TRAINING UPDATE

Lab Location:	SGAH and WAH	**Date Implemented:**	5.6.2013
Department:	Blood Bank	**Due Date:**	5.20.2013

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:
Cryoprecipitate for Transfusion
Description of change(s):
1. Added instructions for thawing ISBT-128 labeled cryoprecipitate. 2. Please note **the Blood Component Prep function for thawing ISBT-128 labeled units is different.** 3. ISBT units are thawed by placing a T in front of the E product code. For example, a. A regular, pre-pooled 5 pack of frozen plasma is product code E3587. b. You will use function TE3587 in BCP to thaw the unit. c. The E code of the thawed unit will be different (E3591). d. You will print a label using the HemaTrax system for the thawed cryo product. 4. You will receive separate training on the HemaTrax system for printing labeled. However,

Non-Technical SOP

Title	**Cryoprecipitate for Transfusion**	
Prepared by	Stephanie Codina	Date: 11/30/2010
Owner	Stephanie Codina	Date: 11/30/2010

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

Cryoprecipitated Antihemophilic Factor (AHF) is prepared by thawing whole-blood-derived FFP between 1 and 6°C and recovering the precipitate. Cryoprecipitated AHF contains fibrinogen, Factor VIII, Factor XIII, vWF, and fibronectin. Cryoprecipitated AHF comes in single units and pre-pooled five packs (quints). Each single unit of cryoprecipitated AHF contains ≥80 IU Factor XIII units and ≥150 mg of fibrinogen in approximately 5-20 mL of plasma.

2. SCOPE

Cryoprecipitate may be ordered for transfusion in the following situations:

- Diagnosis of von Willibrand's disease with active bleeding or invasive procedure when pharmaceutical preparations are unavailable
- Diagnosis of hemophilia A with active bleeding or invasive procedure when pharmaceutical preparations are unavailable
- Factor VIII deficiency when virus-inactivated or recombinant Factor VIII preparations are not available
- Topical use for hemostasis when commercial preparations are unavailable
- Hypofibrinogenemia (fibrinogen <100 mg/dL)
- Dysfibrinogenemia with active bleeding or invasive procedure
- Factor XIII deficiency
- To enhance platelet function in patients with uremic platelet dysfunction and bleeding
- Massive transfusion

3. RESPONSIBILITY

All Blood Bank employees are required to demonstrate competency in the indications for and handling of cryoprecipitate for transfusion.

4. DEFINITIONS

None

5. PROCEDURE

A. Selection of Cryoprecipitate for Transfusion

Step	Action
1	Ensure the following requirements are met prior to allocating cryoprecipitate. A. The recipient must have had a T&S drawn and tested within 10 days of cryoprecipitate transfusion **and** be wearing a valid blood bank armband. B. The floor must fax a completed "Transfusion Order" form to the blood bank or have a valid telephone order on file in the blood bank. C. The floor must place a "TCRY" order in Cerner or have a valid telephone order on file in the blood bank.
2	Choose cryoprecipitate units from the freezer for the recipient. A. Cryoprecipitate is a "dry" product which means it contains minimal amount of plasma. B. Rh does not need to be taken into consideration when transfusing cryoprecipitate. Cryoprecipitate is non-cellular. C. Transfusion of out-of-group cryoprecipitate will generate a QA failure in the LIS.
3	Remove each unit of cryoprecipitate from its box and inspect for splits or breakage. Discard any unit that contains splits or breakage and select another unit for thawing. Refer to procedure, "Disposal of Blood and Blood Products."
4	Document the following information on the "Thawed Product Label Verification Log." A. Unit number B. Product Type (E code prior to thaw)

B. Allocating and Thawing Cryoprecipitate

Step	Action
1	Access the patient in Sunquest function Blood Order Processing.
2	Select the "TCRY" order from the order selection list.
3	Click on the "Allocation" tab.
4	Click on the "Blood Component Prep" button.

