TRAINING UPDATE

Lab Location:	SGAH and WAH	**Date Implemented:**	03.04.2015
Department:	Blood Bank	**Due Date:**	03.15.2015

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:

Issuing Blood Components

Description of change(s):

1. Updated the procedure to remove references for the pink form and replace with "Patient/unit label."

2. Added procedure for sending via pneumatic tube at SGMC.

3. Added references for new, "Downtime Blood Administration" form and added downtime process.

4. Created one SOP for both SGMC and WAH (previously, they were different due to pneumatic tube policies).

5. NOTE: Both hospitals must now double-bag blood products. This is a SGMC requirement. Both bags MUST be sealed to prevent leaks from contaminating the system.

Electronic Document Control System

Quest Diagnostics

Document No.: WAH.BB10[4]

Title: ISSUING BLOOD COMPONENTS

Owner: LESLIE.X.BARRETT LESLIE BARRETT

Status INWORKS

Effective Date: 01-Apr-2015

Next Review Date:

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:

Review:

Print Name	Signature	Date

Form revised 3/31/00

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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 member who issues the blood product is responsible for identifying the product and intended recipient. Records must be maintained of inspection of the unit for color and appearance, verification of record review, the technologist issuing the product, and the person receiving the unit.

    All blood bank staff members are required to demonstrate competency for verification and documentation of component issue in accordance with the policy and procedure.

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

Note: The individual(s) performing this process should NOT be interrupted. If interruptions occur, the checking process must be restarted and repeated.
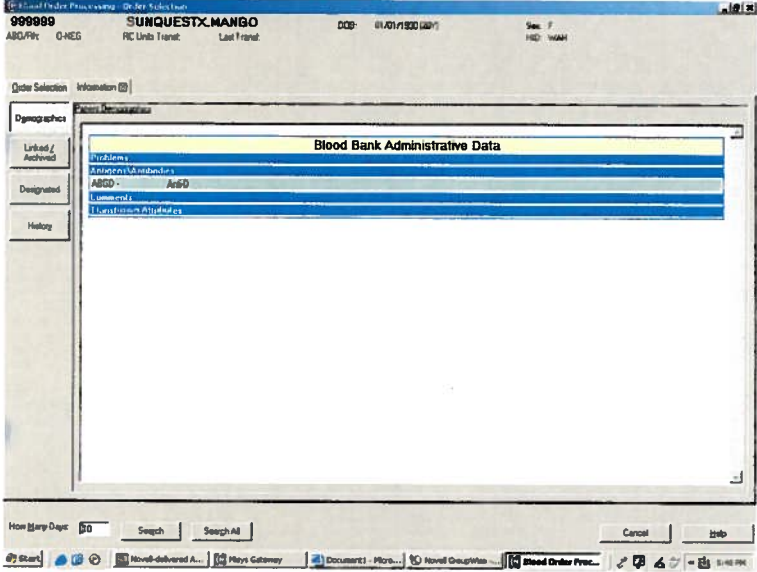
Issuing

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 are not allowed to handle blood products.
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."
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.
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.
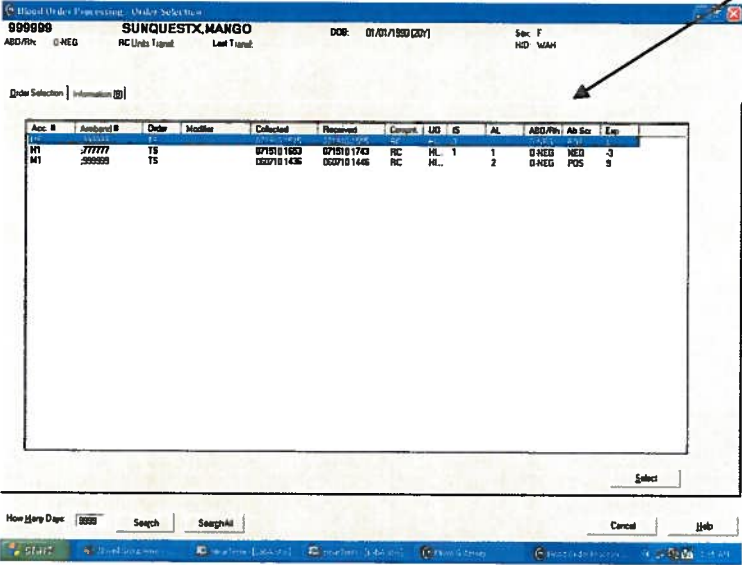
Step	Action
6	A "Blood Bank Administrative Data" screen will appear. Verify that the patient's full name and medical record number match the full name and medical record number on the "Request for Transfusion" form exactly. Review the screen for pertinent data such as: A. Blood type B. Current or clinically significant antibodies C. Special transfusion attributes (CMV-negative, irradiated, etc.) Verify the blood product meets all patient requirements. If the patient has special attribute markers (such as CMV-seronegative, irradiated, sickle-negative, etc) in his/her historical data, ensure the blood product meets the attribute requirements. Click on the "Search All" button.

