

**TRAINING UPDATE**

**Lab Location:** All Sites                      **Date Implemented:** 9.8.23  
**Department:** Blood Bank                      **Due Date:** 9.22.23

**DESCRIPTION OF PROCEDURE REVISION**

<b>Name of procedure:</b>
Procurement of Blood Products and Desired Inventory Levels And Inova Blood Donor Services Distribution Records for each site
<b>Description of change(s):</b>
<ol style="list-style-type: none"><li>1. Historical data was reviewed to update our par inventory levels for blood products.</li><li>2. The Inova order forms for each site were updated to reflect the changed par levels.</li><li>3. The procedure and forms will go live as soon as the Medical Director's approve.</li></ol>

Non-Technical SOP

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

<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>		
Local Issue Date:		Local Effective Date:

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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	Adventist hospitals purchase products from two primary blood suppliers. A. The American Red Cross B. Inova Blood Donor Services Inova is our primary blood supplier and American Red Cross our secondary blood supplier. Standard shipments have been established from the American Red Cross and will arrive at designated intervals for SGMC and WOMC.
2	Blood bank staff members will assess the blood product inventory levels daily and submit to Inova for delivery. A. 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. B. Complete an Inova Blood Donor Services Distribution Record to indicate the current inventories of each product. Be sure to consider any blood products that have been ordered and not yet received. C. Circle the shipping delivery request at the top of the form. "Regular" should be circled for stock orders. D. Document the number of each type of product requested in the grey columns. Indicate the total number of products requested in the "# ordered" column. E. Document patient specific needs in the designated area on the bottom of the form. F. Complete the ordering tech initials, date, and time. G. Fax the form to Inova.
3	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	Ad Hoc orders are 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.				
2	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #cccccc;"><b>For Inova Orders:</b></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> <tr> <td style="background-color: #cccccc;"><b>For ARC Orders:</b></td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>A. Order the products electronically using the ARC Hospital Order Management Solutions System.</li> <li>B. 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).</li> <li>C. 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.</li> </ul> </td> </tr> </table>	<b>For Inova Orders:</b>	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.	<b>For ARC Orders:</b>	<ul style="list-style-type: none"> <li>A. Order the products electronically using the ARC Hospital Order Management Solutions System.</li> <li>B. 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).</li> <li>C. 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.</li> </ul>
<b>For Inova Orders:</b>					
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.					
<b>For ARC Orders:</b>					
<ul style="list-style-type: none"> <li>A. Order the products electronically using the ARC Hospital Order Management Solutions System.</li> <li>B. 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).</li> <li>C. 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.</li> </ul>					
3	IMMEDIATELY notify the Blood Bank Supervisor, Administrator on-call, Blood Bank Medical Director, or pathologist on-call if adequate blood products cannot be obtained and document the communication on the shift log. Involve the CMOs as needed to assist in making transfusion decisions and notifying members of the medical staff.				

**C. Short Dated Units and Inventory Rotation**

Step	Action
1	Work with the blood suppliers to transfer products to other sites when a surplus exists.
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. Blood Products**

Step	Action
1	<p>All cellular blood products will be leukocyte-reduced.            In order to be labeled leukocytes-reduced, a blood product must contain fewer than <math>5 \times 10^6</math> leukocytes.</p> <p>When leukocyte-reduced blood products are not available,</p> <ul style="list-style-type: none"> <li>A. Issue a bedside leukocyte-reduction filter with each cellular blood product.</li> <li>B. Notify the Blood Bank Supervisor, Blood Bank Medical Director, or an approved designee.</li> </ul>
2	All platelet products must be pathogen reduced.

**6. RELATED DOCUMENTS**

Form: Inova Blood Donor Services Distribution Record  
 SOP: Transfer of Blood Products  
 SOP: ARC Hospital Order Management Solutions

**7. REFERENCES**

NA

**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 zeros 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

<b>Version</b>	<b>Date</b>	<b>Reason for Revision</b>	<b>Revised By</b>	<b>Approved By</b>
3	3.1.17	Header: Added WAH. Section 5: Added in instructions for placing orders with Inova Blood Donor Services. Section 9: Updated Appendices A&B desired inventory levels.	SCodina	NCacciabeve
4	1.31.19	Header: Updated parent facility Section 5: Updated ARC process from manual paper to electronic ordering. Section 6: Added ARC SOP	SCodina	NCacciabeve
5	4.22.21	Header & Appendices: Changed WAH to WOMC Section 5: Updated blood supplier information.	SCodina	NCacciabeve
6	8.25.21	Header: Added FWMC Section 9: Added App C for FWMC; updated par inventory levels in App A&B; re-numbered App D. Footer: Updated prefix to AHC	SCodina	NCacciabeve
7	9.7.23	Removed calling National Blood Exchange for products; no longer active. Added recommendation to notify the CMO when severe blood shortages occur. Deleted Appendix D: Blood Shortage Alert—no longer in use. Updated desired inventory levels for all sites.	SCodina	NCacciabeve