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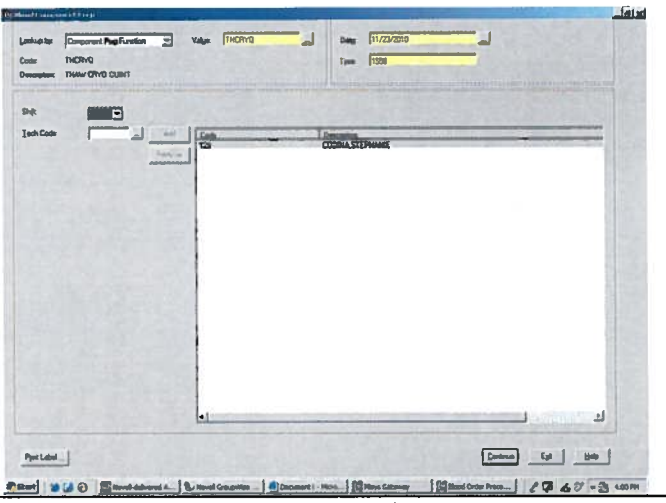
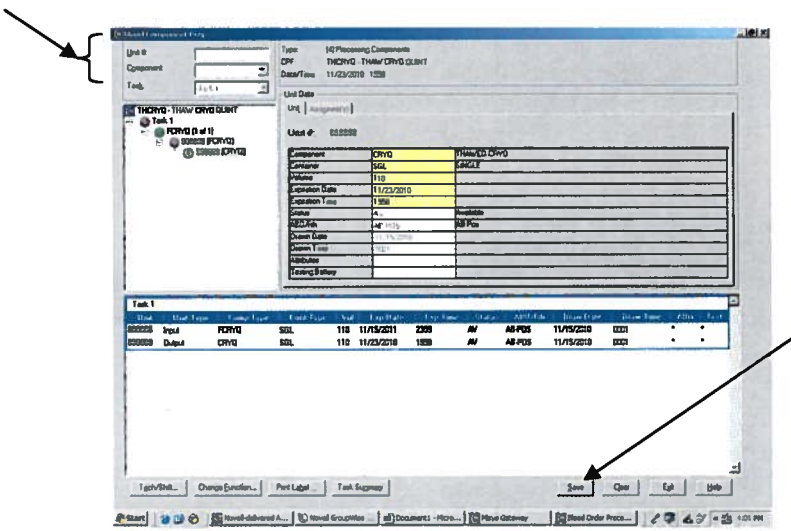
Step	Action
5	A "Blood Component Prep" screen will appear. A. At the "Value" prompt, type the component prep function needed to thaw the cryoprecipitated product. Refer to appendix A for guidance. B. Press the tab key twice to default the current date and time. Note: If the cryoprecipitate was thawed earlier, the time and date of thaw must be entered here. C. Click the "Continue" button. 
6	A second "Blood Component Prep" screen will appear. A. Scan the unit number of the cryoprecipitate unit to be thawed in the "Unit #" field. B. Choose the correct component from the dropdown menu and press the "tab" key. C. Repeat steps A and B for any additional units to be thawed. D. Note the new expiration date and time. Document the new expiration date and time on the "Thawed Product Label Verification Log." E. Click the "Save" button. 

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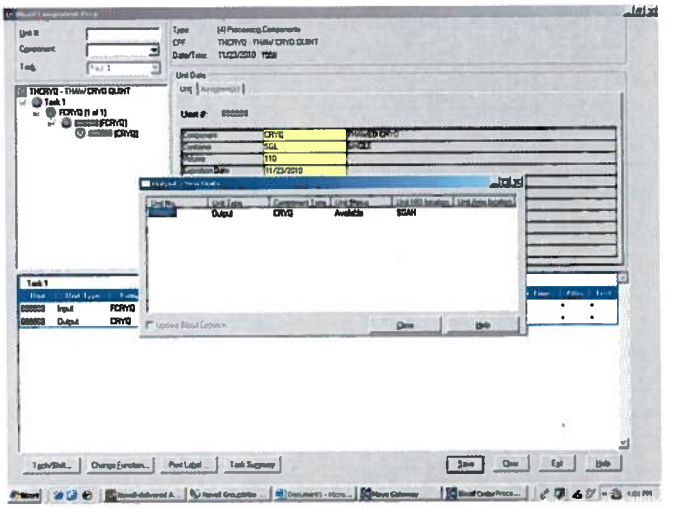
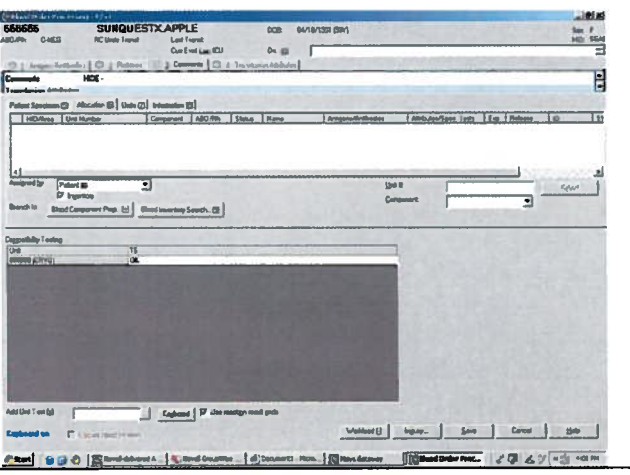
Step	Action
7	The message "File all units?" will appear. Click the "OK" button.
8	An output screen will appear. Verify that the output product type is correct and click on the "Close" button. 
9	The LIS will return to the allocation screen in Blood Order Processing. Click the "Save" button.
10	Thaw the cryoprecipitate unit(s) in a 30-37°C waterbath. A. The use of an automated plasma thawer is preferred. B. Place each unit in a plastic bag if the unit(s) will be submerged in water (open waterbath). This step may be omitted if the cryoprecipitate is thawed in a closed-system. C. Remove cryoprecipitate from the waterbath immediately when completely thawed.
11	Knead each bag of cryoprecipitate gently to resuspend the precipitate in any residual plasma.
12	Wipe any moisture from the outside of the bag with a clean, disposable towel.

