

TRAINING UPDATE

Lab Location: SGMC and WAH **Date Implemented:** 3.10.2017
Department: Phlebotomy **Due Date:** 3.24.2017

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:

Procurement of Blood Products and Desired Inventory Levels

Description of change(s):

1. Added instructions for ordering from Inova
2. Updated standing orders

For clarity....

All stat/asap/ad hoc orders go to IBDS

All reference work goes to ARC

The following standing orders have been established

- a. SGMC =
 - i. Monday = 2 platelets + 1 neonatal platelet from ARC
 - ii. Tuesday = 1 platelet from IBDS
 - iii. Thursday = 1 platelet + 1 neonatal platelet from IBDS

 - iv. Tuesday = 1 neonatal red cell from IBDS
 - v. Thursday = 1 neonatal red cell from ARC

- b. WAH =
 - i. Monday = 2 platelets from ARC
 - ii. Thursday = 2 platelets from IBDS

Non-Technical SOP

Title	Procurement of Blood Products and Desired Inventory Levels	
Prepared by	Stephanie Codina	Date: 12/16/2010
Owner	Stephanie Codina	Date: 12/16/2010

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

Review:		
Print Name	Signature	Date

Form revised 3/31/00

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1. PURPOSE

Adequate reserves of blood products must be maintained to support transfusion therapy, surgical needs, and emergency situations. Blood products are obtained from blood donor centers and/or other licensed facilities in the US or registered facilities in Maryland.

2. SCOPE

This procedure applies to blood products that are normally maintained in inventory. This includes red blood cells, plasma, apheresis platelets, and pooled cryoprecipitate.

3. RESPONSIBILITY

All blood bank staff members must know how to obtain additional blood products and what the target inventory of blood products should be. This will help to ensure adequate inventory levels with minimal wastage.

4. DEFINITIONS

Licensed Blood Supplier: A blood supplier that is licensed and registered with the Food and Drug Administration (FDA) to distribute blood products across state lines.

Registered Blood Supplier: A blood supplier that is registered with the FDA to distribute blood products within one state. Registered blood suppliers are not authorized to participate in interstate commerce.

5. PROCEDURE

A. Routine Blood Product Deliveries

Step	Action
1	Shady Grove Medical Center and Washington Adventist Hospital purchase products from two primary blood suppliers. A. The American Red Cross B. Inova Blood Donor Services

Step	Action				
2	Routine orders will be equally split between the two suppliers. A. Orders will be obtained from the American Red Cross on Monday and Friday B. Orders will be obtained from Inova on Tuesday and Thursday C. Reference orders will be prioritized to the American Red Cross				
3	Blood bank staff members will assess the blood product inventory levels daily and submit for delivery. <table border="1"> <thead> <tr> <th>For ARC Orders:</th> </tr> </thead> <tbody> <tr> <td> 1. ARC requires that routine orders be faxed the day before delivery by 10am. 2. Complete an ARC inventory worksheet to indicate the current inventories of each blood product. 3. Compare the current inventory levels to the desired inventory levels and determine how many of each type of blood product should be ordered. Document the order on the form. 4. Utilize the "Comments" section of the worksheet to document special request or blood products that should be cancelled. 5. Fax the worksheet to ARC. </td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>For Inova Orders:</th> </tr> </thead> <tbody> <tr> <td> 1. Inova prefers that stock orders are requested on the day of delivery. If products are requested on the previous day, please indicate the date of requested delivery on the form. 2. Complete an Inova Blood Donor Services Distribution Record to indicate the current inventories of each product. 3. Circle the shipping delivery request at the top of the form. "Regular" should be circled for stock orders. 4. Document the number of each type of product requested in the grey columns. Indicate the total number of products requested in the "# ordered" column. 5. Document patient specific needs in the designated area on the bottom of the form. 6. Complete the ordering tech initials, date, and time. 7. Fax the form to Inova. </td> </tr> </tbody> </table>	For ARC Orders:	1. ARC requires that routine orders be faxed the day before delivery by 10am. 2. Complete an ARC inventory worksheet to indicate the current inventories of each blood product. 3. Compare the current inventory levels to the desired inventory levels and determine how many of each type of blood product should be ordered. Document the order on the form. 4. Utilize the "Comments" section of the worksheet to document special request or blood products that should be cancelled. 5. Fax the worksheet to ARC.	For Inova Orders:	1. Inova prefers that stock orders are requested on the day of delivery. If products are requested on the previous day, please indicate the date of requested delivery on the form. 2. Complete an Inova Blood Donor Services Distribution Record to indicate the current inventories of each product. 3. Circle the shipping delivery request at the top of the form. "Regular" should be circled for stock orders. 4. Document the number of each type of product requested in the grey columns. Indicate the total number of products requested in the "# ordered" column. 5. Document patient specific needs in the designated area on the bottom of the form. 6. Complete the ordering tech initials, date, and time. 7. Fax the form to Inova.
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4	The blood center will review the worksheet and ship the quantity of blood products needed to meet inventory requirements. Quantities shipped may be reduced when overall inventory is insufficient.				

