

Vermont Psychiatric Care Hospital Policy and Procedure		
Venipuncture Blood Collection		
Effective: April 2019	Revised: August 2024	Due to Review: August 2026

POLICY

This policy establishes a standard for the practice of collecting blood specimens by venipuncture that is both effective and safe for hospitalized individuals and practitioners.

This policy applies to licensed medical and nursing staff employed at the Vermont Psychiatric Care Hospital (VPCH) who have received training and have been deemed competent in the blood collection procedure.

PROCEDURE**Identification:**

In accordance with hospital identification policy, two forms of identification shall be used to confirm the identity of a hospitalized individual. Compare the name and DOB to the label, and specimen collection order.

- If there is no discrepancy, proceed with the blood draw.
- If there is a discrepancy, do not proceed with the blood draw until the discrepancy has been resolved.
- Review the order chronology for any blood collection restrictions/requirements.

Specimen:

1. Use proper venipuncture technique and collection tubes to obtain specimens.
2. Use the CVMC resource (provided in the reference section and Appendix A) to determine specimen requirements.
3. Take note of whether a lab requires fasting prior to specimen collection.
4. Some samples must be drawn at timed intervals because of medications, fasting requirements, and biological variations. It is important to collect the specimen within the specified time interval and ensure any necessary restrictions were adhered to.
5. Some samples may also have special requirements i.e. on ice, etc.
6. Note: If blood is drawn from the artery, indicate on label that specimen is not venous blood.

Process:

1. Prepare specimen labels.
2. Assemble blood drawing supplies needed for ordered specimen collection.
3. Identify the individual using two approved identifiers.
4. If fasting was required for an ordered test, confirm that the individual has fasted. Some tests require dietary restrictions, so verify that such restrictions were implemented if applicable.
5. Explain the procedure.
6. Perform hand hygiene and put on gloves and any other personal protective

- equipment as needed to comply with standard or otherwise ordered precautions.
7. The individual should be positioned in a chair or lie on a bed so they are comfortable and fall risk is reduced (particularly if they are prone to fainting).
 - a. The individual should have a sleeve rolled up and extend their arm in a dependent position to form a straight line from the shoulder to the wrist. A slight bend in the elbow may be important in avoiding hyperextension of the arm.
 - b. Support arm using blood drawing chair arm, bed, or a pillow, etc.
 8. Visual inspection and palpation should be used to choose the most appropriate vein and needle size.
 9. Apply the tourniquet, if appropriate, approximately 3-4" inches above identified venipuncture site.
 - a. The tourniquet should not be applied longer than 1 minute.
 - b. If the tourniquet must be re-applied to the same site, you should wait 2 minutes before re-applying tourniquet.
 - c. If the tourniquet fails to dilate the vein, have the individual make a fist. (note: The individual should not pump their fist).
 10. Vein selection (see diagram in Appendix B):
 - a. Use your index or middle finger to palpate the vein.
 - b. Feel for the median antecubital vein first. The cephalic vein, located on the outer edge of the arm, would be the second choice. The third choice would be the basilic vein, lies on the inside edge of the arm.
 - c. If a suitable vein is not felt, remove the tourniquet and check the other arm.
 - d. Dorsal hand and wrist, or forearm veins are acceptable venipuncture sites if the antecubital veins are inaccessible.
 - e. Do not draw from the palmar surface of the wrist as the nerves lie very close to the surface and can easily be injured by the needle.
 - f. Avoid areas with burns, scarring, rashes, moles, hematomas and infection.
 - g. Individuals that have had mastectomies should not be drawn on the mastectomy side, unless permission is granted by the provider and it is documented in the individual's chart.
 - h. Individuals with a cannula, fistula or vascular graft should not be drawn in the arm in which they are dwelling.
 - i. Blood draws in the lower extremities (feet, ankles, calves) are not permitted, unless permission is granted by the provider and it is documented in the individual's medical record.
 11. Cleanse the individual's arm with an antiseptic swab according to manufacturer's instructions and allow to dry. (do not use alcohol swabs to clean venipuncture site if collecting specimen for blood alcohol testing).
 - a. Clean with a circular motion from the center outward.
 - b. Allow the site to air dry.
 - c. If anything should touch the site after cleansing, re-clean the site prior to the venipuncture.
 - d. If after cleansing it is necessary to re-palpate the vein, be sure to palpate above the intended puncture site, but not the site itself, so as not to contaminate the puncture site.


