

Blood Collection Policy

PURPOSE

Certain personnel have been trained to collect laboratory blood specimens. This protocol emphasizes the most critical steps in patient identification, specimen requirements, and specimen labeling. It is a condensed version of current laboratory policies. For the safety of the phlebotomist, personal protective devices are required to guard against needlesticks and must be used when performing phlebotomy to prevent accidental injury and exposure to blood borne pathogens.

Lab Requisition

The lab requisition must contain all the following:

1. Complete legal first and last name of authorized person requesting the lab test.
2. Patient's name
3. Patient's date of birth
4. Test(s) to be performed
5. Source of sample when appropriate
6. The date and, if appropriate, the time of sample collection

Patient/Sample Identification

All patient samples are required to have "Two Patient Identifiers" and collection information.

1. Legal First and Last Name
2. Date of Birth
3. Collection Date/Time and collector initials.

Best practice for patient safety includes labeling the sample at the time of collection in front of the patient. This practice prevents errors and mislabeling of samples.

Samples received at MedLabs that do not meet these standards will be rejected.

Tube Requirements for Laboratory Blood Tests

The color of the stopper in the vacuum tube(s) used for blood collection indicates the presence of or type of additive in the tube. Many tests require a specific type of additive to prevent clotting. Refer to the table below to determine the type of specimen that will be obtained for each color. Also use the following table for order of draw when multiple tubes are being collected. The order in which specimens are drawn can impact test validity. Fill the tubes with additive to the indicated line.

Tube Draw Order	Test	Fill Volume (mL)	Additive	Type of Specimen Obtained
1. Blood Culture Bottle	Blood Culture	6 to 10	Culture Media	
2. Blue-top	Protime, PTT, D-Dimer, Fibrinogen, PFA	2.7	Sodium Citrate	Plasma or WB
3. Red Speckled or Gold-top	BMP, CMP, PSA, Electrolytes, Selected Tests	7	Gel Separator No Additive	Serum
4. Red-top	Selected Testing	4	No Additive	Serum
5. Mint Green -top	BMP, CMP, PSA, Electrolytes,	3 to 4	Lithium	Plasma

	Selected Tests		Heparin	
6. Kelly Green –top	Cytogenetics, Ammonia Other specialty testing	3 to 4	Lithium Heparin	Plasma or WB
7. Lavendar-top	CBC, Platelet, H/H	3	EDTA	Plasma or WB
8. Pink-top	Type and Screen, Crossmatch	6	EDTA	Plasma or WB
9. Gray-top	Lactic Acid	2	Sodium Fluoride	Plasma or WB

Specimen handling considerations:

- Immediately after draw, mix all blood specimen tube(s) 8 to 10 times by gentle inversion to activate the additive and/or prevent clotting.
- Using a vacutainer with hub is the best technique for drawing laboratory blood specimens.
- For syringe draws, be sure to draw back plunger slowly to prevent specimen hemolysis and transfer blood to vacutainer immediately to prevent clotting.
- The tourniquet should not be on the arm for longer than 1 minute.

Specimen Processing

Red speckled, gold and red top tubes are required to clot for 30 minutes after they have been mixed.

Serum samples are then placed in a centrifuge and spun for 15 minutes at 3500 RPM’s.

When the centrifuge has stopped remove the tubes and ensure the gel has formed a good seal between the serum and the cells. If you do not have a good seal, remove the serum from the tube and place it in a transfer tube. The sold RED cap tube does not contain gel, remove the serum and place it in a transfer tube.

Lavendar top tubes (EDTA) are seldom spun. A CBC test is affected if the Lavendar (EDTA) tube is spun. Lab personnel are unable to tell if an EDTA tube has been spun and resuspended.

Blue top (Na Citrate) tubes are usually for coagulation studies. Protimes are stable at room temperature for 24 hours. If a protime is not received in the lab within 24 hours, spin the sample for 10 minutes and transfer plasma to a properly labeled tube and freeze. PTT’s are more sensitive, they should always be separated and frozen, unless received in the lab within 4 hours of collection. Refer to catalog for other individual test storage requirements.

Specimen Storage

Samples must be stored appropriately before and during transport to the testing lab. Refer to the individual tests for storage requirements.

Specimen Transport

Properly labeled and processed samples are required to be in a secondary container (Biohazard bag) for transport. Every specimen needs to be accompanied with a requisition that clearly identifies the patient and testing to be done.

Place specimens in the appropriate cooler for transport to the testing lab.