

PLATELET POOR PLASMA

I. PURPOSE:

Coagulation specimens submitted to other laboratories for testing must be platelet-poor plasma. Platelet – poor plasma has a platelet count < 10,000/uL.

II. PRINCIPLE:

Platelet-poor plasma is produced by centrifugation of 3.2% buffered sodium citrate tubes of patient specimen. The plasma is removed from the cells and a platelet count performed to assure complete removal of platelets.

III. SPECIMEN:

- A. Obtain blood by venipuncture into a tube containing 3.2 % buffered sodium citrate to the proper level.
- B. If multiple specimens are collected, proper order of draw must be followed.
 1. If blood is drawn from an indwelling catheter, the line should be flushed with 5.0 ml saline and the first 5.0 ml of blood discarded or used for other laboratory tests.
 2. If using a butterfly to collect blood, the line must be primed to ensure proper tube fill.
- C. Gently invert tube 3-4 times to mix. Process immediately.
- D. Specimens that are clotted, collected in the wrong tube, have visible hemolysis or have less than 90% expected fill of the collection tubes will be rejected.

IV. EQUIPMENT:

- A. S/P® Brand Stat – 60 Centrifuge (located in Chemistry)
- B. Stat Spin Express 3 Centrifuge (located in Coagulation/Hematology)
- C. Sysmex® XN-2000 (Hematology department)
- D. 12 x 75mm polypropylene tubes with caps
- E. Buffered 3.2% Sodium Citrate light blue- top tubes
- F. Equipment listed above.
- G. Blue plastic send out tubes with corresponding lids.

VI. CALIBRATION

- A. Stat Centrifuges are validated annually for platelet-poor plasma. Refer to Policy Stat Spin Centrifuge Testing for Platelet-Poor Plasma

VII. PROCEDURE:

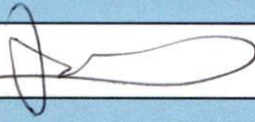
- A. Within 1 hour, centrifuge Sodium Citrate tube at 7200 rpm (3500 x g) for two minutes.
- B. Remove the tube from the centrifuge and remove cap.
- C. With a plastic pipette manually remove the plasma and transfer into a labeled 12 x 75mm tube. Note: Be careful not to get close to the plasma-cell interface (bottom ¼), as this is where the platelets are located.

- D. Repeat centrifugation for another two minutes at 7200 rpm (3500 x g) to assure complete platelet removal.
- E. Remove plasma with a plastic pipette into a new labeled send out tube. Leave a small portion of the plasma in the tube, being careful not to disturb the pellet at the bottom on the tube.
 - 1. Always check the minimum volume required for each send-out test to ensure adequate volume.
- F. Freeze immediately. Specimen must remain frozen until tested.
- G. Platelet poor plasma may be frozen at -20°C for up to 2 weeks or at -70°C for up to 6 months.
- H. Platelet Poor Plasma must be thawed in a 37°C water bath for 5-10 minutes or until completely thawed. Close monitoring during this time is necessary to avoid inadequate or excessive incubation at 37°C. Sample integrity may be compromised if samples are either not completely thawed or if maintained too long at 37°C. Repeated freeze/thaws should be minimized, to retain sample integrity.

V. REFERENCE:

- A. Express 3 Primary Tube Centrifuge Operator's Manual. Model Number M502-22. A division of Iris International, Inc.(2006)

<i>POLICY CREATION :</i>		<i>Date</i>
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<i>Medical Director:</i>	<i>Kathryn Kramer, MD</i>	<i>12/23/2008</i>

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11-27-18	Kathryn O. Kramer MD	
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REVISION HISTORY (began tracking 2011)			
Rev	Description of Change	Author	Effective Date

Reviewed by:

Lead	Date	Coordinator/ Manager	Date	Medical Director	Date
<i>Judi Hill</i>	<i>11-23-18</i>				