

## CENTRIFUGATION OF BLOOD SPECIMENS

### PRINCIPLE:

The process of placing specimen tubes in a centrifuge to separate the cells from the serum or plasma.

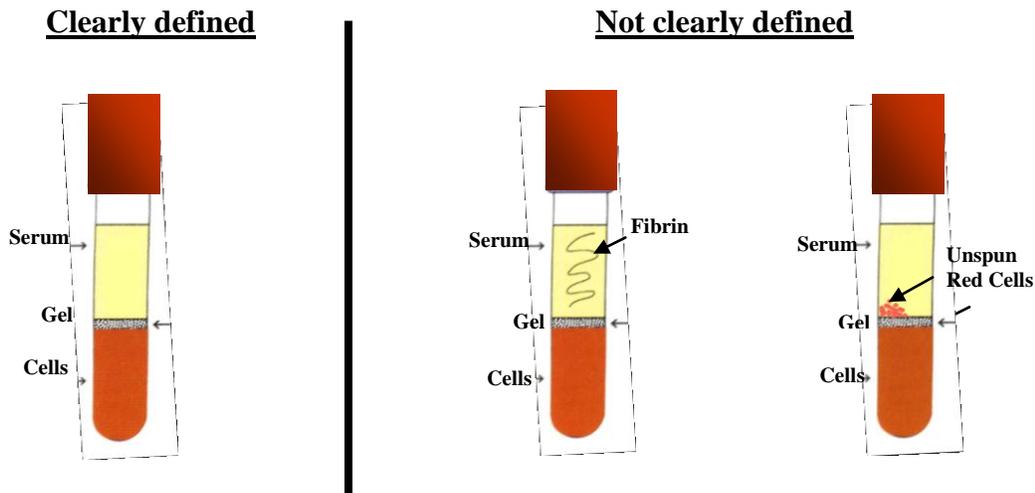
### Definitions-

Plasma – the liquid portion of the blood after centrifugation of a specimen in which an anticoagulant has prevented a clot formation.

Serum – the liquid portion of the blood after centrifugation of a specimen that has been allowed to clot (red or gold topped tubes)

### PROCEDURE:

- Place the newly drawn tube in a test tube rack.
- Wait 20 - 30 minutes after draw time for a serum tube to clot. Clotting time will depend on patient's condition and medications such as Heparin, Coumadin and Aspirin therapy which prolong clotting.
- Balance each tube to be spun with the **same sized tube** that contains an **equal** volume of fluid. The balance tube may contain water.
- The same sized tubes should be placed exactly opposite (diagonally) each other in the centrifuge.
- Close centrifuge lid and ensure that it is locked.
- Set timer for 10 minutes and press start.
- After the tube has been centrifuged, check the tubes for a **clearly defined separation of serum/plasma from the cells.**



1) Clearly defined separation –

- Place tube in a biohazard transport bag and requisition in outside pocket of the bag.
- Place the blood at the appropriate temperature and contact the courier department for a pick-up.

2) Specimens that do not have clearly defined separation –**DO NOT RESPIN THE ORIGINAL TUBE** - It can cause hemolysis or deterioration of the analyte(s) and cause altered test results.

**PERFORM THE FOLLOWING STEPS**  
**WHEN SEPARATION IS NOT CLEARLY DEFINED**

1. Using a fine permanent (i.e. Sharpie) marker, label the serum/plasma transfer tube with the patient's name and required second patient-specific identifier (such as date of birth, accession number, etc.).
2. Using a 4X4 gauze or tissue, slowly remove the stopper by easing the stopper up and away from you and taking care not to agitate the tube and disturb or mix the cells into the serum/plasma.
3. Using a transfer pipette, transfer the serum/plasma from the original tube into the labeled transfer (aliquot) tube. Do not get too close to the red cells at the bottom.
4. Centrifuge the transfer (aliquot) tube.
5. Using a fine permanent (i.e. Sharpie) marker, label another transfer tube with the patient's name, date and time drawn and an identification sticker from the red and white MML requisition. This tube will be used for the re-centrifuged serum or plasma.
6. Remove serum/plasma being careful not to disturb the red cell button and place it into the final labeled transfer (aliquot) tube.
7. Place a rubber band around the final transfer (aliquot) tube and the original tube.
8. Place them in a biohazard transport bag.
9. Place the completed requisition in the outside pocket of the bag.
10. Store the blood at the appropriate temperature as defined in the Metropolitan Medical Laboratory Reference Guide.
11. Contact the courier department for a pick-up or hold specimen for routine courier pickup.