TRAINING UPDATE

Lab Location:	SGMC and WOMC	**Date Implemented:**	9/25/20
Department:	Blood Bank	**Due Date:**	10/15/20

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:

Issuing Blood Components

Description of change(s):

New requirement during readback:

Staff must readback the expiration date on the front (unit label) and on the back (patient label).

See step 4 on appendix A.

Non Technical SOP

Title	**Issuing Blood Components**	
Prepared by	Leslie Barrett	Date: 7/22/2009
Owner	Stephanie Codina	Date: 10/1/2010

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

To describe the process for issuing blood and blood products.

2. SCOPE

All allocated and crossmatched blood products will be issued and dispensed per this procedure. Refer to procedure, "Emergency Release of Blood Products" for emergency release instructions.

3. RESPONSIBILITY

The blood bank staff members must understand and adhere to this procedure when issuing blood products for transfusion.

4. DEFINITIONS

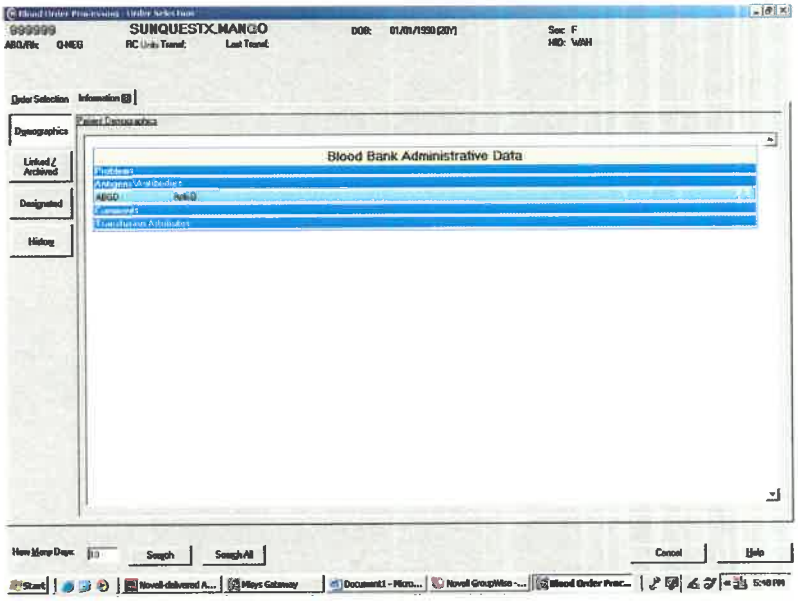
A. Blood Product Label - The label on the actual blood product. This label is attached when the blood product arrives from the supplier and remains attached to the blood product through final disposition.

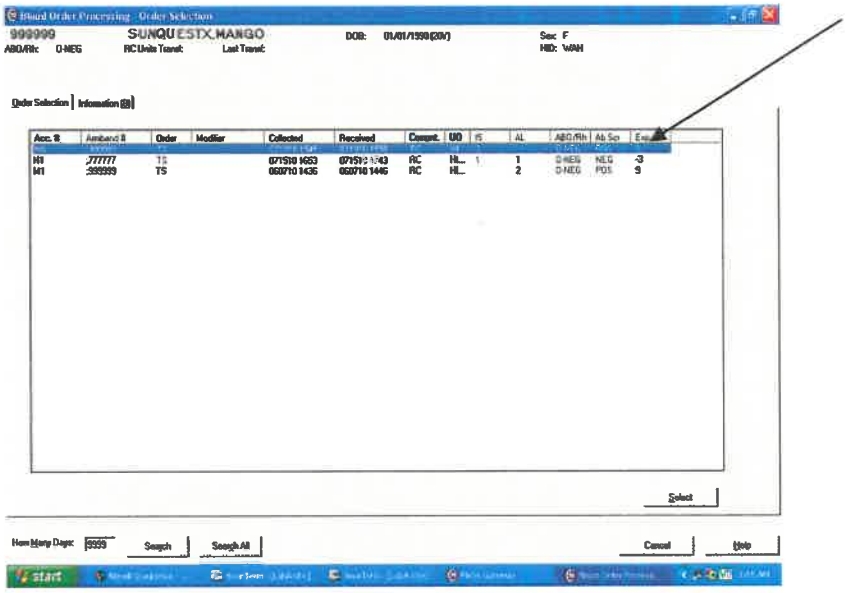
B. Patient/Unit Label - The white label that is printed by the blood bank and attached to a blood product when the blood product is allocated or crossmatched. This label contains information about recipient (name, MRN, BB number, birthdate, ABO/Rh, and crossmatch results) and the donor unit (unit number/DIN, expiration date and time, volume, ABO/Rh, and attributes).