Step	Action
13	Update the unit label. A. For ISBT-128 labeled units, print a new label and apply to the front of the unit. Refer to procedure, "ISBT-128 Label Production." B. For Codabar-labeled units, a. Change the expiration date and time of the unit. The new expiration date and time were documented on the "Thawed Product Label Verification Log." i. Draw a single line through the existing expiration date. ii. Write the new expiration date and time on the unit using moisture-proof, permanent ink. 1. Pooled cryoprecipitate is given a 4-hour expiration date/time (regardless of whether it was pooled via open or closed system). 2. Single cryoprecipitate is given a 6-hour expiration date/time. iii. Initial the change.
14	Give the edited blood product and "Thawed Product Label Verification Log" to a second tech to review the edited labeling. A. The second tech must verify a. Expiration date and time modified on the thawed unit are correct and match the expiration date of the thawed product in the LIS. b. The "Thawed by" or "Further processed by location" is correct (SGAH or WAH). B. You may review the expiration date edits yourself only if you are the only tech working the shift.
15	Return to the allocation screen in the LIS. In the "Compatibility Testing" column, indicate whether the cryoprecipitate is OK for transfusion. A. Type "[" to indicate "OK for transfusion." B. Type "]" to indicate "not OK for transfusion." C. DO NOT issue any unit that is not acceptable for transfusion. Discard per procedure, "Disposal of Blood and Blood Products." 

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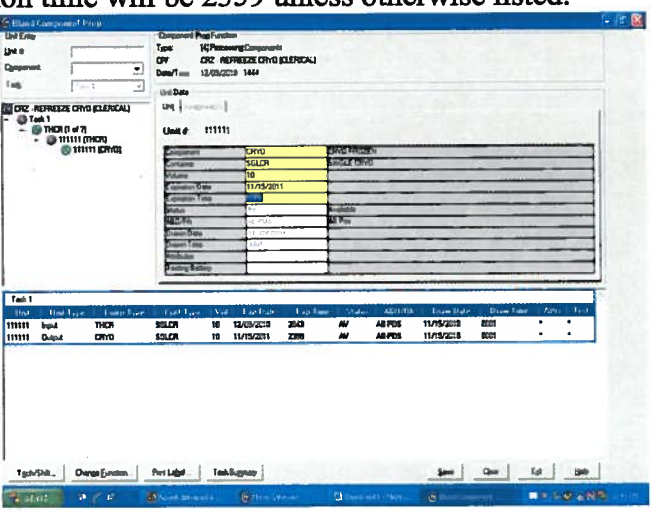
Step	Action
16	Attach the "Blood Bank Product Tag and Administration Record" to the cryoprecipitate bag and store at room temperature (20-24°C) until issue.
17	Notify the patient care area that the cryoprecipitate is available for pickup. Issue per procedure, "Issuing Blood Components."
18	Thawed cryoprecipitate should NEVER be refrozen. However, if the cryoprecipitate unit was thawed in the LIS but not physically thawed, the unit can be clerically refrozen in the LIS. If a supervisor is present, the status of the cryoprecipitate should be changed using function "Blood Status Correction." If a supervisor is not present: A. Access Sunquest function "Blood Component Preparation." B. At the "Value" prompt, type one of the following then press the "Tab" button. a. "CRZ" for a single cryoprecipitate unit. b. "CRQZ" for a quint cryoprecipitate unit. C. Press the "Tab" key twice to default the current date and time or type in the correct date and time. D. Click the "Continue" button. E. At the "Unit #" prompt, scan or type the unit number. F. Select the correct component type from the drop-down menu. G. Type in the expiration date and time of the original product. The expiration time will be 2359 unless otherwise listed.  H. Click on the "Save" button. I. At the "File all units?" prompt, click the "OK" button. J. An "Output/New Units" screen will pop-up. Click the "Close" button. K. Return the units to the freezer.

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6. RELATED DOCUMENTS

SOP: Disposal of Blood and Blood Products
SOP: Issuing Blood Components
SOP: ISBT-128 Label Production
Form: Thawed Product Label Verification Log

7. REFERENCES

1. Roback, J.D., Combs, M.R., Grossman, B.J., Hillyer, C.D. 2012. Technical Manual of the AABB, 17th ed. AABB Publishing, Bethesda, Maryland.
2. Standards for Blood Banks and Transfusion Services, 28th ed. AABB Publishing, Bethesda, Maryland.

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
		Supersedes WAB.015.000, SHB.015.000		
000	4.16.13	Section 5: Removed instructions for ordering and receiving cryo; this is performed via Cerner. Added instructions for ISBT-128 labeled units.	SCodina	NCacciabeve

9. ADDENDA AND APPENDICES

Appendix A: Cryoprecipitate Thawing Functions

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Appendix A
Cryoprecipitate Thawing Functions

Original Product	Component Prep Function	Final (Thawed) Product
E3587	TE3687	E3591
E3588	TE3588	E5602
E5165	TE5165	E3581