TRAINING UPDATE

Lab Location:	SGMC	**Date Implemented:**	6.10.2016
Department:	Blood Bank	**Due Date:**	6.30.2016

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:

Plasma Aliquot Preparation

Description of change(s):

1. Changed extra volume for tubing from 5mL to 10mL to accommodate the new administration tubing.

2. Removed references to making a platelet aliquot in a syringe, since we only use bags.

Electronic Document Control System

Document No.: SGAH.BB146[3]
Title: Plasma Aliquot Preparation
Owner: LESLIE BARRETT
Status INWORKS
Effective Date: 02-Jul-2016

Next Review Date:

Non-Technical SOP

Title	**Plasma Aliquot Preparation**
Prepared by	Stephanie Codina Date: 12.21.2012
Owner	Stephanie Codina Date: 12.21.2012

Laboratory Approval		
Print Name and Title	**Signature**	**Date**
Refer to the electronic signature page for approval and approval dates.		
Local Issue Date:	Local Effective Date:	

Review:		
Print Name	**Signature**	**Date**

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1. PURPOSE

To describe the procedure for making small-volume plasma aliquots from plasma units. This procedure allows small amounts of a plasma unit to be transfused over the lifespan of the original blood product. This process limits donor exposures and decreases donor-related risks in the recipient while minimizing overall blood product wastage.

2. SCOPE

This procedure applies to small-volume plasma transfusions requested for a neonate or small child. SGMC staff members perform all plasma aliquot procedures for WAH and SGMC.

3. RESPONSIBILITY

All blood bank staff members must be trained and competent in plasma aliquot preparation to ensure the purity, potency, and safety of the aliquotted plasma product.

4. DEFINITIONS

N/A

5. PROCEDURE

Step	Action
1	The patient care area will order plasma aliquots using test "TPLANE." Review the order, special instructions, and volume.
2	Obtain the supplies necessary to aliquot the plasma. A. 150 mL transfer bag B. Sterile welding device C. Heat sealer D. Scale E. Hemostats

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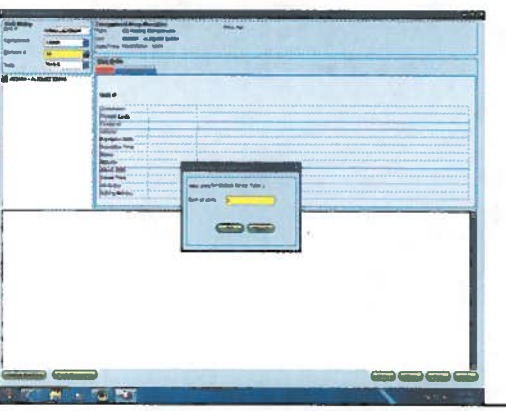
Step	Action
3	Perform daily QC of the scale if needed.
4	Select plasma that meets the recipient's transfusion specifications. A. Only group AB plasma is transfused to neonates. a. If group AB plasma is not available, obtain pathologist approval to transfuse group specific plasma to a neonate. b. We must have 2 independent blood types on file (ABO retype) prior to transfusing group-specific plasma. B. Pediatric patients may receive group AB or group specific plasma products. All plasma transfused to neonates will be transfused within 24 hours of the time thawed. **If a previously-thawed unit is used, ensure that the transfusion will take place before the 24-hour limit.**
5	If the plasma is frozen, thaw per procedure "Plasma for Transfusion." Thaw the plasma physically and BCP the thaw in the computer.
6	Document the following on the "Product Modification Log." A. Tech identification B. Date of modification C. Unit number D. E code of original and new units (or A code if applicable) E. Lot number of bag F. Wafer lot number
7	Gently mix the primary bag to ensure the plasma is completely thawed and no frozen bits remain.
8	Connect the transfer bag to the primary plasma per procedure, "Sterile Tubing Welder." **Use aseptic technique for this procedure!**
9	Tare the scale using an empty 150 mL transfer bag.
10	Allow the required amount of plasma to flow into the transfer bag via gravity. Include an extra 10 mL of plasma to compensate for the volume that will be lost in the tubing.
11	Clamp the line when an appropriate volume of plasma has been transferred. Seal the line between the hemostat clamps using a tube sealer at least twice. **Do not separate the aliquot from the parent unit at this time.** A. Always make sure the hemostat is clamped between the parent unit and the location in which the tubing will be sealed. B. This will protect the sterility of the unit should the heat seal fail.

Step	Action
12	Access Sunquest function "Blood Component Preparation." Note: Do not branch to blood component preparation from blood order processing.
13	At the "Value" prompt, type the aliquot function that corresponds to the plasma unit to be aliquotted then press the "Tab" key. The aliquot function is A + the E code of the platelet product. Refer to appendix A for additional information.
14	Press the tab key to default the current date and time as the aliquot time. Enter the date and time on which the aliquot was prepared if prepared at an earlier time (such as during computer downtime).
15	Click the "continue" button.
16	A second "Blood Component Prep" screen will appear. A. At the "Unit #" prompt, scan the unit number DIN of the parent plasma to be aliquotted. B. At the "Component" prompt, scan the product code of the parent plasma to be aliquotted. This will autofill both the product code and division fields.
17	A pop-up screen will appear asking the user to indicate the number of units that will be prepared (ie the number of aliquots being prepared at one time). A. Enter 1 in the field. B. Click the "OK" button. 

