**TRAINING UPDATE**

| | | | |
|---|---|---|---|
| **Lab Location:** | SGMC & WOMC | **Date Implemented:** | 10/30/24 |
| **Department:** | Blood Bank | **Due Date:** | 11/6/24 |

**DESCRIPTION OF PROCEDURE REVISION**

## Name of procedure:

Massive Transfusion Protocol

## Description of change(s):

Effective November 1, 2024, we will change the ratio of products issued in a massive transfusion protocol activation.

- Initial cooler
  - 4 rbcs
  - Any available thawed plasma
- Subsequent coolers
  - 6 rbcs
  - 3 plasma
- Even numbered coolers (2, 4, 6, etc) will still contain 1 apheresis platelet and a blue tube for fibrinogen testing

Non-Technical SOP

| | | |
|---|---|---|
| **Title** | **Massive Transfusion Protocol** | |
| **Prepared by** | Stephanie Codina | Date: 12/8/2010 |
| **Owner** | Stephanie Codina | Date: 12/8/2010 |

| **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: | |

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## 1. PURPOSE

The Massive Transfusion Protocol (MTP) defines the processes that will coordinate efficient ordering, procurement, and transfusion of blood products in a timely manner for massively bleeding patients.

## 2. SCOPE

This procedure applies to any patient for whom a massive transfusion protocol is called.

## 3. RESPONSIBILITY

All blood bank staff members will prepare and issue blood products as specified in this procedure when a massive transfusion is requested.

## 4. DEFINITIONS

A. Massive Transfusion is defined as any of the following:
   a. Total blood volume is replaced within 24 hours
   b. 50% of total blood volume is replaced within 3 hours
   c. Active bleeding with blood loss of 150 ml/min or greater

B. Physician-in-charge: The physician who is responsible for the care of a patient, usually the attending physician, surgeon, or anesthesiologist caring for the patient or the physician or licensed practitioner (LIP) who assumes care of the patient in an emergency situation.

C. Massive Transfusion Protocol Alert: A declaration made by the physician-in-charge that a rapidly bleeding patient who requires massive transfusion exists.

D. Transfusionist: The nurse or physician who prepares and hangs blood for infusion.

## 5. PROCEDURE

| Step | Action |
|---|---|
| 1 | The physician in charge will initiate the massive transfusion protocol alert and designate a reliable person to act as the blood bank liaison. The blood bank liaison will notify the blood bank via telephone that a massive transfusion protocol alert has been declared. The liaison will serve as the contact person for blood bank staff throughout the emergency. |
| 2 | Upon receipt of the verbal notification, obtain and document the following information on the Telephone Order Log.<br>A. Date and time of request<br>B. Patient's full name or alias, if available<br>C. Patient's medical record number, if available<br>D. Ordering physician's name<br>E. Name and vocera/phone number of the blood bank liaison<br>F. Note "MTP" on the log.<br>Retroactive documentation is acceptable due to the urgency of the request. |
| 3 | Review the patient's blood bank history in the LIS to determine whether the patient needs a current T&S and/or ABO confirmation specimen.<br>A. Instruct the caller to immediately collect and send a T&S or ABO confirmation specimen, if applicable.<br>B. Notify the caller that emergency release blood products will be issued immediately, when the T&S specimen has not been received in the blood bank.<br>C. Notify the caller group O red cells will be issued if the ABO confirmation has not been received.<br>D. Remind the caller that they must send a runner to pick up blood products in the cooler and blood bank will require a "Request for Transfusion" or "Emergency Release" form each time blood products are issued. |

| Step | Action |
|---|---|
| 4 | Immediately prepare and issue the following blood products. Refer to the emergency release procedure as indicated.<br>A. All red blood cells currently crossmatched to the patient *or* a minimum of four red cells if none are allocated<br>B. Any plasma units that have been thawed and can be reallocated to the bleeding patient<br>The blood products must be prepared in a transport cooler, and the patient care area will send a team member to pick up the blood products. |
| 5 | Continue to prepare coolers that contain the following products until the bleeding episode is over.<br><br>Every additional cooler will contain:<br>A. 6 red blood cells<br>B. 3 thawed plasma<br>The following will also be issued with every other cooler (coolers 2, 4, 6, 8, etc.):<br>A. 1 apheresis platelet (do not issue in cooler)<br>B. 1 blue (sodium citrate) tube for collection of fibrinogen; Blood bank will place the fibrinogen order in Sunquest |
| 6 | Blood bank staff will communicate with the staff member working in coagulation.<br>A. Blood bank will contact the blood bank liaison if the fibrinogen has not been received within 30 minutes.<br>B. Blood bank will automatically prepare and issue 10 units of cryoprecipitate if the fibrinogen level is less than 150 mg/dL. |
| 7 | The physician in charge will order additional blood products as needed. |
| 8 | Monitor the blood product inventory. Order additional blood products into inventory as needed. |
| 9 | All emergency release forms will be signed by the physician and returned to the blood bank within 48 hours of the massive transfusion activation. |
| 10 | A representative from the patient care area will return the blood product transport coolers and any unused blood products to the blood bank as soon as the patient is hemodynamically stable or the massive transfusion protocol is terminated. |

## 6. RELATED DOCUMENTS

SOP: Blood Bank Telephone Product Orders
SOP: Issuing Blood in a 930 Medical Transport Cooler
SOP: Issuing Blood Products in a Max+ Blood Shipper
SOP: Emergency Release of Blood Products
SOP: Issuing Blood Components
AHC Policy: Massive Transfusion Policy (MTP)

## 7. REFERENCES

N/A

## 8. REVISION HISTORY

| Version | Date | Reason for Revision | Revised By | Approved By |
|---|---|---|---|---|
| | | Supersedes WAH/SGAH B309.000 | | |
| 000 | 10.23.15 | Section 5: Updated wording of step 3 for clarity<br>Footer: Version # leading zero's dropped due to new EDCS in use as of 10/7/13 | SCodina | NCacciabeve |
| 1 | 10.17.17 | Header: Added WAH | LBarrett | NCacciabeve |
| 2 | 7.10.20 | Header: Changed WAH to WOMC<br>Section 5: Added blood bank liaison, fibrinogen testing/cryoprecipitate issues, and updated cooler contents per changes to AHC policy.<br>Section 6: Updated titles | SCodina | NCacciabeve |
| 3 | 10.24.24 | Updated number of plasma issued with each cooler from 6 to 3 per Transfusion Committee recommendation | SCodina | NCacciabeve |

## 9. ADDENDA AND APPENDICES

N/A