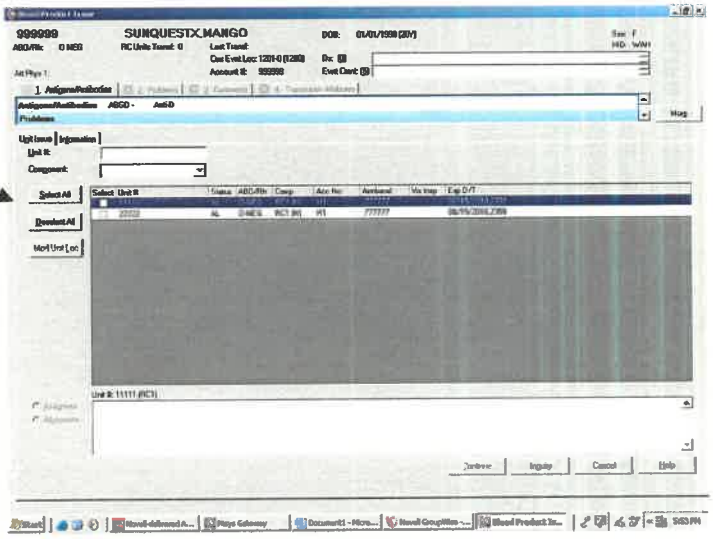
5. PROCEDURE

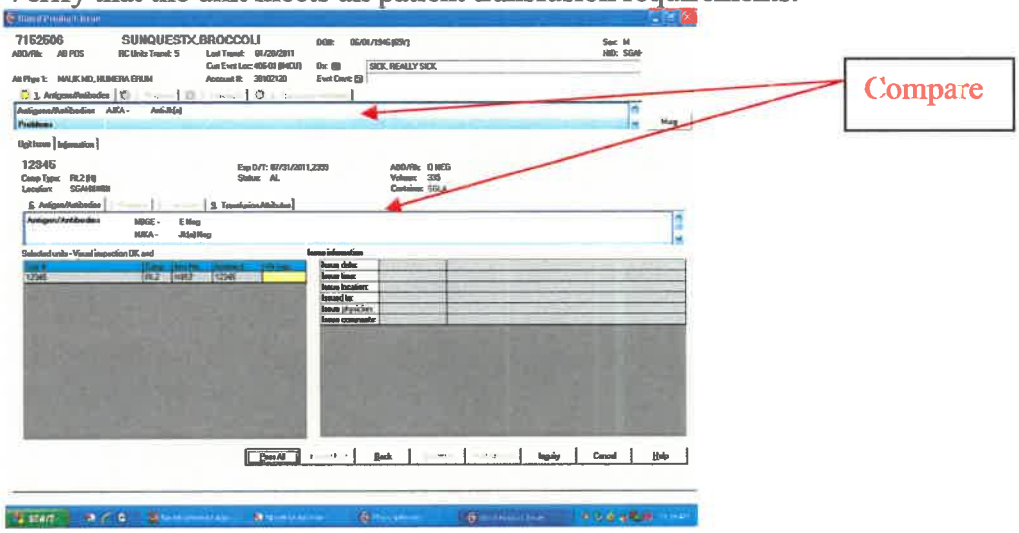
Issuing

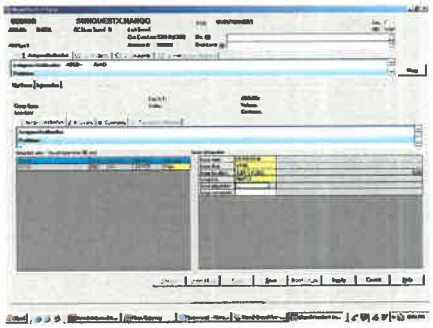
Step	Action
1	Blood products for transfusion may be requested by any paid hospital employee. A. Blood products may be requested via pneumatic tube station. B. Hospital volunteers and students are not allowed to handle blood products without supervision. Note: The Rehabilitation Hospital will only transfuse blood products during the dayshift when a provider is on site.
2	The person requesting the blood product(s) must present a completed "Request for Transfusion" form. At a minimum, the form must include: A. Patient's name B. Patient's medical record number C. Blood bank armband number D. Product type requested (red cell, plasma, platelet, cryo) E. Number of blood product requested F. Verification that the following have been verified: a. Transfusion order b. Patient's hospital armband c. IV access d. Baseline vital signs e. Consent G. Special transfusion attributes, if applicable H. Signature of requestor I. Date and time of request J. Nursing unit or department K. Pneumatic tube station number if blood product is being transported via pneumatic tube Review the form to ensure all information is complete.
3	Access Sunquest function "Blood Order Processing."
⚠ **Start Critical Step**	
4	At the "value" prompt, **scan** in the patient's medical record number from the "Request for Transfusion" form then click the "search: button. Note: The medical record number may be typed in only when there is no barcode to scan or when the barcode is damaged or will not read.

Step	Action
5	If more than one patient exists with the same medical record number, choose the correct patient from the pop-up menu then click the "select" button.
6	A "Blood Bank Administrative Data" screen will appear. Verify that the patient's full name and medical record number match the full name and medical record number on the "Request for Transfusion" form exactly. Review the screen for pertinent data such as: A. Blood type B. Current or clinically significant antibodies C. Blood bank armband number Note: If present, linked and/or archived data will appear first. Click demographics to see current data.  Click on the "Search All" button.

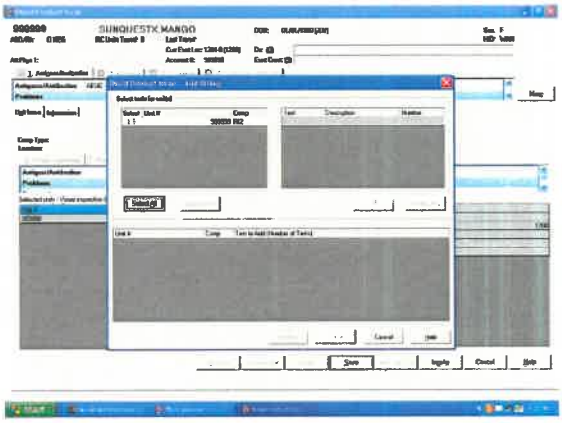
Step	Action
