

Coagulation Specimen Collection Guidelines

To produce valid results for hemostasis/thrombosis test and factor assays, specimen integrity is crucial and must be maintained. All specimens sent for testing must be collected and transported in the following manner:

- Obtain venous blood by clean venipuncture. Avoid slow flowing draws and/or traumatic venipunctures, as either of these may result in an activated or clotted specimen. Do not use needles smaller than 23gauge. Do not leave the tourniquet on for an extended length of time before drawing the sample.
- Collect coagulation specimens in light blue-top vacuum tubes (3.2% buffered sodium citrate). Draw discard tube (non-additive or light blue-top tube) if other than PT or APTT are being drawn or they are being drawn with other tests. Dispose of the discard tube or use for another, non-coagulation assay.

NOTE: Non-additive tubes are collection tubes that do not contain anticoagulant, gel or other additives.

- Fill the light blue-top tubes to 90-100% and mix by gentle inversion. An exact ratio of nine parts blood to one part anticoagulant must be maintained. Inadequate filling of the sample tube will alter this ratio and may lead to inaccurate results. Patients who have hematocrit values above 55% should have the anticoagulant adjusted to maintain the 9:1 ratio. Call the laboratory for instructions if the hematocrit is >55%.

If able to deliver the specimen to the Laboratory within the stability time limits, transport the vacutainer at ambient room temperature (18-26°C). Refer to the Test Table for specific stability limits for individual Coagulation assays.

- If unable to deliver to the laboratory within the acceptable time frame:
 - Centrifuge the specimen at 2,500 x g for 10 minutes, or in a Stat Spin centrifuge for 3 minutes, or at a speed and time required to consistently produce platelet-poor plasma, platelet count less than 10,000 μ L. Hemolyzed specimens will be rejected.
 - Immediately remove only the top two-thirds of the platelet-poor plasma from the specimen using a plastic transfer pipet. Use of glass transfer pipets will result in activation and/or clotting of the plasma. Place 1 mL aliquots of plasma in properly labeled polypropylene transport tubes and clearly mark the vial contents as CITRATED PLASMA. Glass vials will be rejected.

- Immediately freeze the plasma in a non-frost-free freezer. Samples may be stored at -20°C for two weeks or preferably at -70°C. Specimens must remain frozen during storage and shipment.

NOTE: Freeze aliquot tubes in upright position.

- Requests for coagulation assays, especially Special Coagulation studies, should include a brief patient history and other pertinent clinical information (e.g., medications, blood products, etc.).

NOTE: Specimens containing heparin should not be used for coagulation studies. If possible, stop heparin therapy for up to two minutes before the draw to avoid contamination. Heparin interferes with most clotting assays.