

### TRAINING UPDATE

**Lab Location:** SGMC and WAH      **Date Implemented:** 1.3.2019  
**Department:** Field Operations      **Due Date:** 1.20.2019

### DESCRIPTION OF PROCEDURE REVISION

<b>Name of procedure:</b>
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Cryoprecipitate for Transfusion
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<b>Description of change(s):</b>
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<p>In emergency situations, cryo may be issued prior to the antibody screen being complete. However, we must have a current T&amp;S in the blood bank and ABO typing (including ABO retype as applicable) must be complete.</p>
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Electronic Document Control System



**Document No.:** SGAH.BB72[5]

**Title:** Cryoprecipitate for Transfusion

**Owner:** LESLIE BARRETT

**Status:** INWORKS

**Doc Effective Date:** 01-Feb-2019

**Next Review Date:**

Non-Technical SOP

<b>Title</b>	<b>Cryoprecipitate for Transfusion</b>	
<b>Prepared by</b>	Stephanie Codina	Date: 11/30/2010
<b>Owner</b>	Stephanie Codina	Date: 11/30/2010

<b>Laboratory Approval</b>		
<b>Print Name and Title</b>	<b>Signature</b>	<b>Date</b>
<i>Refer to the electronic signature page for approval and approval dates.</i>		
<b>Local Issue Date:</b>		<b>Local Effective Date:</b>

<b>Review:</b>		
<b>Print Name</b>	<b>Signature</b>	<b>Date</b>

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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  $\geq 80$  IU Factor XIII units and  $\geq 150$  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 must understand and adhere to this procedure when handling cryoprecipitate for transfusion.

**4. DEFINITIONS**

None

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## 5. PROCEDURE

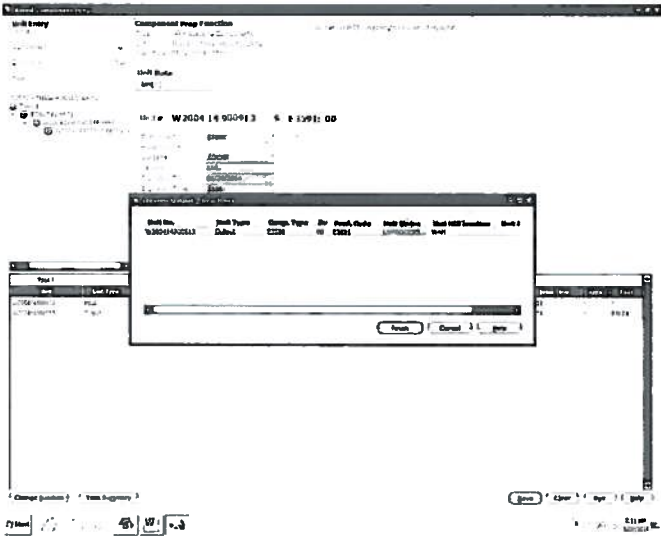
### Selection of Cryoprecipitate for Transfusion

Step	Action
1	The patient care area will order cryoprecipitate in the system using the "TCRY" order. Blood bank staff members should receive the order per procedure.
2	<p>Prior to thawing cryoprecipitate, ensure the recipient has had a T&amp;S drawn and tested. If the T&amp;S is greater than 3 days old, ensure the recipient is wearing a valid blood bank armband. The T&amp;S is good for the following intervals:</p> <ul style="list-style-type: none"> <li>A. Inpatients: Entire hospitalization</li> <li>B. Outpatients: 1 year</li> </ul> <p>Note: In emergency situations, cryoprecipitate may be issued prior to completion of the antibody screen as long as blood bank has received a current T&amp;S specimen and the ABO/Rh testing has been resulted.</p>
3	<p>Choose cryoprecipitate units from the freezer for the recipient.</p> <ul style="list-style-type: none"> <li>A. Cryoprecipitate is a "dry" product which means it contains minimal amount of plasma.</li> <li>B. ABO does not need to be considered when transfusing cryoprecipitate.</li> <li>C. Rh does not need to be considered when transfusing cryoprecipitate.</li> </ul> <p>Note: SGMC and WAH normally stocks pre-pooled, frozen cryoprecipitate units that contain 5 individual units. We will only accept individual units for emergency situations when ARC is unable to supply pooled cryoprecipitate. These units are thawed and issued in the same manner as the pre-pooled cryoprecipitate (as individual units). We do not have procedures for pooling blood products.</p>
4	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 per procedure.
5	<p>Access Sunquest function, "Blood Component Preparation."</p> <p>Note: Do NOT branch to Blood Component Preparation from function Blood Order Processing. The label check will generate QA failures and Sunquest will falsely generate a message to Cerner indicating the plasma is ready for pickup.</p>
6	At the "Value" prompt, type the thaw function that corresponds to the cryoprecipitate unit that you are thawing then press the "tab" key. The thaw function is T + the E code of the frozen cryoprecipitate unit. Refer to appendix A for additional information.