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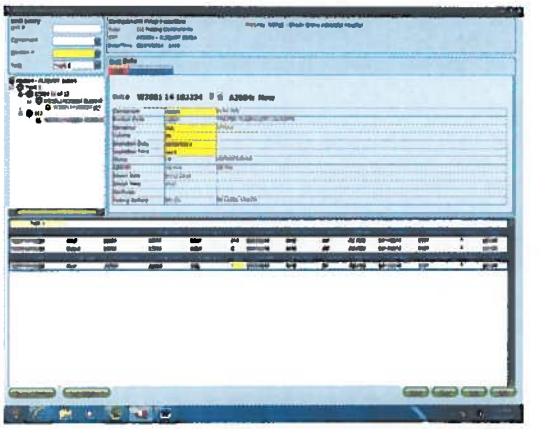
Step	Action
18	On the next screen, click on the yellow circle containing the "N" (for new product). Enter the volume of the plasma aliquot being prepared, then press the "Tab" key. 
19	Verify the new expiration dates/times. Document the new expiration date and time on the log. A. The expiration date of the parent unit will not change if a closed system is used. B. The expiration date of the parent unit will change to 24 hours from the time of aliquot if an open system is used (ie the sterile connection failed). If an open system is used, the output blood product codes in appendix A do not apply. See a supervisor for guidance. C. The expiration date of the aliquot will always be 24 hours from the time of **thaw** (not aliquot) regardless of whether an open or closed system is used.
20	Click the "save" button.
21	A "Preview Output / New Units" screen will appear. Review the information to ensure accuracy, then click on the "finish" button to generate new labels for the parent and aliquotted products. A. The first time an aliquot is prepared, the system will convert the parent unit to division "AO" and the aliquot to division "BO." B. All subsequent divisions will assign a division code to the aliquot using the division labeling convention of "Aa, Ab, Ac, Ad, ……Az."
22	Adhere the new labels to BOTH the parent unit and the aliquot. **Ensure you adhere the "AO" label to the parent unit.**
23	After labeling, disconnect the aliquot from the parent unit.

Step	Action
24	When the aliquot was made from an **apheresis** plasma product, calculate the amount of anticoagulant in the aliquoted and parent plasma products using the following formulas. Then, document the volume in the designated space on each product label. $\text{Ratio} = \frac{\text{Amount of Anticoagulant in Plasma}}{\text{Volume of Plasma}}$ Volume of anticoagulant in the aliquot = ratio x aliquot volume Volume of anticoagulant in the parent product = ratio x remaining volume For example, If the plasma label indicated an anticoagulant volume of 5 mL and a total volume of 200 mL. Therefore, the ratio would be: Ratio = 5 mL ÷ 200 mL = 0.025 Assume the new aliquot is 15 mL. The amount of anticoagulant in the aliquot is: 0.025 x 15 mL = 0.4 mL of anticoagulant in the aliquot.
25	Document the following on the "Product Modification Log." A. Division of new product B. Documentation of the weld inspection
26	Perform a label check in Sunquest per procedure. Label check must be performed on BOTH the parent unit and the aliquot.
27	Allocate the plasma aliquot per procedure.
28	Store both the parent unit and aliquot in the refrigerator (1-6°C) until issue. Aliquots should be transfused as soon as possible following preparation.

6. RELATED DOCUMENTS

SOP: Plasma for Transfusion
SOP: Sterile Tubing Welder
SOP: Scale Quality Control
SOP: Blood Label Check
Form: Product Modification Log (AG.F01)

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7. REFERENCES

1. Fung, MK, Grossman, BJ, Hillyer, CD, and Westhoff, CM. 2015. Technical Manual of the AABB, 18th ed., AABB Publishing, Bethesda, Maryland.
2. Standards for Blood Banks and Transfusion Services, 2016. AABB, 20th ed., AABB Publishing, Bethesda, Maryland.

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
		Supersedes SGAH.B408.01		
000	5.9.13	Section 5: Added ISBT-128 labeling information Section 9: Added appendix B	SCodina	NCacciabeve
001	5.27.14	Section 5: Removed references to codabar-labeled units. Updated LIS instructions to include the Sunquest v6.4 upgrade. Moved appendix for blood component preparation in the LIS to the procedure. Section 9: Re-numbered appendix Footer: version # leading zero's dropped due to new EDCS in use as of 10/7/13.	SCodina	NCacciabeve
2	6.1.16	Section 5: Changed dead volume for tubing from 5mL to 10mL due to hospital tubing change. Removed references to aliquot in syringe. Section 7: Updated references	SCodina	NCacciabeve

9. ADDENDA AND APPENDICES

A. Plasma Aliquot Blood Component Prep Functions

Appendix A
Plasma Aliquot Blood Component Prep Functions

Plasma Aliquot Products

Original Product	Component Prep Function	Final Product
E2121	AE2121	A2121
E2684	AE2684	A2684
E2702	AE2702	A2702
E2720	AE2720	A2720
E5548	AE5548	A5548
E5549	AE5549	A5549
E5550	AE5550	A5550