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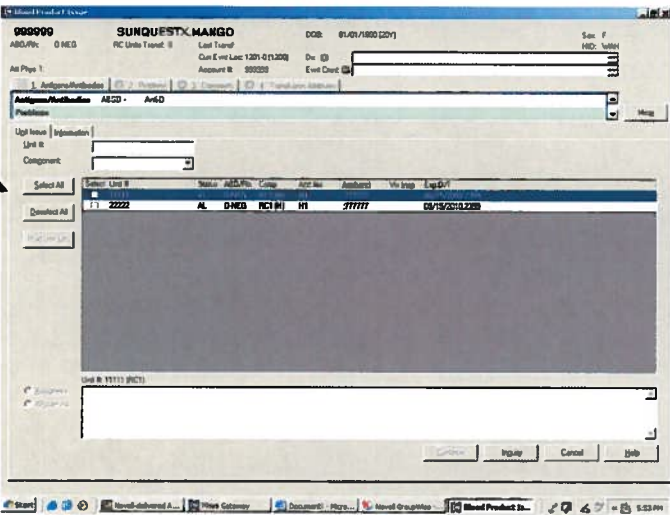Page 4 of 15

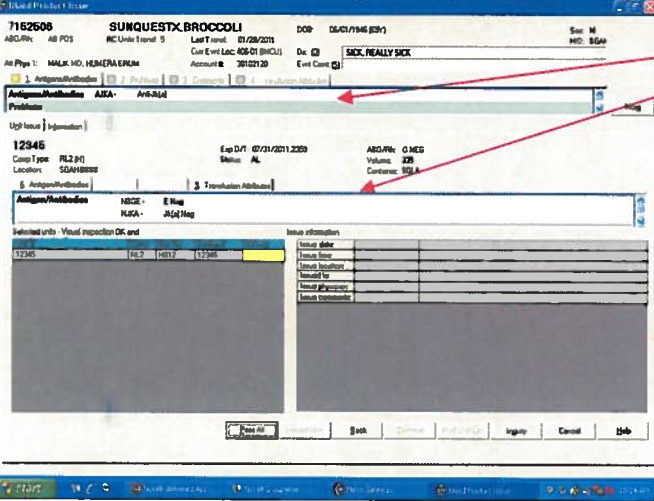| Step	Action
7	Click on the order selection folder and verify that the patient has at least 2 ABO/Rh specimens resulted. Note: This requirement may be waived when the patient's situation is unstable and universal donor products are being issued. A. These results can be found in the ABO/Rh column. B. 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. Ensure the blood product meets 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 the appropriate crossmatch procedure (IS or AHG + IS) has been performed per crossmatch procedure. C. Review the patient's diagnosis. If the patient has a diagnosis of sickle cell disease, he/she must also receive sickle-negative red cells. Click the "save" button.

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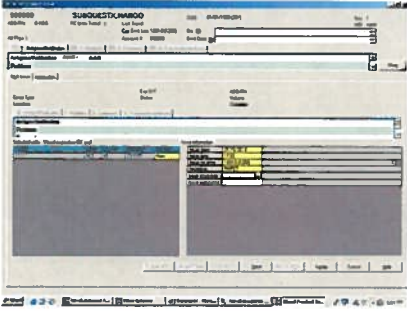| Step	Action
	A. If QA failures were generated during testing, they will reappear. Verify the reason for the QA failure and override if applicable. B. Notify a supervisor if questions arise.
10	A pop-up box will appear: "Continue to Blood Product Issue? <u>I</u>ssue, <u>E</u>mergency, <u>N</u>o, <u>H</u>elp" 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. Ensure the patient name and MRN on the blood product match the patient name and MRN on the request form. B. Ensure that the blood product you are retrieving matches the blood product that was requested. Clarify information with nursing staff if necessary. C. It may be necessary to bring the request form with you to ensure retrieval of the correct blood product for the correct patient. D. Always select autologous units first, directed donor units second, and homologous units last. E. Choose units with shorter expiration dates first.
13	Review the patient/unit to ensure the component type and donor identification number (unit number) listed on the form match those on the blood product. **Do not issue the blood product if discrepancies exist.**
14	Adhere the patient/unit label to the blood product if not already done. DO NOT cover any required information on the blood product base label.