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Step	Action
7	Press the tab key to default the current date and time as the thaw time. Enter the date and time on which the cryoprecipitate was thawed if thawed at an earlier time (such as during a computer downtime).
8	Click the “continue” button.
9	A second “Blood Component Prep” screen will appear. A. At the “Unit #” prompt, scan the unit number DIN of the cryoprecipitate unit to be thawed. B. At the ‘Component” prompt, scan the product code from the cryoprecipitate unit. This will autofill both the product code and division fields.
10	Repeat steps 9A and 9B for each cryoprecipitate unit <b>containing the same E code</b> to be thawed at the same time.
11	When all cryoprecipitate units have been entered, click the “Save” button.
12	A “Preview Output / New Units” screen will appear. Review the information to ensure accuracy, then click on the “finish” button to generate new product/expiration date labels for the thawed products.  
13	Thaw the cryoprecipitate unit(s) in a 30-37°C waterbath. <b>Do not attempt to speed thawing by raising the temperature of the plasma thawer!</b> 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 the cryoprecipitate from the waterbath immediately when completely thawed.

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Step	Action
14	Gently knead the bag to re-suspend any precipitate.
15	<p>Wipe any moisture from the outside of the bag with a clean, disposable towel. Adhere the updated plasma/expiration date label(s) to the thawed plasma unit(s).</p> <ul style="list-style-type: none"> <li>A. Ensure you are placing the correct label on the correct unit.</li> <li>B. Adhere the new labels directly over the lower half of the product label.</li> <li>C. Handwrite the volume of cryoprecipitate on the labels if indicated.</li> </ul>
16	<p>Perform a blood label check of each thawed unit in Sunquest per procedure. Note: The units will remain in an unavailable status until the label check is completed.</p>
17	<p>Allocate the cryoprecipitate to the designated recipient using Sunquest function, "Blood Order Processing."</p> <ul style="list-style-type: none"> <li>A. Access Blood Order Processing.</li> <li>B. Open the TCRY order from the order list.</li> <li>C. Review the order, indications, and provider instructions.</li> <li>D. Enter the recipient's blood bank armband number in the "Armband #" field.</li> <li>E. Click the "Allocation" tab.</li> <li>F. At the "Unit #" prompt, scan the unit number from the thawed plasma unit.</li> <li>G. At the "Component" prompt, scan the E code from the product. This will autofill the component and division fields.</li> <li>H. Click the "Select" button to allocate the unit to the recipient.</li> </ul> <p>Repeat steps 17D-F for all additional cryoprecipitate units to be allocated.</p>
18	<p>Each cryoprecipitate unit allocated to the patient will display in the "Compatibility Testing" area of the screen. In the "TS" column, enter "J" for each unit to indicate the unit is acceptable for transfusion to the patient. <b>Do not allocate units that do not meet specifications.</b></p>
19	Click the "Save" button.
20	<p>The message, "Continue to Blood Product Issue?" will appear.</p> <ul style="list-style-type: none"> <li>A. Click "Yes" and continue per issuing procedure if the cryoprecipitate will be immediately issued.</li> <li>B. Click "No" if the cryoprecipitate will be stored in the blood bank prior to issue.</li> </ul>
21	<p>For units that were not issued, attach the printed patient information and store at room temperature (20-24°C) until issue or expiration. Notify the patient care area that the cryoprecipitate is ready for pickup.</p>

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**6. RELATED DOCUMENTS**

- SOP: Order Entry, Receiving Orders in the GUI System  
 SOP: Disposal of Blood and Blood Products  
 SOP: Blood Label Check  
 SOP: Issuing Blood Components

**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, 31<sup>st</sup> ed. (2018) 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
001	5.20.2014	Section 5: Removed references to codabar-labeled units. Updated instructions to reflect the Sunquest v6.4 upgrade. Added blood label check instructions. Footer: version # leading zero's dropped due to new EDCS in use as of 10/7/13.	SCodina	NCacciabeve
2	2.24.2015	Section 5: Updated T&S requirements for cryo transfusion.	SCodina	NCacciabeve
3	2.6.2017	Header: Added WAH	LBarrett	NCacciabeve
4	12.28.18	Section 5: Added allowance to issue cryo prior to completion of AbS in emergencies.	SCodina	NCacciabeve

**9. ADDENDA AND APPENDICES**

Appendix A: Cryoprecipitate Thawing Functions



**Appendix A**  
**Cryoprecipitate Thawing Functions**

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

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