B. Ad Hoc and Emergency Blood Product Orders

Step	Action				
1	<p>An Ad Hoc order is placed when the blood products must be received prior to the next scheduled delivery. These include orders to maintain minimum inventory levels of desired blood types or additional requests for platelets. Ad hoc orders are prioritized to Inova.</p>				
	<p>Complete the request form.</p> <table border="1"> <tr> <td>For Inova Orders:</td> </tr> <tr> <td>Complete the distribution record per instruction above. Indicate the shipping/delivery request as “stat” or “asap” if applicable. Inova will deliver all blood products to us; do not send a courier to pick up.</td> </tr> </table> <table border="1"> <tr> <td>For ARC Orders:</td> </tr> <tr> <td> <p>Complete the American Red Cross Ad Hoc Order Form.</p> <ul style="list-style-type: none"> A. List the blood products requested. B. Include blood types and special attributes as needed. Check the box if the order is critical or required stat. C. Document whether the order will be picked up (ie we will send a courier) or if we want ARC to deliver the products (only use this option when the products can be added to the routine stock delivery). D. Fax a copy of the form to ARC distribution using the number printed on the form. E. ARC distribution services will call to verify receipt of the order within 10 minutes. Call hospital services at 1-800-233-4640 ONLY when the order is urgent and cannot wait the 10 minutes required. </td> </tr> </table>	For Inova Orders:	Complete the distribution record per instruction above. Indicate the shipping/delivery request as “stat” or “asap” if applicable. Inova will deliver all blood products to us; do not send a courier to pick up.	For ARC Orders:	<p>Complete the American Red Cross Ad Hoc Order Form.</p> <ul style="list-style-type: none"> A. List the blood products requested. B. Include blood types and special attributes as needed. Check the box if the order is critical or required stat. C. Document whether the order will be picked up (ie we will send a courier) or if we want ARC to deliver the products (only use this option when the products can be added to the routine stock delivery). D. Fax a copy of the form to ARC distribution using the number printed on the form. E. ARC distribution services will call to verify receipt of the order within 10 minutes. Call hospital services at 1-800-233-4640 ONLY when the order is urgent and cannot wait the 10 minutes required.
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5	<p>If neither Inova or ARC are to fill a needed order, call any/all of the following. Telephone numbers are stored in the blood bank.</p> <ul style="list-style-type: none"> A. Washington Hospital Center B. National Blood Exchange (AABB) 				
6	<p>Notify the Blood Bank Supervisor, Administrator on-call, Blood Bank Medical Director, or pathologist on-call if adequate blood products still cannot be obtained.</p>				
7	<p>Notify the Blood Bank Medical Director or pathologist on-call immediately when severe regional blood shortages occur and replacement quantities are not available.</p> <ul style="list-style-type: none"> A. The pathologist will publicize the shortage via a Blood Shortage Alert or LabAlert for physicians. B. Consultation is necessary for each transfusion request in order to conserve blood products for critical patients. 				

Form revised 3/3/03

C. Short Dated Units and Inventory Rotation

Step	Action
1	If an overstock of blood products exists, the units can be posted on the “American Red Cross Hospital Inventory Visibility System (IVS)” or called to ARC. A. ARC normally does not accept blood product returns. B. ARC and the IVS system will help to facilitate transfer of the blood products to another hospital. C. Refer to procedure, “Shipping Blood and Components” for additional information.
2	ARC will issue credit for all expired AB red cells. Complete an ARC Credit Request form and indicate the product expired.
3	Notify Inova if we have Inova platelets that are within 24 hours of expiration. They will make all attempts to help transfer the platelets to another hospital for use.

D. Leukocyte-Reduced Blood Products

All cellular blood products will be leukocyte-reduced.

- Whole blood contains 2-3 x 10⁹ leukocytes/500 mL unit.
- Transfusion of these leukocytes may result in HLA alloimmunization, febrile transfusion reactions, CMV disease transmission, immune suppression, and graft-versus-host disease.
- In order to be labeled leukocytes-reduced, a blood product must contain fewer than 5 x 10⁶ leukocytes.

When leukocyte-reduced blood products are not available,

- Issue a bedside leukocyte-reduction filter with each cellular blood product.
- Notify the Blood Bank Supervisor, Blood Bank Medical Director, or an approved designee.

