PURPOSE:
To assess a non-functioning catheter for occlusion.

CONSIDERATIONS:
1. A non-functioning catheter may be caused by the catheter tip being lodged against the wall of the subclavian vein, superior vena cava or right atrium. Changing the patient's position, raising their arms above their head or performing the Valsalva maneuver may help dislodge the catheter tip.
2. Studies have shown the presence of thrombus or fibrin around tips of most long-term catheters, regardless of catheter function. Patients with central venous catheters should be assessed for signs of central vessel occlusion such as swelling of the extremity, shoulder, chest, neck or face. Signs of central vessel occlusion should be reported to the physician immediately.
3. Difficulty in drawing blood from an implanted vascular access device is not uncommon due to the structure of the reservoir and catheter. PICC catheter should be a 3.0 French or larger. PICC lines may also be vulnerable to kinking under the dressing, especially if some of the catheter remains exposed causing difficulty in drawing blood.
4. Force must not be used to clear an IV catheter because of the risk of rupture and subsequent catheter embolism. Only syringes 10 mL or greater should be used.
5. Clotting of the catheter is generally caused by running an infusion too slowly, turning off the pump accidentally for prolonged periods of time or inadequate or infrequent irrigation of the line. Review all of these causes when instructing the patient/caregiver.
6. Per Joint Commission recommendations, all tubes and catheters should be labeled to prevent the possibility of tubing misconnections. Staff should emphasize to all patients the importance of contacting a clinical staff member for assistance when there is an identified need to disconnect or reconnect devices.

EQUIPMENT:
Gloves
Alcohol applicator (wipe/swab/disk/ampule)
10 mL syringes (5)
Needles or needle less adaptor
Normal saline
Heparin solution (100 units/mL or as prescribed)
Puncture-proof container
Impervious trash bag

PROCEDURE:
1. Adhere to Standard Precautions.
2. Explain procedure and purpose to patient/caregiver.
3. Gather equipment on a clean surface, close to patient.
4. Ensure adequate lighting.
5. Position patient flat in bed and elevate legs (unless contraindicated by medical condition).
6. Examine catheter for kinking. Close clamp (unless catheter is a Groshong). May need to remove dressing and look for kinking at the IV site. Follow CVC/PICC dressing change procedure if necessary.
7. Clean connection of catheter injection port or IV tubing with alcohol applicator using friction. Allow to air dry.
8. Wrap new alcohol wipe around connection and hold in place until you disconnect injection port or infusion line.
9. Remove injection port or tubing and attach normal saline syringe to catheter hub. Open clamp, and attempt to irrigate catheter gently. DO NOT FORCEFULLY ATTEMPT TO FLUSH.
10. If resistance is met, position patient on either side and repeat irrigation attempt.
11. If second irrigation attempt is unsuccessful, clamp catheter, remove normal saline syringe and attach empty 10 mL syringe and attempt to aspirate blood from catheter.
12. If all efforts are unsuccessful, notify physician for further orders.
13. If successful in aspirating blood, clamp catheter, attach normal saline syringe and vigorously flush to remove all the blood from the catheter. Attach intermittent injection port. (See Infusion Therapy-Central Venous Catheter: Intermittent Injection Port Change). Flush catheter with heparin, (See Infusion Therapy-Central Venous Catheter: Flushing/Heparinization).
14. Discard soiled supplies in appropriate containers.
15. If line is occluded, refer to infusion therapy catheter flow. Obtain orders and order medication and equipment from pharmacy.

AFTER CARE:
1. Document in patient's record:
   a. Date, time, procedure and observations.
   b. Patient's response to procedure, side effects and management.
   c. Instructions given to patient/caregiver.
   d. Communication with physician.

REFERENCE:
Centers for Disease Control and Prevention (CDC), Guidelines for the Prevention of Intravascular Catheter-Related Infections