medication
- Respiratory distress
- Shock

Circulation Problem
- Yes → Exit to Appropriate Protocol(s)
- No → Suspect Air Embolus

Suspect Air Embolus
- Yes → Place on left side in head down position
- No → Hemorrhage at catheter site

Hemorrhage at catheter site
- Yes → Apply direct pressure around catheter
- No → Damage to catheter

Damage to catheter
- Yes → Clamp catheter proximal to disruption
  - May use hemostat wrapped in gauze
  - Stop infusion if ongoing
- No → Catheter completely or partially dislodged

Catheter completely or partially dislodged
- Yes → Apply direct pressure around catheter
- No → Ongoing infusion

Ongoing infusion
- Yes → Continue infusion
- No → Contact Destination or Medical Control

Stop infusion if ongoing

Clamp catheter

Stop infusion if ongoing

Continue infusion

Do not exceed 20 mL/kg

Contact Destination or Medical Control

This protocol has been altered from the original NCCEP Protocol by the Durham County EMS Medical Director Revised 5/2018