

Phlebotomy Specimen Collection and Handling

Purpose: The purpose of this section is to establish guidelines for specimen collection and labeling being referred to as the Standard of Procedures for phlebotomy.

Scope: This applies to all personnel collecting blood for testing at Pocono Medical Center Laboratory.

Safety: Follow Standard Precaution procedures when collecting specimens to minimize risk to lab staff and yourself.

References: Pocono Medical Center Laboratory Policies, NCCLS, and American Association of Blood Banks

Identification of Patient

It is the policy of Pocono Medical Center that proper documentation of all specimens be maintained from collection through to the report.

Inpatient: Patient must have a hospital identification bracelet to match up with printed labels or requisition form containing patient's name, medical record number, test to be performed. The name of the patient and medical record number must match before the specimen is drawn.

Outpatient: An outpatient should be identified by having the patient or parent verify their name and date of birth.

Venipuncture Procedure

When drawing blood samples, the trained phlebotomist or other patient care provider must be able to perform the venipuncture procedure with skill. The following is NCCLS guidelines. This section is intended to be a guide. By following the Standard of Practice for phlebotomy, you should obtain adequate sample to yield valid results.

1. Prepare the accession order or review the physician orders.
2. Always wash your hands before and after each patient.
3. Identify the patient by means of two patient identifiers.
4. Verify patient's diet restrictions as appropriate. Is the patient fasting?
5. Assemble necessary supplies and gloves.
6. Reassure the patient. Be calm and confident.
7. Position the patient in a chair.

8. Verify paperwork and select the tubes. Refer to General Blood Collection Tube Requirements Chart.
9. Ensure the patient's hand is closed.
10. Select a vein site. Choose appropriate equipment.
11. Cleanse the venipuncture site with alcohol in a circular motion. Allow to dry.
12. Apply the tourniquet for no longer than one minute.
13. Inspect the needle. Use safety equipment.
14. Perform venipuncture using the correct order of the draw. Refer to Proper Tube Order When Collecting Blood Chart.
15. Rotate tubes gently to mix.
16. Ensure patient's hand is open.
17. Release and remove the tourniquet.
18. Place the gauze pad over the puncture site.
19. Remove the needle. Never recap needle.
20. Apply pressure to venipuncture site until bleeding has stopped
21. Bandage the patient's arm.
22. Dispose of the needle unit in a puncture resistant container.
23. Label the tubes and record the date and time of collection; collector's initials, first and last name of patient; medical record number or date of birth
24. Special handling of tubes (chilling or warm) should be done now.
25. Clean up all supplies and waste to discard in appropriate containers.
26. Leave patient courteously.
27. Send properly labeled blood collection tubes to the laboratory.
28. Medical alcohol testing uses betadine instead of alcohol to cleanse site.

Refer to Blood Culture collection for proper collection of blood cultures.

Labeling of Specimens:

The patient's tests are ordered on the laboratory information system from physician's orders to generate labels. The person processing the sample affixes the proper label to each sample, carefully comparing the information on the computer label to the information written on the sample (name, date, medical record number). If printed labels are available at the time of collection, the label may be affixed to the tube after the patient has been properly identified (Inpatient – Name and Medical Record #; Outpatient – Name and Date of Birth).

The person labeling the tubes must write their initials on the label. All samples must be labeled at the bedside or in the presence of the patient.

Blood Bank Specimens

MUST ALWAYS LABELED AS FOLLOWS:

- patient's first and last name
- date of birth for outpatient or medical record number if inpatient
- collector's initials
- date and time of collection

If pre-printed labels with the correct demographic information are available, use them and initial the labels.

If using the computer labels, they should be affixed so when the tube is lifted up out of a rack, you can read the patient's name going down the tube, with the accession number near the cap of the tube. Also, cover the paper label leaving the rest of the tube visible for inspection of quantity and quality of specimen. On mint green and yellow cap tubes allow for a small portion of the colored label to be visible on the upper portion of the tube.

If no computer labels are available, then legibly write the patient's first and last name, medical record number if inpatient, time and date when specimen was drawn and collector's initials.

The laboratory cannot accept unlabeled or mislabeled specimens and will reject them.

SPECIMEN HANDLING

After collection, the specimen must be processed in a timely manner to ensure accurate results. Please consult the alphabetical Test Menu for specific handling instructions. After labeling, seal the specimen in the zipper pocket of a specimen transport bag. Place the test requisition form and any other associated paperwork in the outer pocket. Utilize the tube system or hand-deliver the specimen to the laboratory immediately.

COMMON SPECIMEN COLLECTION / HANDLING ERRORS

An error in collection can compromise the integrity of the specimen, which in turn can result in inaccurate test results. Errors that affect any type of specimen are:

- Improper labeling. Unlabeled or mislabeled specimens will not be tested.
- Incomplete or missing requisition form.
- Failure to provide sufficient quantity of specimen for testing (QNS).
- Using the wrong container or tube type.
- Collecting the specimen at the wrong time (e.g. peak drug level collected just prior to dosing).
- Failure to adequately tighten specimen container lids, resulting in leakage and/or specimen contamination. IV fluid contamination due to collection of blood from above an IV sites.
- Hemolysis, caused by:

- using needles smaller than 20- or 21-gauge
- forcibly expressing blood from a syringe into a tube, rather than allowing the vacuum to draw in the blood
- leaving wet alcohol on the skin during venipuncture
- removing the needle from the vein prior to complete filling of the tube, resulting in cell damage due to a rush of air into the tube
- filling the tube too slowly, often due to improper (too shallow) entry into the vein
- drawing from IV catheter or when starting the IV
- Clotting of anticoagulant tubes caused by improper/inadequate mixing.
- Failure to label urine specimens as 'voided' or 'catheterized'.
- Failure to store samples properly for delivery to laboratory, (i.e. refrigerate a stool specimen for *C. difficile*).

Blood Specimen Rejection Policy

The following will be rejected for testing and the patient will be called back to be re-stuck.

- Clotted or QNS (minimum 1cc or top the bottom of label) whole blood specimens for CBC.
- Clotted or quantity is not sufficient for coagulation testing (PT, APTT, fibrinogen) in blue top tubes (adequate draw to top of label)
- Specimens that are mislabeled.
- Specimens which should have been specially handled and were not e.g. ammonia should be on ice and was not.
- Hemolysis causes results to be affected and should be rejected and recollected.