**9. ADDENDA AND APPENDICES**

- Appendix A: Desired Inventory Levels for SGMC
- Appendix B: Desired Inventory Levels for WOMC
- Appendix C: Desired Inventory Levels for FWMC

**Appendix A  
 Desired Inventory Levels for SGMC**

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.**

<b>Red Blood Cells</b>							
<b>O-Pos</b>	<b>O-Neg</b>	<b>A-Pos</b>	<b>A-Neg</b>	<b>B-Pos</b>	<b>B-Neg</b>	<b>AB-Pos</b>	<b>AB-Neg</b>
80	15	45	10	20	3	0	0

<b>Plasma</b>			
<b>Group O</b>	<b>Group A</b>	<b>Group B</b>	<b>Group AB</b>
20	20	20	10

<b>Platelets</b>	<b>Cryoprecipitate</b>
Keep 1 platelet in inventory at all times. When possible, we should have at least 1 group AB, CMV-negative platelets for neonates available.	Maintain a minimum inventory of 10 pooled cryoprecipitate products at all times. Blood type is not considered for cryoprecipitate.

**Appendix B  
 Desired Inventory Levels for WOMC**

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.**

<b>Red Blood Cells</b>							
<b>O-Pos</b>	<b>O-Neg</b>	<b>A-Pos</b>	<b>A-Neg</b>	<b>B-Pos</b>	<b>B-Neg</b>	<b>AB-Pos</b>	<b>AB-Neg</b>
75	20	45	5	10	3	0	0

<b>Plasma</b>			
<b>Group O</b>	<b>Group A</b>	<b>Group B</b>	<b>Group AB</b>
20	20	15	6

<b>Platelets</b>	<b>Cryoprecipitate</b>
Keep 1 platelet in inventory at all times. Increase platelet inventory to 2 when open heart surgery cases are being performed.	Maintain a minimum inventory of 10 pooled cryoprecipitate products at all times. Blood type is not considered for cryoprecipitate.



**Appendix C  
 Desired Inventory Levels for FWMC**

1. Routine Deliveries are made on weekdays.
2. 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.**

<b>Red Blood Cells</b>							
<b>O-Pos</b>	<b>O-Neg</b>	<b>A-Pos</b>	<b>A-Neg</b>	<b>B-Pos</b>	<b>B-Neg</b>	<b>AB-Pos</b>	<b>AB-Neg</b>
15	5	5	2	2	2	0	0

<b>Plasma</b>			
<b>Group O</b>	<b>Group A</b>	<b>Group B</b>	<b>Group AB</b>
3	3	2	2

<b>Platelets</b>	<b>Cryoprecipitate</b>
Ordered as needed to meet patient needs	Ordered as needed to meet patient needs

**INOVA BLOOD DONOR SERVICES DISTRIBUTION RECORD**  
 45745 Nokes Blvd., Ste 160, Sterling, VA 20166  
 Phone: 571-434-3614 Fax: 571-434-3678

Facility: **Adventist Healthcare Shady Grove Medical Center** Ordered By: \_\_\_\_\_

Delivery Date: \_\_\_\_\_ Phone #: **240-826-6092**

Circle Priority: **REGULAR** **STAT**

Estimated Service Time\*: Service time to your facility may vary based on distance from Donor Center.  
 Call 571-434-3614 if a more specific delivery time is required.

