

BEST PRACTICE BULLETIN

Important - Please review with clinic staff

Preventing Test Cancellations | Serum Separator Tube (SST) Specimens

Proper specimen collection and handling techniques are essential to producing quality samples for testing. Many test cancellations are a direct result of improper specimen collection and handling prior to arrival at the laboratory. These are referred to as pre-analytic influences.

The following specimen conditions will adversely affect results and may lead to test cancellations:

- Hemolysis (rupture of red blood cells)
- Unspun SST
- Incomplete separation
- Fibrin in serum (**Note:** Bicarbonate values may be affected, if fibrin must be removed from the tube at the laboratory)
- Diluted specimen (can occur when heparin or saline are introduced into the tube during collection)

To prepare a quality serum sample and prevent test cancellations:

- Collect blood specimen prior to administration of heparin and the start of dialysis.
- Before obtaining blood sample from a central venous catheter, withdraw and discard 5-10 mL of fluid from each catheter port (per facility protocol).
- When filling tube, allow vacuum to fill the tube. **Do not** force-fill with a syringe.
- Gently **invert tube 5-10 times** to mix clot activator with blood. **Do not** shake.
- Stand tube upright to **clot for 30 minutes, no longer than 60 minutes** before centrifuging.
 - Specimen tube should not remain unspun for more than 1 hour.
- Centrifuge to obtain complete separation.
- Refrigerate (36° - 46° F). Keep tubes away from freezer.
- Keep tubes away from direct heat and/or vibration. **Do not** rest tubes on dialysis machines.



Serum Separator/Tiger Top Tube (SST) with complete separation

Gently invert 5-10 times

Stand upright to clot for 30 minutes, no longer than 60 minutes

Centrifuge to obtain complete separation

Refrigerate (36° - 46° F)

***Refer to *Quality Specimen Collection & Handling* video and instructional guides for additional details.**

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