TriHealth Laboratories TriHealth Test Directory Specimen Collection Tips and Helpful Hints

Tips for Successful Specimen Collection

- > Do not leave the tourniquet on the patient's arm for more than one minute at a time.
- Do not have the patient clench his/her fist while the blood is being drawn. This will reduce the possibility of analytical error.
- > Draw tubes in the proper order to prevent contamination from anticoagulants.

1 Blood Culture Bottle	
2 Sodium Citrate	Blue
3 Serum tube with or without clot activator or gel separator	Red Yellow Speckled Red
4 Heparin Tube	Green Light Green
5 EDTA Tube	Lavender Pink

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6 Oxalate/fluoride Tube



- 1. Blood culture tube
- 2. Sodium citrate tube (e.g., light blue top) *
- 3. Serum tube with or without clot activator or gel separator (e.g., yellow, red, or speckled top)
- 4. Heparin tube (e.g., green top)
- 5. EDTA tube (e.g., lavender top or pink top)
- 6. Oxalate/fluoride tube (e.g., gray top)

* If a butterfly vacutainer set is used, draw a plain red top tube before drawing the light blue top tube. The red top does not need to be full. Drawing the red top will ensure that the correct volume is collected in the blue top by making up for the amount of blood that is displaced by the butterfly tubing. The red top tube may be discarded.

- > Do not combine partially filled tubes. Never pour blood from one tube into another tube.
- Fill blue top tubes and gently invert 4-5 times to thoroughly mix the anticoagulant with the blood. Short samples cannot be tested since the ratio of blood to anticoagulant will be incorrect and the results will not be accurate. Lavender top tubes containing liquid EDTA must also be filled.
- When using a butterfly vacutainer kit (luer adapter) to draw a blue top tube, first draw a discard tube (plain red top tube). The discard tube is used to fill the blood collection set tubing's "dead space" with blood, but the discard tube does not need to be completely filled.
- Gently invert lavender top tubes 8-10 times to thoroughly mix the anticoagulant with the blood. Do not shake the tube since it may become hemolyzed and unsuitable for testing. Non-liquid EDTA tubes may be partially filled, but must be thoroughly mixed to prevent clotting. Clotted samples cannot be tested because the results will be inaccurate.
- Gently invert SST tubes about 5 times to activate the clot activator on the interior walls of the tube.
- Use a boric acid tube to properly preserve urine cultures.
- Use a conical urinalysis preservative tube (red and yellow stopper) to preserve urine for urinalysis.

Helpful Hints for Difficult Venipunctures

Position Patient

- Have patient lie down if possible.
- Position arm on pillow or towel for proper support.

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- Check both arms, forearms, and hands for veins.
- Make plenty of room for yourself.

Use Butterfly Vacutainer Kit (Luer Adapter)

- For patients with small or damaged veins.
- When maneuverability is needed.
- When obtaining blood from hand or forearm.

If Vein Cannot Be Seen Or Palpated

- Use warm towel or cloth on arm to increase circulation.
- Do not hyperextend the arm; doing so leaves the skin too taut for feeling a vein.
- Ask patient to dangle arm to side (or off side of bed) to allow gravity to increase blood flow to arm.

If No Blood Enters Collection Tube

- Advance needle a bit more.
- Slowly pull back needle to center of vein if you suspect that you have gone through the vein. Blood will begin to flow when needle is repositioned.
- Do not reposition the needle.

If you are unable to obtain the required specimen after two attempts, ask another experienced professional to assist. This will prevent further damage to the vein and minimize stress to the patient