





















Specimen Collection and Transport Systems

Remember: Always check the expiration date on the tubes and transport kits prior to collection.

Expired tubes will NOT be processed by the laboratory, and the sample must be redrawn to ensure accurate results.

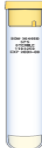



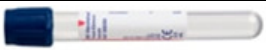



The vacuum blood collection tube does not fill completely to the stopper, but only to the required level. Proper dilution of the blood and additive in the tube is critical. Be sure that each tube is allowed to fill until the blood flow stops. If unsure, wait until an additional 1-2 seconds before removing the tube from the holder and withdrawing the needle from the arm. Improperly filled tubes will be rejected by the laboratory, and the sample must be re-drawn to ensure accurate results.

Order of Draw		Order in which the tubes should be collected to minimize cross contamination. Visit www.testmenu.com/UHElyriaMedicalCenter for specific test requirements.	Invert Tube	Effects of under filling.
		Clear No-Additive Discard Tube- *When using a winged blood collection set (butterfly) for venipuncture and a coagulation (citrate) tube is the first specimen to be drawn, a <u>discard tube should be drawn first</u> . This discard tube must be used to fill the tubing's "dead space" with blood. This important step will ensure maintenance of the proper blood-to-additive ratio of the blood specimen. This discard tube should be a non-additive or coagulation tube.	N/A	
		Bact/Alert Bottles Bact/Alert bottles used for blood cultures. Blood in Bact/Alert bottles using aseptic techniques. Collection recommendations: Adult: 8-10 mL per bottle, Collect two from separately prepared sites. <u>Do not collect blood cultures and trace element from the same venipuncture.</u> Label code: BLDVIAL Note: Both vials must be labeled, Full name, date of birth, collection date, time, site of collection. Bottles are labeled vertically. Do not cover up manufacturer barcode. Cultures are to be transported in a separate biohazard bag. Same BLDC sets/same patient/same time can be bagged together	Invert tube gently 3-5 times.	An optimal volume of blood per culture is critical because the concentration of organisms in most cases of bacteremia is low, especially if the patient is on antimicrobial therapy.
		Light Blue (Na/citrate 3.2) *When using a winged blood collection set (butterfly) for venipuncture and a coagulation (citrate) tube is the first specimen to be drawn, a <u>discard tube should be drawn first</u> . Label codes: BLUE, BLUETR	Invert tube gently 8-10 times	Coagulation results are erroneously prolonged. (a completely filled tube is required)
		Gold (SST) Gel barrier tube. Allow to clot for 30 minutes, before centrifuging. Label codes: SST, SSTTR	Invert tube 4-5 Times	Poor barrier formation: Insufficient sample
		Red Clot Activator. Allow to clot for 30 minutes, before centrifuging. Label codes: RED	N/A	Insufficient sample
		Green Lithium Heparin. The green top heparin tubes contain either the lithium or sodium salt of the heparin anticoagulant. Lithium heparin should not be used for lithium determinations. All of the heparin is spray dried on the wall of the tube. Label codes: GREEN, GRNTR <i>Use only sodium heparin green top tubes for all Cytogenetic testing.</i> <i>Example: Chromosome Analysis.</i>	Invert tube gently 8-10 times	Using plasma instead of serum speeds the testing process by eliminating fibrin clots and yielding greater specimen volume.
		Mint Green PST Lithium Heparin plasma separator tube. PST tubes contain spray coated lithium heparin and a gel for plasma separation. They are used for plasma determinations for chemistry. Label codes: GRRENGEL, GGELTR	Invert tube gently 8-10 times	Insufficient mixing may lead to micro clot and fibrin strand formation.
		Lavender (EDTA) functions by binding calcium in the blood and keeping the blood from clotting. Label codes: LAV, LAVTR	Invert tube gently 8 -10 times.	Erroneously low blood cell counts & hematocrits; morphologic changes to RBC's staining alterations.
		Pink (k2EDTA) Plus tubes are intended for routine immunohematology testing, including red cell grouping, Rh typing and antibody screening. **Blood Bank samples require the collector who confirmed positive patient identification sign the ordering requisition and initial the collection tube. Label code: BB_PINK	Invert tube gently 8- 10 times	Positive screening results require additional testing (work-up). Insufficient sample would require re-collection.
		GRAY Potassium Oxalate/sodium fluoride. Sodium fluoride acts as the glycolytic inhibitor and prevents the cells in the blood from utilizing the glucose. The glucose is stable for 24 hours. Label codes: GRAY, GRAYTR	Invert tube gently 8-10 times	
BD	Greiner			