7	Click on the order selection folder and verify that the patient has at least 2 ABO/Rh specimens resulted. Note: This requirement may be waived when the patient's situation is unstable and universal donor products (O red cells and AB plasma products) are being issued. A. These results can be found in the ABO/Rh column. B. Each ABO/Rh determination will be listed in its own row.  In some cases, patient's with blood bank history before LIS upgrade may not show in this field. A. Access "Blood Bank Administrative Data Inquiry" and click on the ABO/Rh tab to see all ABO/Rh determinations to verify. OR B. Click on the "Information" tab, click the "History" box, then click on the "Purged Specimen" to verify.
8	Select the transfuse order accession and review for physician instructions and special attributes. Review the transfusion order for any new attributes. Ensure the blood product meets all physician specifications.
9	For red cell and whole blood transfusions, open the current T&S order. When the specimen result entry appears, verify that all testing has been completed. A. If the patient has a positive antibody screen, verify that the antibody identification has been entered. B. Verify that antigen typing has been performed if applicable. C. Verify that the appropriate crossmatch procedure (IS or AHG + IS) has been performed per crossmatch procedure. D. Review the patient's diagnosis. If the patient has a diagnosis of sickle cell disease, he/she must also receive sickle-negative red cells. Note: blood bank is not responsible for interpreting ICD-10 codes for sickle cell status. Click the "save" button.

Step	Action
10	A pop-up box will appear: "Continue to Blood Product Issue? Issue, Emergency, No, Help" Click on the "Issue" option.
11	The computer will branch to "Blood Product Issue." Note: If the patient has linked data, a prompt "View Linked Data" will appear. A. Click the "Yes" button. B. View the linked data. C. Click the "Unit Issue" tab to return to the issue screen.
12	Retrieve the requested blood product from the appropriate blood product storage container. A. Bring the request form with you to ensure retrieval of the correct blood product for the correct patient. B. Ensure the patient name and MRN on the blood product match the patient name and MRN on the request form. C. Ensure that the blood product you are retrieving matches the blood product that was requested. Clarify information with nursing staff if necessary. D. Always select autologous units first, directed donor units second, and homologous units last. E. Choose units with shorter expiration dates first.
13	At the "Unit Number" prompt, scan the unit number from the blood product label. The unit number will only be typed in when the barcode is unreadable. Then, at the "Component" prompt, scan the E code from the donor unit.  Note: 1. Blood products for more than one patient will never be issued to the same pickup person at the same time.

