**TRAINING UPDATE**

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|---|---|---|---|
| **Lab Location:** | SGAH and WAH | **Date Implemented:** | 02.27.2015 |
| **Department:** | Blood Bank | **Due Date:** | 03.15.2015 |

**DESCRIPTION OF PROCEDURE REVISION**

## Name of procedure:

Cryoprecipitate for Transfusion

## Description of change(s):

Changed requirement for T&S sample

**FROM** "within the previous 10 days"

**TO** "Entire hospitalization for inpatients and 1 year for outpatients"

**Electronic Document Control System**

Quest Diagnostics

**Document No.:** WAH.BB70[3]
**Title:** CRYOPRECIPITATE FOR TRANSFUSION
**Owner:** LESLIE.X.BARRETT LESLIE BARRETT
**Status** INWORKS
**Effective Date:** 27-Mar-2015 **Next Review Date:**

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.* | | |
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| | | |

Local Issue Date: Local Effective Date:

**Review:**

| Print Name | Signature | Date |
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Form revised 3.3.100

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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 must understand and adhere to this procedure when handling cryoprecipitate for transfusion.

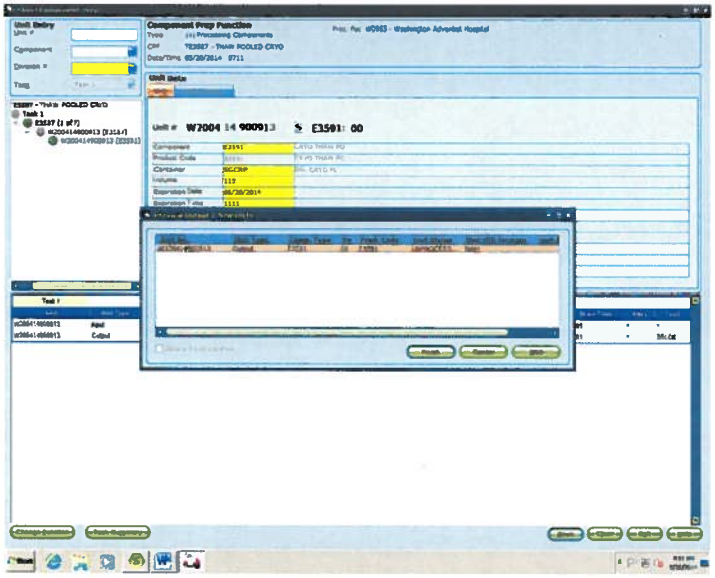
## 4. DEFINITIONS

None

## 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 | Prior to thawing cryoprecipitate, ensure the recipient has had a T&S drawn and tested. If the T&S is greater than 3 days old, ensure the recipient is wearing a valid blood bank armband. The T&S is good for the following intervals:<br>A. Inpatients: Entire hospitalization<br>B. Outpatients: 1 year |
| 3 | Choose cryoprecipitate units from the freezer for the recipient.<br>A. Cryoprecipitate is a "dry" product which means it contains minimal amount of plasma.<br>B. ABO does not need to be considered when transfusing cryoprecipitate.<br>C. Rh does not need to be considered when transfusing cryoprecipitate.<br><br>Note: SGAH 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. |
| 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 | Access Sunquest function, "Blood Component Preparation."<br><br>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. |
| 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. |
| 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. |

| Step | Action |
|---|---|
| 9 | A second "Blood Component Prep" screen will appear.<br>A. At the "Unit #" prompt, scan the unit number DIN of the cryoprecipitate unit to be thawed.<br>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 **containing the same E code** 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.<br>  |
| 13 | Thaw the cryoprecipitate unit(s) in a 30-37°C waterbath. **Do not attempt to speed thawing by raising the temperature of the plasma thawer!**<br>A. The use of an automated plasma thawer is preferred.<br>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.<br>C. Remove the cryoprecipitate from the waterbath immediately when completely thawed. |

| Step | Action |
|---|---|
| 14 | Gently knead the bag to re-suspend any precipitate. |
| 15 | 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).<br>A. Ensure you are placing the correct label on the correct unit.<br>B. Adhere the new labels directly over the lower half of the product label.<br>C. Handwrite the volume of cryoprecipitate on the labels if indicated. |
| 16 | Perform a blood label check of each thawed unit in Sunquest per procedure.<br>Note: The units will remain in an unavailable status until the label check is completed. |
| 17 | Allocate the cryoprecipitate to the designated recipient using Sunquest function, "Blood Order Processing."<br>A. Access Blood Order Processing.<br>B. Open the TCRY order from the order list.<br>C. Review the order, indications, and provider instructions.<br>D. Enter the recipient's blood bank armband number in the "Armband #" field.<br>E. Click the "Allocation" tab.<br>F. At the "Unit #" prompt, scan the unit number from the thawed plasma unit.<br>G. At the "Component" prompt, scan the E code from the product. This will autofill the component and division fields.<br>H. Click the "Select" button to allocate the unit to the recipient.<br>Repeat steps 17D-F for all additional cryoprecipitate units to be allocated. |
| 18 | Each cryoprecipitate unit allocated to the patient will display in the "Compatibility Testing" area of the screen. In the "TS" column, enter "]" for each unit to indicate the unit is acceptable for transfusion to the patient. **Do not allocate units that do not meet specifications.** |
| 19 | Click the "Save" button. |
| 20 | The message, "Continue to Blood Product Issue?" will appear.<br>A. Click "Yes" and continue per issuing procedure if the cryoprecipitate will be immediately issued.<br>B. Click "No" if the cryoprecipitate will be stored in the blood bank prior to issue. |
| 21 | 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. |

Form revised 3.31.00

## 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. Roback, J.D., Grossman, B.J., Harris, T., and Hillyer, C.D. 2012. Technical Manual of the AABB, 17th ed. AABB Publishing, Bethesda, Maryland.
2. Standards for Blood Banks and Transfusion Services, 29th ed. (2014) 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.<br>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 |

## 9. ADDENDA AND APPENDICES

Appendix A: Cryoprecipitate Thawing Functions

## Appendix A
## Cryoprecipitate Thawing Functions

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