Specimen Collection and Transport Systems

Remember: Always check the expiration date on the tubes and transport kits prior to collection.

Expired tubes will NOT be processed by the laboratory, and the sample must be redrawn to ensure accurate results.




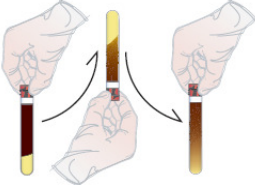
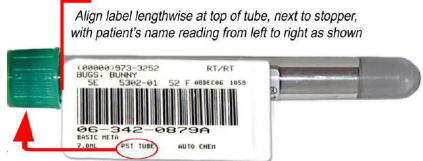
	ACD <u>Vacutainer</u> <u>Glass tube</u>	Acid Citrate Dextrose solutions are available in two formulations. (Supply-provided by lab) Used for blood bank studies, HLA Phenotyping The formulations are as follows: <table><tr><td></td><td>ACD Solution A</td><td>ACD Solution B</td></tr><tr><td>Trisodium citrate</td><td>22.0 g/L</td><td>13.2 g/L</td></tr><tr><td>Citric Acid</td><td>8.0 g/L</td><td>4.8 g/L</td></tr><tr><td>Dextrose</td><td>24.5 g/L</td><td>14.7 g/L</td></tr></table>		ACD Solution A	ACD Solution B	Trisodium citrate	22.0 g/L	13.2 g/L	Citric Acid	8.0 g/L	4.8 g/L	Dextrose	24.5 g/L	14.7 g/L	Invert tube gently 3-5 times	Choose the correct solution for test required, both tubes look the same.
	ACD Solution A	ACD Solution B														
Trisodium citrate	22.0 g/L	13.2 g/L														
Citric Acid	8.0 g/L	4.8 g/L														
Dextrose	24.5 g/L	14.7 g/L														
	<u>T-SPOT</u>	TB (Mycobacterium Tuberculosis test) Collect (1) 9 mL Lithium Heparin tube. Collect Monday-Friday only. Do Not collect the day of or before a Holiday. Label code: GREEN (Supply-provided by lab)	Invert tube gently 8-10 times													
	<u>NMR</u> <u>LipoProfile</u>	NMR includes a LIPID Profile (CHOL, TRIG, HDL, LDL) Z serum clot activator (Greiner) centrifuge to separate serum from cells within 1 hour of collection or keep refrigerated and centrifuge within 4 hours. Do no aliquot sample into a pour off tube. Keep in original collection tube. Label code: Special tube Label Text: NMR BLK/Yellow (Supply-provided by lab)	Invert tube gently 3-5 times													
Trace Elements Specimen Collection: A common misconception is that the preservative of a tube can contaminate a specimen, but the materials comprising the tube and the tube top are more of a consideration. Rubber stoppers in collection tubes other than the Royal blue are known to contain several elements that can contaminate a specimen and interfere with testing. In a tube other than the royal blue contamination can be introduced as the needle punctures the stopper Most holds true for transport tubes. A sterile tube is not necessarily a trace element-free tube.																
	<u>Royal Blue</u> <u>(Dark/Navy)</u> <u>Blue</u>	Serum Collection: Clot Activator. Allow to clot for 30 minutes before centrifuging. Collect using a stainless steel needles. Use non-powder gloves when handling and collecting. Wash the collection site with soap and water, followed by an alcohol swab. Some studies indicate that using alcohol alone is not as effective at preventing trace elements contamination. When multiple blood specimens are to be collected from one patient, the trace elements sample should be collected first. Once the phlebotomy needle punctures another rubber stopper, it is contaminated and should not be used for trace elements specimen collection. Immediately pour off the serum into a trace element free transport tube within 2 hours of collection. <u>Do not collect blood cultures and trace element from the same venipuncture.</u> Label code: DB NOADD 	Invert tube gently 8-10 times	Remove cells promptly after centrifugation and store in a metal free vial.  <p>Standard Transport Tube, Metal Free For heavy-metal serum, plasma, and urine testing</p>												
	<u>Royal Blue</u> <u>(Dark/Navy)</u> <u>Blue</u>	Na2EDTA-Trace element analysis requiring whole blood. Whole blood collection. Collect using a stainless steel needles. Use non-powder gloves when handling and collecting. Wash the collection site with soap and water, followed by an alcohol swab. Some studies indicate that using alcohol alone is not as effective at preventing trace elements contamination. When multiple blood specimens are to be collected from one patient, the trace elements sample should be collected first. Once the phlebotomy needle punctures another rubber stopper, it is contaminated and should not be used for trace elements specimen collection. <u>Do not collect blood cultures and trace element from the same venipuncture.</u> Label code: DB EDTA 	Invert tube gently 8-10 times	Choose the correct Royal (Dark/Navy) tube they look similar.												