Step	Action
	2. Under normal circumstances, only 1 unit of a blood product will be issued at a time. Two units may be issued for a single patient at one time if any of the following apply: A. The units will both be transfused at the same time due to the patient's medical condition **and** the patient has 2 IV access sites; one for each unit to be issued. B. The patient is being transfused during renal dialysis. Two units of red blood cells may be issued to renal dialysis at one time. C. The blood products are being issued in a blood product transport cooler. D. Two units of plasma may be issued at one time if they will be transfused within the 4-hour timeframe. 3. Multiple products may be issued for one patient if the patient is undergoing an apheresis or exchange procedure provided the products are issued in a transport cooler.
14	Verify the E code and description on the blood product label are correct and all blood component preparation functions have been completed.
15	Verify that the unit meets all patient transfusion requirements.  Verify special transfusion attributes (CMV-negative, irradiated, HbS-negative, etc.) by comparing special attributes listed on the transfusion order form to the transfusion attributes listed in the patient's blood bank file. Enter attributes into the LIS as indicated. Verify the blood product meets all patient requirements. If the patient has special attribute markers (such as CMV-seronegative, irradiated, HbS-negative, etc.) in his/her historical data, ensure the blood product meets the attribute requirements.

Step	Action
16	Perform a visual inspection of the blood product. Appearances that would suggest the blood product should be quarantined include: A. Segments that appear lighter or darker in color than the primary bag contents B. Hemolysis C. Purple color to red cells D. Clots E. White particulate matter in the primary container F. Supernatant fluid that is discolored from normal appearance G. Gross lipemia H. Foreign objects in the primary container or ports I. Fluorescent green-colored plasma caused by bacterial contamination (green-colored plasma as a result of biliverdin or birth-control pills is acceptable) J. Dark green-brown-colored plasma due to liver or pancreatic disease.
17	At the "Vis Insp" prompt, select one of the following: A. Click "Pass All" if all units being issued pass the visual inspection. B. Click "Inspect Unit" if any of the units fail visual inspection. a. Quarantine and DO NOT ISSUE any blood product that does not pass the visual inspection. b. Notify a supervisor and return the blood product to the blood supplier. Click "Continue" to access the date and time prompts. 
18	At the "date" and "time" prompts, press the "tab" key to default the current date and time. Type in a date in time if the issue time does not match the current time (as after a computer downtime). Review the entry to ensure the correct issue date and time are documented.
19	The "issue location" will default to the location at which the patient is registered.

Step	Action
20	At the "issued to" prompt, type the identity of the person picking up the blood product using one of the following and press the "tab" key: A. First initial and last name (such as JDoe) B. First and last initials and title (such as JDRN) C. Tube station location if the blood product is being sent via pneumatic tube (example = TUBE15)
21	At the "issue comments" prompt, type: A. "IICE" if the blood products were issued in a blood product transport cooler. B. "IOR" if the blood products were issued to OR.
22	Perform the readback process per appendix A or B.
23	Press the "save" button.
⚠ **End Critical Step**	
24	A billing screen will appear. Bill charges if indicated. A. If no charges are to be billed, click on the "cancel" button. Note: Failure to click the cancel button may void the issue process in the computer. B. If charges are to be billed, a. Select the unit(s) that the charges will be added to by clicking the box next to the unit number. b. The right column of the billing screen will activate. c. In the "test" column, type in the billing code. i. Type ";DCMV" to charge for a CMV-seronegative blood product if the patient requires CMV-seronegative blood products. For neonatal aliquots, bill only the first aliquot from a unit. ii. Charge for sickle negative units for neonates on the first aliquot only. 1. Type ";SCS" for sickle testing performed in house. 2. Type ";RHGBS" for sickle testing performed at ARC. iii. Type "';IRRC" to charge for irradiating a red blood cell product **only if the product type has not been changed to an irradiated unit."** This should be added to all neonatal red cell products. iv. Type ";IRRP" to charge for irradiating a platelet product **only if the product type has not been changed to an irradiated unit.** (as in HLA-matched platelets). This should be added to all neonatal platelet products. d. In the "number" column, type the number of those charges to be billed. e. Click the "OK" button.

