

Core Lab General Manual Core Laboratory	Document No. CORE 6055 R Page 1 of 3
Splitting and Aliquoting Specimens	Effective: 01/2010 Version: 1.1

Policy Statement	The Core Laboratory is committed to insuring positive specimen identification and maintaining specimen integrity for each sample received in the laboratory that requires separation from the original collection container.
Purpose	To ensure specimen integrity when specimens are aliquoted.
Scope	The procedure applies to all laboratory specimens that require splitting and aliquoting. The split and aliquoted samples may then be sent to the different lab sections or to an outside laboratory for further testing.
Responsibility	The process of splitting and aliquoting specimens is the responsibility of the lab assistants and medical technologists

Aliquoting Requirements:

- Always utilize a fresh pipette each time material is aspirated.
- Never add a sample into an unlabeled container.
- Never mix sample types in one container.
- Never return an aliquot to the original container.
- The original container and the aliquot tube must be legibly initialed by the person performing the aliquoting.
- If a label is placed over an existing label, the new label must be initialed by the person performing the task.

Specimen Types:

Anticoagulated Whole Blood: (Lavender, Pink & Blue tubes)

1. Specimens should remain in the original tube with the barcode label attached and assayed by the hematology/coagulation section prior to being forwarded to other sections for testing and/or processing of the specimen.
2. The label for the other section must accompany the original specimen.

Serum Tubes: (SST & Plain Red tubes)

1. Specimens should be centrifuged to separate the cells from the serum.

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2. Once centrifugation is complete, the specimen can be split into the labeled polypropylene tubes required for testing in each laboratory section. Samples without a gel barrier should be separated from contact with cells as soon as possible, or as stated in the laboratory test directory.

Anticoagulated Tube: (Green Li-heparin tube with gel barrier & Gray)

1. Specimens should be centrifuged to separate the cells from the plasma.
2. Once centrifugation is complete, the specimen can be split into the labeled polypropylene tubes required for testing with the bar code label for each laboratory section.
3. Samples without a gel barrier should be separated from contact with cells as soon as possible, or as stated in the laboratory test directory.

Random Urine Specimens:

When a random urine specimen is received and requires urinalysis along with a urine culture, the following precautions must be taken to eliminate the risks of contaminating the specimen:

1. If a kit is used;
 - a. Swirl the sterile specimen cup to make sure any sediment are properly mixed in the sample.
 - b. Place the cup upright on a clean, flat surface. Container may be tipped at an angle if specimen volume is limited.
 - c. Peel back label on cap to expose the integral sampling device.
 - d. Place evacuated tube into cavity on cap, stopper down, advance the tube over puncture point to pierce stopper. (Culture and Sensitivity Preservative tube should be filled first when collecting multiple samples).
 - e. Hold tube in position until filled. Remove tube from device. Invert Culture and Sensitivity Preservative Tube to ensure complete dissolution of the preservative. When using the UA preservative tube, mix tube 8-10 times by inversion. (Repeat steps c & d when multiple samples are needed.)
 - f. Label evacuated tube(s)

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- g. Treat container as a contaminated needle device and dispose of accordingly in a biohazard container approved for sharps.
2. If a sterile container is used, a transfer device will be needed to split the specimen.
 - a. Swirl the sterile specimen cup to make sure any sediment are properly mixed in the sample.
 - b. Remove the lid of the sterile cup, and submerge the tip of the transfer device into the container.
 - c. Place evacuated tube into holder portion of the transfer device, stopper down, advance the tube over puncture point to pierce stopper. (Culture tube should be filled first when collecting multiple samples).
 - d. Hold tube in position until filled. Remove tube from device. Invert Culture and Sensitivity Preservative Tube to ensure complete dissolution of the preservative. When using the UA preservative tube, mix tube 8-10 times by inversion. (Repeat steps c & d when multiple samples are needed.)
 - e. Label evacuated tube(s)
 - f. Treat transfer device as a contaminated needle and dispose of accordingly in a biohazard container approved for sharps.

When a random urine specimens is received that requires a urinalysis and urine drug screen, the sample for the drug screen should be aliquoted into a labeled polypropylene tube and centrifuged.

24 Hour Urine Collection:

When a 24 hour urine collection sample is received, the total volume of urine in all containers received must be documented. The container(s) must be well mixed prior to aliquoting. Ten mL for each 1000mL of urine received should be mixed together and retained in a 50mL polypropylene conical container. In the event that more than 5000mL of urine is received, five mL for each 1000mL of urine should be retained in the conical container. An aliquot should be taken from the conical container for analysis. In the event that a preservative is required for the assay, an aliquot should be made for each different type of preservative. Indicate the added preservative on the specimen label. All chemistry specimens must be centrifuged prior to analysis.