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Clinical Laboratory Update

Specimen Handling



Important
Notice

Common Specimen Collection/Handling Errors

- ◆ 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.
- ◆ Hemolysis, caused by:
 - using needles smaller than 20- or 21-gauge
 - 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
- ◆ Clotting of anticoagulant tubes caused by improper/inadequate mixing.
- ◆ Failure to store samples properly for delivery to laboratory.

Proper Tube Order When Collecting Blood

To ensure the most accurate test results, vacutainer tubes should be filled in the following order:

1. **Blood Culture/Sterile Tubes**
2. **Blue** (Coagulation Tube- Sodium Citrate)
3. **Red** or **Yellow** (Serum Tube with or without Clot Activator, with or without Gel)
4. **Green** (Heparin Tube) **Light Green** (Heparin Tube with Gel Separator)
5. **Lavender/Purple** or **Pink** (EDTA)
6. **Grey** (Fluoride Tube)

Centrifuge Procedures

Please follow these instructions when using the Barrier Tube or the SST tube with Clot Activator in order to obtain the most accurate test results:

1. Collect blood specimen using the usual venipuncture technique. Fill tube completely.
2. Gently invert barrier tube five times to mix clot activator with blood.
3. Allow blood to clot for 30 minutes.
4. Centrifuge at High Speed for 15 minutes.
5. Remove from centrifuge. Barrier will have formed, separating cells from serum. All of the separation gel should have moved from the bottom of the tube to form a barrier layer.
6. The sample is now ready to be transported to the laboratory. Do not remove stopper.

If you have any questions, please don't hesitate to contact our Client Service Department at 718-232-1515, Ext 1.

Regards,

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