Step	Action
	f. Click the "save" button. 
25	Place the blood product in a sealed plastic bag for transport through the hospital. Double-bag the unit when sending via pneumatic tube.
26	If the unit is sent via pneumatic tube, the person removing the blood product from the tube station will complete the information on the yellow copy of the Request for Transfusion form and return the form to the blood bank within 15 minutes.
27	If the blood product was double-crossmatched, discard the patient/unit label for the other patient and crossmatch additional blood products if indicated.

Sending Via Pneumatic Tube

Step	Action
1	Place the blood product in **two** sealed ziplock bags then place into a tube carrier. Only one unit of blood product may be shipped at a time. If more than one blood product must be tubed, each unit should be sent in a different carrier.
2	Separate the two copies of the Request for Transfusion form. A. Place the top (white) copy in the appropriate bin. B. Place the second (yellow) copy in the tube carrier. Do not place the paper in the sealed bag with the blood product.
3	Close the carrier securely. Ensure that nothing is protruding from the closed carrier to include edges of the paper or plastic bag.
4	Place the carrier upright on the metal arm.
5	Verify the display shows "Station On" or "Ready."
6	Press "Clear" or "Standard Send."

Step	Action
7	Use the keypad to enter the desired station number and press the "Send" key.
8	Verify on the display that the carrier has been transported to the appropriate station. The carrier should be delivered to the correct station within 5 minutes.
9	The clinical staff member who retrieves the component from the pneumatic tube station is responsible for completion of the Request for Transfusion form. A. He/she will write the date and time that the blood product was received and sign the form. B. The form will be sent via pneumatic tube to the blood bank. Blood bank staff will match it to the white copy of the form and file it in the appropriate box.
10	Contact the patient care area if the completed "Request for Transfusion" form is not returned to the blood bank within 15 minutes. Follow-up routinely until the form is returned.

Downtime Process

Step	Action
1	The "Downtime Blood Administration" form is used during periods of computer downtime.
2	If Sunquest is up, print a patient/unit label for the blood product and place it in the box in the upper, left-hand corner of the form. If Sunquest is down, legibly handwrite the following information in the appropriate boxes on the form: A. Recipient's full name B. Recipient's medical record number C. Recipient's blood bank number D. Recipient's birthdate E. Recipient's ABO/Rh F. Results of crossmatch testing G. Donor ID (DIN/unit number) H. Unit expiration date and time I. Unit ABO/Rh J. Unit Attributes
3	At the time of issue, legibly handwrite the following information on the form: A. Date and time of issue B. Person/pneumatic tube issued to C. Visual inspection of the blood product
4	Nursing staff will document the transfusion on the form and scan into the electronic medical record.

6. RELATED DOCUMENTS

Form: Request for Transfusion
Form: Downtime Blood Administration form
SOP: Emergency Release of Blood Products
SOP: Entering Special Attributes into the LIS
SOP: Crossmatch
SOP: Issuing Blood Products in a 930 Medical Transport Cooler
SOP: Issuing Blood Products in a Max+ Blood Shipper
SOP: Quarantine of Blood Products

7. REFERENCES

1. Fung, M.K., 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, current edition. AABB Publishing, Bethesda, Maryland.

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
		Supersedes SOP WAB302.01		
000	10/1/2010	Update owner Section 4: add definitions Section 5: update to reflect LIS upgrade and format change, add content of SOP WAB305.01 Section 7: update to current versions	S Codina	Dr Cacciabeve
001	2.15.2012	Section 5, step 7: Added instructions to search for historical ABO/Rh data. Section 5, step 8: Added requirements to review testing prior to issuing rbcs Section 5, step 10: Added instructions for linked data Section 5, step 11: Added requirement to ensure correct blood product for correct patient Section 5, step 17: Added step Section 5, step 24: Added step Section 9: Added Appendix A	S Codina	Dr Cacciabeve
002	8.29.13	Section 5: Reworded billing section for clarity Section 9: updated photo in appendix A for ISBT labeling, added instructions to manually document visual inspection and issue process in case LIS issue is not captured.	S Codina	Dr Cacciabeve