12. Uncap the needle.
13. Anchor the vein by pressing 1-2 inches below the venipuncture site drawing the skin taut.
14. Perform venipuncture:
 - a. Line up the needle in the same direction as the vein.
 - b. With the bevel of the needle facing up, puncture the skin approximately $\frac{1}{4}$ to $\frac{1}{2}$ inch below the palpable vein. Enter the vein at about a 15-30-degree angle.
 - c. Push the first tube onto the back of needle without moving the needle in the arm.
 - d. If you have successfully entered the vein, blood will flow into the tube.
 - e. Once good blood flow has been established, you release the tourniquet. The individual may relax their fist.
 - i. For difficult veins, it is acceptable to leave the tourniquet tied to ensure you are able to get the required volume of blood.
 - ii. The tourniquet should not be left on the arm for more than 1 minute.
 - f. Allow the tube to fill.
 - g. Remove the tube from the back of the needle without moving the needle in the arm. Mix tube by inversion.
 - i. Inversion: gently invert each tube and then return to an upright position as you remove it to help mix the additive with the specimen. This counts as one inversion. Perform the number of inversions indicated by the tube's additive. (Appendix B)
 - h. Continue to fill additional tubes using the correct order of draw to collect the appropriate tubes and volume of blood required to perform the ordered testing.
 - i. Order of draw and mixing of tubes (Appendix B):
15. Once all the blood has been collected and the last tube has been removed from the vacutainer holder, place a gauze pad over the puncture site, and slowly and gently remove the needle applying gentle pressure.
16. Remove the needle and engage the needle safety feature.
17. Discard the used needle into a sharp disposal container as soon as possible.
18. Apply pressure to venipuncture site with gauze for 2-3 minutes or until the bleeding stops.
19. Apply pressure bandage. Advise individual to leave the bandage on for 15-20 minutes.
20. Label the specimens immediately after collection. It is preferable to label in the presence of the individual, but this may not always be safe/possible.
21. Place the labels on the specimens or handwrite the individual's full name and DOB on the specimens.
 - a. Verify specimen labeling by validating identity.
 - b. If the individual's identification matches specimen labeling, initial all tubes collected.
 - c. Purple top tubes must be labeled with the individual's full name, DOB, date and time of collection, and the collector's initials (just in case it is needed)

for a blood bank confirmation at a later time).

- d. Improperly labeled specimens will be rejected by the laboratory.
- 22. Reassess the venipuncture site.
- 23. Remove gloves and perform hand hygiene.
- 24. Complete documentation in the Electronic Health Record.
- 25. Distribute specimens to receiving laboratory.

References:

- Appendix C – Helpful Procedural Notes
- CVMC Website Lab Catalog – ([LINK](#))
- Venipuncture. (2016). In *Lippincott nursing procedures* (7th ed., pp. 822-825). Philadelphia, PA: Lippincott Williams & Wilkins. ([LINK](#))

Approved by	Signature	Date
Emily Hawes, Commissioner, Vermont Department of Mental Health	 <p>DocuSigned by: Emily Hawes C50275615A62462...</p>	8/27/2024

Appendix A – Order of Draw and Inversion (CVMC Laboratory)

RML SPECIMEN COLLECTION ORDER OF DRAW

<p>8-10</p> <p>1st</p> <p>BLOOD CULTURES</p> <p>PEDIATRIC</p> <p>ACID FAST</p> <p>ANTIBIOTIC</p>	<p>3-U</p> <p>2nd</p> <p>BLUE TOP</p> <p>SODIUM CITRATE</p> <p>Blue top must be filled to volume.</p>	<p>Glass-NIA</p> <p>3rd</p> <p>RED</p> <p>No gel</p> <p>Plastic-5</p>	<p>4th</p> <p>GOLD TOP</p> <p>With gel</p> <p>S</p>	<p>5th</p> <p>LIGHT GREEN TOP</p> <p>Lithium Hep</p> <p>8-10</p>	<p>6th</p> <p>LAVENDER TOP</p> <p>EDTA</p> <p>8-10</p>	<p>7th</p> <p>PINK TOP</p> <p>BLOOD BANK ONLY</p> <p>EDTA</p> <p>8-10</p>	<p>8th</p> <p>GRAY TOP</p> <p>NaFL</p> <p>K Oxalate</p> <p>8-10</p>
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Appendix B – Vein Selection