Step	Action
15	In 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.

Note:
1. Blood products for more than one patient will never be issued to the same pickup person at the same time.
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. Refer to procedure, "Issuing Blood Products in a 930 Medical 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. Refer to procedure, "Issuing Blood Products in a 930 Medical Transport Cooler."

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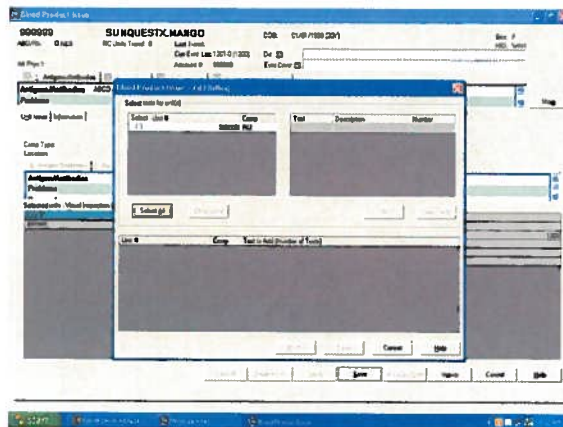| Step	Action
16	Select the correct component type from the dropdown list. A. The component type will autofill if only one blood product with that unit number is in inventory. B. Click on the "continue" button.
17	Check each blood product label for accuracy and completeness. A. Verify that the product type matches in the LIS and on the blood product label. B. Verify that the expiration date (and time if applicable) matches in the LIS and on the blood product label. C. Verify that the recipient's blood bank number matches in the LIS and on the blood product label. Pay close attention to the labels and LIS entry of blood products that were thawed, aliquoted, or irradiated by the blood bank.
18	Verify that the unit meets all patient transfusion requirements.
19	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.

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Step	Action
20	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.
21	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.
22	The "issue location" will default to the location at which the patient is registered.
23	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 = TUBE1500 or TUBE2A)
24	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.
25	Perform the readback process per appendix A if the blood product was picked up in person. Readback is waived when sending blood products via pneumatic tube.
26	Press the "save" button.

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Step	Action
27	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 bee 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. f. Click the "save" button.

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Step	Action
28	Place the blood product in a sealed plastic bag for transport through the hospital. Double-bag the unit when sending via pneumatic tube.
29	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.
30	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."
6	Press "Clear."
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.

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Step	Action
9	The clinical staff member who retrieves the component from the pneumatic tube station is responsible fore 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.

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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: Component Quarantine
SOP: Error Reporting for Blood and Components

7.   REFERENCES

1. 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.
2. Standards for Blood Banks and Transfusion Services, 2014. AABB, 29th ed. 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

Form revised 3/31/00

| 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 |

9. ADDENDA AND APPENDICES
Read Back Process for Issuing Blood Products

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Appendix A
Read Back Process for Issuing Blood Products

Part 1:

1. The blood bank technologist will read from the "**Request for Transfusion**" form that was brought to the blood bank.
2. The person picking up the blood product will read from the "**Patient/Unit Label.**"

Step	BB Tech	Pick-Up Person	Pick-Up Person	BB Tech
1 (WAH Only)	Reads the recipient's full name	Verifies the name as it is read	Reads the recipient's full name	Verifies the name as it is read
2	Reads the recipient's medical record number	Verifies the medical record number as it is read	Reads the recipient's medical record number	Verifies the medical record number as it is read
3	Reads the recipient's blood bank number	Verifies the blood bank number as it is read	Reads the recipient's blood bank number	Verifies the blood bank number as it is read
4	Point to the type of blood product being requested then show the pick-up person that the correct type of blood product was issued.	Verify that the product requested is the product being issued		
5	Point 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		

Part 2:

1. The blood bank technologist will read from the blood product label.
2. The person picking up the blood product will read from the "**Patient/Unit Label.**"

Step	BB Tech	Pick-Up Person	Pick-Up Person	BB Tech
6	Reads the unit number	Verify the unit number as it is read	Reads the unit number	Verify the unit number as it is read
7	Reads the blood group and type of the unit	Verifies the blood group and type as it is read		
8	Verify the product expiration date is current	Verify the product expiration date is current		

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