TRAINING UPDATE

Lab Location:	SGMC and WAH	**Date Implemented:**	5.15.2019
Department:	Blood Bank	**Due Date:**	5.30.2019

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:

Plasma Aliquot Preparation

Description of change(s):

- NICU requested that all aliquots be sent in the syringe. The syringe is pre-filtered and works with their pumps.
- Updated SOP to include instructions for preparing an aliquot in a syringe. First choice = use of syringe vs bag.

SGAH.BB146 Plasma Aliquot Preparation

Copy of version 5.0 (approved and current)

Last Approval or Periodic Review Completed	4/30/2019
Next Periodic Review Needed On or Before	4/30/2021
Effective Date	5/14/2019

Controlled Copy ID 185634

Location SG BB vol 3

Organization Adventist HealthCare

Comments for version 5.0
Refer to Revision History section of SOP

Approval and Periodic Review Signatures

Type	Description	Date	Version	Performed By	Notes
Approval	Lab Director	4/30/2019	5.0	Nicolas Cacciabeve	
Approval	BB approval	4/30/2019	5.0	Stephanie Codina	
Approval	QA approval	4/29/2019	5.0	Leslie Barrett	

Version History

Version	Status	Type	Date Added	Date Effective	Date Retired
5.0	Approved and Current	Initial version	4/29/2019	5/14/2019	Indefinite

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.

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Step	Action
2	Obtain the supplies necessary to aliquot the plasma. A. An aliquot container a. For aliquots <20 mL, use the set with the 30cc syringe. b. For aliquots <50 mL, use the set with the 60cc syringe. c. For aliquots >50 mL, use a transfer pack or prepare two aliquots in two syringes. Note two syringes are preferred by NICU staff. B. Sterile welding device C. Heat sealer D. Scale E. Hemostats
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. C. Consider avoiding apheresis plasma units to reduce the number of calculations that will be required. 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	Tighten all connections. The hub connection nearest the syringe has disconnected on rare occasions. **Use aseptic technique for this procedure!**
7	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 or syringe and expiration date of syringe F. Wafer lot number

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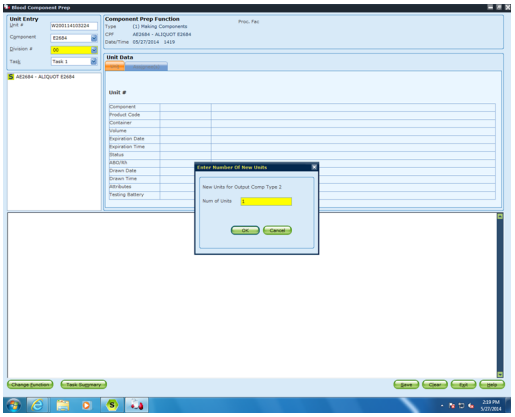
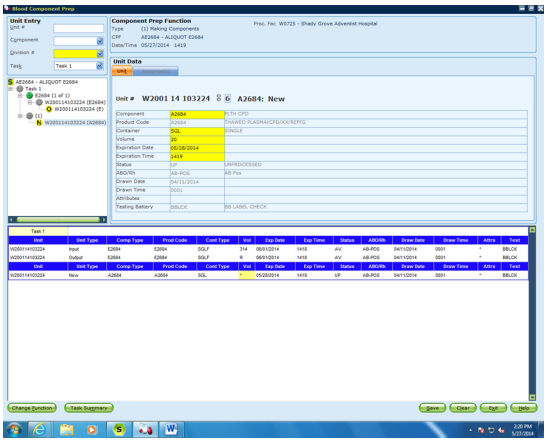
Step	Action
8	Gently mix the primary bag to ensure the plasma is completely thawed and no frozen bits remain.
9	Connect the filter-syringe set or transfer bag (whichever is used) to the primary plasma per procedure, "Sterile Tubing Welder."
10	If a transfer bag is used, tare the scale using an empty 150 mL transfer bag.
11	Slowly draw the required amount of plasma into the syringe or 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. DO NOT push free air from the syringe back into the parent unit.
12	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.
13	Access Sunquest function "Blood Component Preparation." Note: Do not branch to blood component preparation from blood order processing.
14	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 plasma product. Refer to appendix A for additional information.
15	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).
16	Click the "continue" button.
17	A second "Blood Component Prep" screen will appear. A. At the "Unit #" prompt, scan the unit number DIN of the parent plasma to be aliquoted. B. At the "Component" prompt, scan the product code of the parent plasma to be aliquoted. This will autofill both the product code and division fields.

Step	Action
18	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. 
19	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. 
20	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.
21	Click the "save" button.

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Step	Action
22	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."
23	Adhere the new labels to BOTH the parent unit and the aliquot. **Ensure you adhere the "AO" label to the parent unit.**
24	After labeling, disconnect the aliquot from the parent unit.
25	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.
26	Document the following on the "Product Modification Log." A. Division of new product B. Documentation of the weld inspection
27	Perform a label check in Sunquest per procedure. Label check must be performed on BOTH the parent unit and the aliquot.
28	Allocate the plasma aliquot per procedure.
29	Store both the parent unit and aliquot in the refrigerator (1-6^{o}C) until issue. Aliquots should be transfused as soon as possible following preparation.

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6. RELATED DOCUMENTS

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

7. REFERENCES

1. Fung, MK, Eder, AF, Spitalnik, SL, and Westhoff, CM. 2017. Technical Manual of the AABB, 19th ed., AABB Publishing, Bethesda, Maryland.
2. Standards for Blood Banks and Transfusion Services, 2018. AABB, 31st ed., AABB Publishing, Bethesda, Maryland.
3. Neonatal Syringe Set with 150 Micron Filter Manufacturer's Instructions. PN: 89-910-18G. Charter Medical, Winston-Salem, NC.

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 zeroes 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
3	4.17.17	Section 5: Changed "platelet" to "plasma" in step 13 of procedure. Updated references.	SCodina	NCacciabeve
4	4.19.19	Header: Updated parent facility Section 5: Added instructions to aliquot in syringe set per NICU request. 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