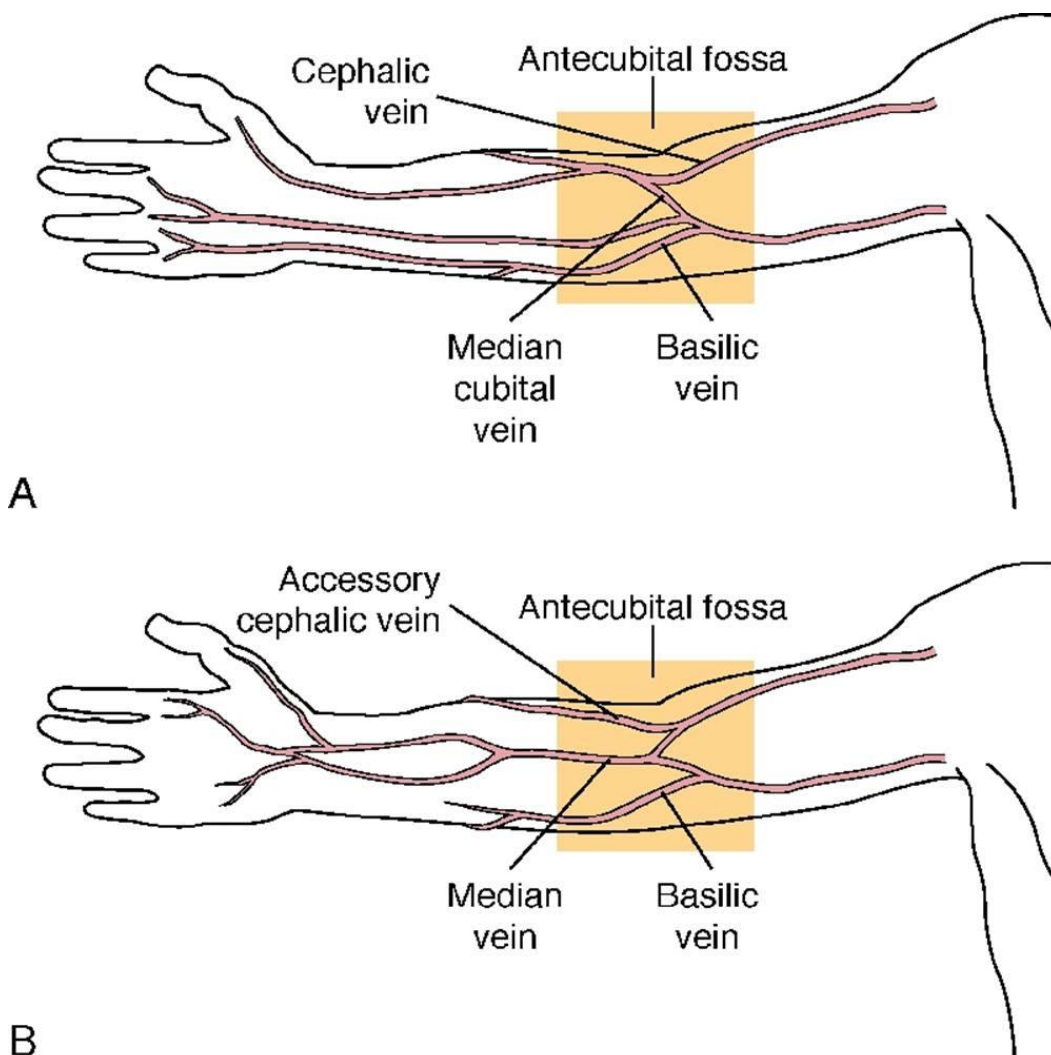


Image source: <https://doctorlib.info/hematology/rodak-hematology-clinical-principles-applications/4.html>

Appendix C - HELPFUL PROCEDURAL NOTES

- If the nurse is unable to obtain all the required blood with the first venipuncture, a second venipuncture may be performed.
- An adult should not be stuck more than twice by the same nurse/phlebotomist.
- If you do not hit the vein, do not readjust the needle more than twice.
- A finger stick may be performed if the specimen requirements allow.
- An individual with blood draw restrictions will have such restriction noted on the order chronology.
- Blood for electrolytes is best drawn without a tourniquet. If a tourniquet is necessary, keep it loose and remove it as soon as possible.
- Use a warm washcloth or heat warmer to help pronounce the veins.
- **DO NOT SLAP THE ARM.**
- When drawing blue top tubes while using a butterfly, prime the air out of the butterfly tubing by inserting either a red or blue top tube onto the back of the needle until blood enters the blood collection tube. Discard the tube and then proceed to draw the blue top tube.
- It is helpful to CVMC if symptoms are noted on the lab sheet that gets sent to help them identify the appropriate code.
- If drawing labs that need to be processed in <20 minutes, specimens should be immediately delivered to CVMC. (ammonia specifically)
- If the individual feels sick, make them comfortable, recline them, instruct them to take deep breaths and apply cold compresses to the forehead or the back of the neck. Give the individual an emesis basin if they feel they are going to vomit.
- Nerve damage can occur during venipuncture, usually if probing occurs. The individual may experience an immediate pins and needles feeling, tingling up and down the arm, numbness or severe, shooting pain.
- Should an individual experience these symptoms during the blood draw, stop the blood draw immediately.
- Individuals with symptoms of nerve damage should be consulted by their provider for evaluation.