PURPOSE:
To obtain blood specimen for blood cultures.

CONSIDERATIONS:
1. Confirm physician's order for blood cultures and to use central venous catheter (CVC) for drawing sample.
2. Verify number of blood cultures requested by the physician.
3. Determine if physician wants one set of cultures via CVC and one drawn peripherally, especially if line sepsis is suspected.
4. Multiple blood cultures are drawn 15 to 30 minutes apart; obtain order, specifying time between cultures.
5. Occasionally, one may experience difficulty drawing blood from the central venous line. This is usually a result of patient's position. Blood can usually be withdrawn if the patient changes position, takes a deep breath or lifts one or both arms above head.
6. Two blood culture bottles are used per blood culture; if the physician orders blood cultures two times, four culture bottles will be used.
7. Cultures should be left at room temperature and sent to the laboratory within 4 hours.
8. 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 syringe (3)
5 mL syringe
21-gauge needle or needle less adaptor (2)
Normal saline
Heparin solution (100 units/mL or as prescribed)
Blood culture bottles, appropriate for organism being cultured (aerobic and anaerobic)
Puncture-proof container
Impervious trash bag

PROCEDURE:
1. Adhere to Standard Precautions.
2. Explain procedure and purpose to patient/caregiver.
3. Assemble equipment on a clean surface close to the patient. Draw normal saline and/or heparin flushes as ordered.
4. Place patient in comfortable position, ensuring that site is accessible.
5. Ensure adequate lighting.

6. Clean top of blood culture bottles with alcohol applicator using friction. Allow to air dry.
7. Open protective package of injection port.
8. Insert needle or needle less adaptor straight into center of new injection port.
9. Slowly inject normal saline flush to fill dead space of injection port and then remove needle or needle less adaptor.
10. Clean connection of injection port and catheter with alcohol applicator using friction. Allow to air-dry.
11. Wrap new alcohol wipe around connection and hold in place until you disconnect the cap.
12. Connect 10 mL collecting syringe, unclamp and withdraw 10 mL blood; re-clamp.
13. Remove collecting syringe and attach new pre-filled injection port.
14. Insert 20 mL normal saline filled syringe into center of injection port. Unclamp line and briskly flush catheter.
15. Clean injection port with alcohol applicator using friction. Allow to air-dry.
16. Heparinize catheter, if indicated. (See Infusion Therapy - Central Venous Catheter: Flushing/Heparinization.)
17. Attach 21-gauge needle to 10 mL collection syringe. Add 5 mL blood to each culture bottle. Invert culture bottle gently 5 to 6 times to mix the sample thoroughly. DO NOT shake the bottles. Be careful not to touch the tops of the bottles.
18. Using a new 21-gauge needle for each bottle, insert needle into top of culture bottle to remove air from culture bottle (air will vent out in approximately 3 to 5 seconds). Remove needle from culture bottle.
19. Discard soiled supplies in appropriate containers.

AFTER CARE:
1. Label specimen with patient's name, date of birth, date and time of blood draw. (See Specimens: Obtaining and Transporting.)
2. Document in patient's record:
   a. Date, time, procedure and observations.
   b. Blood samples drawn, identity and location of laboratory where specimen taken.
   c. Amount of normal saline and heparin flush, including strength of heparin.
   d. Type and appearance of venous access site.
   e. Patient's response to procedure, side effects and management.
   f. Instructions given to patient/caregiver.
   g. Communication with physician, if needed.

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