Specimen Collection and Transport Systems

Remember: Always check the expiration date on the tubes and transport kits prior to collection.

Expired tubes will NOT be processed by the laboratory, and the sample must be redrawn to ensure accurate results.

Additional specialty collections and/or processing must be collected at the patient service center located within the community hospitals.

 <p>Acid Fast Bacillus (AFB) Culture, Blood</p> <p>Bactec: Media Myco /F Lytic LIS Label: BLD (Supply-provided by lab)</p>	 <p>Fungal Culture, Blood (FUNBL) Microbial isolator LIS Label: BLD (Supply-provided by lab)</p>	 <p>Syringe collections are not performed at the stand alone out patient service centers. Example: Blood Gas, Arterial and Coox panel. Report to outpatient registration area within a community hospital.</p>
<p>Why invert the tubes?</p> <ul style="list-style-type: none"> Most tubes contain an <i>ADDITIVE</i> or <i>CLOT ACTIVATOR</i> that needs to be mixed with the blood sample. Tubes with anticoagulants such as EDTA needs to be mixed to ensure the specimens does not clot. <p>How?</p> <ul style="list-style-type: none"> Holding tube upright, gently invert 180 and back. Repeat movement as prescribed for each tube. 5-10 times <p>When?</p> <ul style="list-style-type: none"> Immediately after drawing. 		
<p>When using a sticker to label the sample always place your labels straight and not wrinkled.</p>  <p>Align label lengthwise at top of tube, next to stopper, with patient's name reading from left to right as shown</p>		

Sample labeling:

All samples must be labeled at the bedside (in front of the patient) with the patient's full legal name, date of birth, collection date, time and site/source if culture. Label the sample container not the lid or the transport bag. Secure all containers by checking the cap or lids to insure sample integrity or avoiding any leakage.

Sample Orders:

Patient identifiers on the specimen container and the laboratory order form must match in order for the specimen to be processed. When submitting specimens for testing provide a copy of the patient's demographics, insurance card and a copy of the patient's photo ID.

Sample Collection Preparation:

Prior to each collection, review the appropriate test description, including the specimen type indicated, the volume, the procedure, the collection materials, patient preparation, and storage and handling instructions. <https://www.testmenu.com/UHElyriaMedicalCenter>

Samples and supplies: Remember do not store your supplies or place samples outside (lockbox) when the weather is extreme.

Cold or hot weather can affect the vacuum within your collection tubes, causing them to malfunction.

Questions: concerning collection, transport or storage, contact the Laboratory at 440-329-7531.

01/09/2023