Version	Date	Reason for Revision	Revised By	Approved By
003	2.26.15	Sections 4, 5, 6: Removed references to the Blood Bank Product Tag and Administration Record and replaced with patient/unit label. Section 5: Added sending via pneumatic tube for both SGMC and WAH. Added references to the "Downtime Blood Administration" form. Added downtime process. Footer: Version # leading zero's dropped due to new EDCS in use as of 10/7/13.	S Codina	Dr Cacciabeve
4	2.14.17	Header: Added WAH	L Barrett	Dr Cacciabeve
5	1.15.18	Section 3: Simplified responsibility Section 5: Updated checking attributes on transfusion order form; Added ARH statement Appendix B: Added for clarity	S Codina	Dr Cacciabeve
6	2.11.20	Header: Changed WAH to WOMC Section 5: QA failures from testing will no longer need to be overridden at issue. Removed from SOP. Removed references to 930 transport cooler and replaced with transport cooler. Section 6: Updated documents Section 7: Updated references	S Codina	Dr Cacciabeve
7	9.18.20	Section 9: Updated Appendices A & B to require readback of expiration date and time	SCodina	N Cacciabeve

9. ADDENDA AND APPENDICES

A. Read Back Process for Issuing Blood Products with a Pickup Person
B. Read Bank Process for Issuing Blood Products when using the Pneumatic Tube

Appendix A
Read Back Process for Issuing Blood Products with a Pickup Person

Blood bank staff should prompt the pickup person what to read off. For example, "Read me the patient name."				
Step	**Pick-Up Person**	**BB Tech**	**BB Tech**	**Pick-Up Person**
1	Reads the recipient's full name from the Patient/Unit label	Verifies the name on the Request for Transfusion form as it is read	Reads the recipient's full name from the Request for Transfusion form	Verifies the name on the Patient/Unit label as it is read
2	Reads the recipient's medical record number from the Patient/Unit label	Verifies the medical record number on the Request for Transfusion form as it is read	Reads the recipient's medical record number from the Request for Transfusion form	Verifies the medical record number on the Patient/Unit label as it is read
3	Reads the recipient's blood bank armband number from the Patient/Unit label	Verifies the blood bank armband number on the Request for Transfusion form as it is read	Reads the recipient's blood bank armband number from the Request for Transfusion form	Verifies the blood bank armband number on the Patient/Unit label as it is read
4	Reads the unit number from the Patient/Unit label	Verifies the unit number on the blood product label as it is read	Reads the unit number from the blood product label	Verifies the unit number on the Patient/Unit label as it is read
5	Reads the expiration date and time from the Patient/Unit label	Verifies the expiration date and time on the blood product label as it is read		
6	Reads the patient blood type and Rh from the black side Patient/Unit label	Notes the unit blood type and Rh on the blood product label and verifies the product group and type is compatible with the patient's group and type as it is read		
7			Points to the type of blood product being requested then show the pick-up person that the correct type of blood product was issued by pointing to the product description.	Verifies that the product requested is the product being issued
8			Points to the labeling on the unit that demonstrates the patient's special attributes have been honored when applicable based on LIS info and paper request.	Verify that special attributes ordered are being honored

Resolve any discrepancies before issuing the blood product.

Appendix B
Read Back Process for Issuing Blood Products when using the Pneumatic Tube

Step	Action
1	Compare the recipient's full name on the Request for Transfusion form to the name on the Patient/Unit Label to ensure they match exactly.
2	Compare the recipient's medical record number on the Request for Transfusion form to the medical record number on the Patient/Unit Label to ensure they match exactly.
3	Compare the recipient's blood bank armband number on the Request for Transfusion form to the blood bank armband number on the Patient/Unit Label to ensure they match exactly.
4	Compare the unit number on the blood product label to the unit number on the Patient/Unit Label to ensure they match exactly.
5	Compare the expiration date and time on the blood product label matches the expiration date and time listed on the patient/unit label and verifies the expiration date/time have not been exceeded.
6	Compare the blood group and type on the blood product label to the blood group and type on the Patient/Unit label to ensure the product is compatible with the recipient blood type.
7	Verify the product requested on the Request for Transfusion form is the product being issued.
8	Verify all special attributes have been honored.
9	Resolve any discrepancies before issuing the blood product.