6. RELATED DOCUMENTS

- Form: ARC Managed Inventory Worksheet
- Form: Inova Blood Donor Services Distribution Record
- Form: ARC Ad Hoc Order Fax Form
- Form: ARC Credit Request Form
- SOP: Shipping Blood and Components

7. REFERENCES

1. Standards for Blood Banks and Transfusion Services, 2014. AABB, 29th ed. AABB Publishing, Bethesda, Maryland.
2. Fung, M.K, Grossman, B.J., Hillyer, C.D., and Westhoff, C.M. 2014. Technical Manual of the AABB, 18th ed. AABB Publishing, Bethesda, Maryland.

Form revised 3/31/05

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
		Supersedes SG/WAH B307.01, SG/WAH B308.01		
000	11.21.11	Section 5: Updated desired inventory levels; Removed Walter Reed Military Medical Center and National Institute of Health as acceptable suppliers for ad hoc orders	SCodina	NCacciabeve
001	12.10.13	Section 5: Moved desired inventory levels to appendix to create 1 procedure for both SGAH and WAH. Added new ARC process for ad hoc orders. Section 9: Added App A and B Footer: version # leading zero's dropped due to new EDCS in use as of 10/7/13.	SCodina	NCacciabeve
2	7.28.15	Section 5: Added ordering pooled cryo to the comments section of the form; this is no longer on standing order. Section 9: Updated Appendices A&B desired inventory levels and shipping schedules	SCodina	NCacciabeve
3		Header: Added WAH. Added in instructions for placing orders with Inova Blood Donor Services. Updated desired inventory levels.	SCodina	NCacciabeve

9. ADDENDA AND APPENDICES

Appendix A: Desired Inventory Levels for SGAH

Appendix B: Desired Inventory Levels for WAH

Appendix C: Blood Shortage Alert

**Appendix A
 Desired Inventory Levels for SGAH**

1. Routine deliveries can be made on any day of the week.
2. We have standing orders established for platelets and neonatal red cell (O-negative, CPDA-1 or AS-3, CMV-seronegative, <7 days old) deliveries.
3. Desired Inventory Levels
 - a. Blood bank staff members will use discretion when ordering and base decisions on anticipated blood product usage.
 - b. Actual inventory levels may occasionally drop below or exceed desired levels due to projected usage.
 - c. Inventory levels may be stocked a little higher on Fridays to avoid ad hoc blood product delivery on the weekends when staffing is minimal.
 - d. Inventory levels may be stocked a little higher during holiday seasons where there is a typical shortage of blood products.

The following represents the desired minimum inventory levels of blood products normally maintained in inventory.

Red Blood Cells							
O-Pos	O-Neg	A-Pos	A-Neg	B-Pos	B-Neg	AB-Pos	AB-Neg
50	15	40	8	12	2	1	0

Plasma			
Group O	Group A	Group B	Group AB
20	20	20	10

Platelets	Cryoprecipitate
Keep 2 platelets in inventory at all times. When possible, at least 1 should be group AB, CMV-negative.	Maintain a minimum inventory of 4 pooled cryoprecipitate products at all times. Blood type is not considered for cryoprecipitate.

Form revised 3/23/03

**Appendix B
 Desired Inventory Levels for WAH**

1. Routine Deliveries are made on weekdays.
2. We have standing orders established for platelet deliveries.
3. Desired Inventory Levels
 - a. Blood bank staff members will use discretion when ordering and base decisions on anticipated blood product usage.
 - b. Actual inventory levels may occasionally drop below or exceed desired levels due to projected usage.
 - c. Inventory levels may be stocked a little higher on Fridays to avoid ad hoc blood product delivery on the weekends when staffing is minimal.
 - d. Inventory levels may be stocked a little higher during holiday seasons where there is a typical shortage of blood products.

The following represents the desired minimum inventory levels of blood products normally maintained in inventory.

Red Blood Cells							
O-Pos	O-Neg	A-Pos	A-Neg	B-Pos	B-Neg	AB-Pos	AB-Neg
30	10	15	5	10	3	2	0

Plasma			
Group O	Group A	Group B	Group AB
20	20	15	6

Platelets	Cryoprecipitate
Keep 2 platelets in inventory at all times.	Maintain a minimum inventory of 6 pooled cryoprecipitate products at all times. Blood type is not considered for cryoprecipitate.

Form revised 3/31/05

Appendix C

BLOOD SHORTAGE ALERT

There is a regional shortage of O positive and
O negative red blood cells.

Please defer, if possible, all non-emergent transfusions to
group O patients.

It is anticipated that this situation will continue through
the holiday weekend. An update will be provided on
insert date.

Thank you for your cooperation during this critical situation.

**Shady Grove Medical Center and Washington Adventist
Hospital Blood Banks**

