

Sullivan County Department of Public Health

<p><u>Title:</u> Central Venous Catheter- Blood Specimen Collection</p> <p><u>Number:</u> CP-47</p> <p><u>Page Number:</u> 1 of 1</p>	<p>Original Approval: 11 / 22</p> <p>Reviewed/ revised: 2/24</p>
--	--

Statement/ Purpose:

To safely obtain high quality blood specimens for lab testing from central venous catheters (CVC).

Authority:

Application:

Registered Nurses

Terminology:

Central Venous Catheter (CVC): an indwelling device inserted into a large, central vein (most commonly the internal jugular, subclavian, or femoral) and advanced until the terminal lumen resides within the inferior vena cava, superior vena cava, or right atrium. These devices and the techniques employed to place them are synonymous with “central line” or “ventral venous access.” These devices may include PICC lines, tunneled or implanted lines.

Responsible Party:

Training and Quality Improvement Coordinator

Cross-Reference:

Hand Hygiene, Standard Precautions, Blood Collection via Venipuncture

Procedure:

1. Gather all necessary supplies to complete either vacutainer or syringe method for obtaining specimen. (A blood transfer device must be used to transfer blood to tubes in the syringe method is used).
2. Ensure there is an order from a medical provider to obtain a specimen(s).
3. Turn off IV infusions to all lumens (unless this would affect the well-being of the patient. If this is a consideration, peripheral blood samples are to be obtained).
4. Perform hand hygiene and don clean gloves.
5. Scrub needless adapter or tubing port for 15 seconds using an alcohol swab and friction in a twisting motion. Allow to dry.
6. Withdraw blood for discard using discard tube or syringe.
 - a. Blood cultures- use syringe method only; no discard is required; clean top of blood culture tube with alcohol swab and let dry prior to use; change needless adapter prior to withdrawing blood for blood cultures.

Note: If unable to withdraw blood using vacutainer method:

- Reposition patient by raising shoulder or asking patient to cough
- Reposition blood tube and needle

Sullivan County Department of Public Health

- Try a new blood tube
 - Flush with 10ml 0.9% sodium chloride and reattempt vacutainer method
 - Change to syringe method
7. Withdraw total blood sample required attaching tubes in quick succession. Slowly invert each tube 5-10 times after filled.
 - a. If using syringe method, pull back on the syringe to 1ml mark until blood can be seen coming into the syringe and then continue to gently withdraw blood into the syringe. This allows time for the pressure activated valve (if present) to open and helps decrease the risk of hemolization of the sample.
Note: It may take up to 30 seconds to fill a 10ml syringe
 8. Using the blood transfer device, transfer the blood into the tubes. Do not inject blood into the blood specimen tube. Allow the vacuum to draw the blood from the syringe to avoid damaging the specimen.
Note: To achieve a quality specimen, transfer the specimen to the blood tube immediately after withdrawal to ensure the blood mixes with the required tub additive without delay.
 9. Immediately after completing blood collection, flush line with 0.9% sodium chloride using the stop and start method to create a turbulent flow to clear the interior of the lumens.
 10. Resume IV infusions if applicable.
 11. Label all tubes and place them in a plastic bag for transportation to the lab with the appropriate order/requisition.
 12. Remove gloves and perform hand hygiene.
 13. If clinician is unable to successfully complete blood draw, the ordering provider is to be notified.
 14. Document:
 - a. Indicate CVC as source of specimen in EHR and on lab requisition as appropriate.
 - b. Patient's reaction and any other pertinent observations
 - c. Laboratory where specimens were taken for processing.
 - d. Results of blood testing are to be followed up within 24 hours of being drawn or document otherwise in patient's clinical record.
 - e. Report results to health care provider; bloodwork results are to be faxed to the ordering provider either by the lab of disposition or by the nurse responsible for the bloodwork.
 - f. Follow-up (telephone) verification of receipt of the results and any new orders are the responsibility of the nurse
 - g. Any abnormal/critical lab results received from the answering service after hours are to be reported immediately to the ordering provider by the nurse on call. The staff nurse will be responsible for follow-up on the abnormal/critical lab values with the ordering provider.