Component	Inv.	Par Level	CMV Neg	IRR	CMV Neg & Irr	# Ordered	# Shipped
O Pos RBC		80					
O Neg RBC		15					
A Pos RBC		45					
A Neg RBC		10					
B Pos RBC		20					
B Neg RBC		3					
AB Pos RBC		0					
AB Neg RBC		0					
Baby RBC							
Baby RBC w/ Pedipak							
Whole Blood							
Single Donor Platelet							
PRT Platelet		2					
A Plasma		20					
B Plasma		20					
O Plasma		20					
AB Plasma		10					
Convalescent Plasma							
AB Liquid Plasma							
A Liquid Plasma							
A CryoReduced							
B CryoReduced							
O CryoReduced							
AB CryoReduced							
Single Cryo AHF							
Pooled Cryo AHF		10					

**REQUEST FOR PATIENT SPECIFIC UNIT(S) (i.e., Antigen Negative)**

Blood Type (Specify all compatible blood types)	
Antigen negative requested	Circle all antigens that apply:  C c E e K Fya Fyb Jka Jkb M N S s
Special Requirements: Circle all antigens that apply:	CMV Neg                      CMV Safe Irradiated                      HbS Negative
Special Blood Delivery Date	

Ordering Tech Initial: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**INOVA BLOOD DONOR SERVICES DISTRIBUTION RECORD**  
 45745 Nokes Blvd., Ste 160, Sterling, VA 20166  
 Phone: 571-434-3614 Fax: 571-434-3678

Facility: **Adventist Healthcare White Oak Medical Center** Ordered By: \_\_\_\_\_

Delivery Date: \_\_\_\_\_ Phone #: **240-637-5160**

Circle Priority: **REGULAR** **STAT**

Estimated Service Time\*: Service time to your facility may vary based on distance from Donor Center.  
 Call 571-434-3614 if a more specific delivery time is required.

Component	Inv.	Par Level	CMV Neg	IRR	CMV Neg & Irr	# Ordered	# Shipped
O Pos RBC		75					
O Neg RBC		20					
A Pos RBC		45					
A Neg RBC		5					
B Pos RBC		10					
B Neg RBC		5					
AB Pos RBC		0					
AB Neg RBC		0					
Baby RBC		0					
Baby RBC w/ Pedipak							
Whole Blood							
Single Donor Platelet							
PRT Platelet		2					
A Plasma		20					
B Plasma		15					
O Plasma		20					
AB Plasma		6					
Convalescent Plasma							
AB Liquid Plasma							
A Liquid Plasma							
A CryoReduced							
B CryoReduced							
O CryoReduced							
AB CryoReduced							
Single Cryo AHF							
Pooled Cryo AHF		10					

**REQUEST FOR PATIENT SPECIFIC UNIT(S) (i.e., Antigen Negative)**

Blood Type (Specify all compatible blood types)	
Antigen negative requested	<u>Circle all antigens that apply:</u> C c E e K Fya Fyb Jka Jkb M N S s
Special Requirements: <u>Circle all antigens that apply:</u>	CMV Neg                      CMV Safe Irradiated                      HbS Negative
Special Blood Delivery Date	

Ordering Tech Initial: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

**INOVA BLOOD DONOR SERVICES DISTRIBUTION RECORD**  
 45745 Nokes Blvd., Ste 160, Sterling, VA 20166  
 Phone: 571-434-3614 Fax: 571-434-3678

Facility: **Adventist Healthcare Fort Washington Medical Center** Ordered By: \_\_\_\_\_

Delivery Date: \_\_\_\_\_ Phone #: **301-203-2255**

Circle Priority: **REGULAR** **STAT**

Estimated Service Time\*: Service time to your facility may vary based on distance from Donor Center.  
 Call 571-434-3614 if a more specific delivery time is required.

Component	Inv.	Par Level	CMV Neg	IRR	CMV Neg & Irr	# Ordered	# Shipped
O Pos RBC		15					
O Neg RBC		5					
A Pos RBC		5					
A Neg RBC		2					
B Pos RBC		2					
B Neg RBC		2					
AB Pos RBC		0					
AB Neg RBC		0					
Baby RBC							
Baby RBC w/ Pedipak							
Whole Blood							
Single Donor Platelet							
PRT Platelet		0					
A Plasma		3					
B Plasma		2					
O Plasma		3					
AB Plasma		2					
Convalescent Plasma							
AB Liquid Plasma							
A Liquid Plasma							
A CryoReduced							
B CryoReduced							
O CryoReduced							
AB CryoReduced							
Single Cryo AHF							
Pooled Cryo AHF		0					

**REQUEST FOR PATIENT SPECIFIC UNIT(S) (i.e., Antigen Negative)**

Blood Type (Specify all compatible blood types)	
Antigen negative requested	Circle all antigens that apply:  C c E e K Fya Fyb Jka Jkb M N S s
Special Requirements: Circle all antigens that apply:	CMV Neg                      CMV Safe Irradiated                      HbS Negative
Special Blood Delivery Date	

Ordering Tech Initial: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_