TRAINING UPDATE

Lab Location: GEC
Department: Blood Bank
Date Implemented: 11.8.2012
Due Date: 11.30.2012

DESCRIPTION OF PROCEDURE REVISION

Name of procedure:
Blood Components
Description of change(s):
• Added instructions for performing a visual inspection of blood products • Added procedure for shipping blood products in a transport cooler • Updated procedure for emergency release to reflect the new form

EMPLOYEE SIGNATURES

I have read and understand the procedure described above:

Name	**Signature**	**Date**

Non-Technical SOP

Title	**Blood Components**	
Prepared by	Leslie Barrett	Date: 6/16/2009
Owner	Stephanie Codina	Date: 7/29/2010

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:	

12 month (or new) management review and approval: Signature acknowledges SOP version remains in effect with NO revisions.		
Print Name	**Signature**	**Date**

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1. PURPOSE

This procedure describes the process for shipping, storage, transfer and issue of blood components; and the process in the event of an adverse transfusion reaction.

2. SCOPE

This procedure applies to blood components stored and transfused at GEC.

3. RESPONSIBILITY

SGAH Blood Bank (SGBB) staff ship red blood cells to maintain stock at the Germantown laboratory.

Germantown Lab (GEC) staff document receipt, storage and disposition of red blood cells; and notify SGBB whenever units are released for transfusion and in the event of an adverse reaction.

4. DEFINITIONS

SGBB – Shady Grove Adventist Hospital blood bank
GEC – Germantown laboratory at the emergent care facility

5. PROCEDURE

A. Inventory of Blood Components
   1. Two units of O negative red blood cells are routinely stocked.
   2. Replacement unit(s) will be provided by SGBB upon notification of transfusion of any component.
   3. SGBB will coordinate the rotation of inventory to avoid expiration of components.

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B. Receiving Components from SGBB

1. Remove and visually inspect the units for color and appearance.
    a. Visual abnormalities includes segments that appear lighter or darker in color than the contents of the primary bag, purple color of red cells, clots, white particulate matter in the primary container, supernatant fluid that is discolored from normal appearance, gross lipemia, or foreign objects in the primary container or ports.
    b. Notify SGBB staff immediately if the visual inspection is unacceptable.
2. Check red blood cell unit numbers against the Internal Blood Product Transfer/Inventory form. Sign and date/ time shipping form in the 'for receiving site' section.
3. Discrepancies between the form and shipment are to be brought to the attention of the supervisor or SGBB staff.
4. Record the following on the Blood Product Disposition Log
    a. unit number (write or use label from back of bag)
    b. unit blood type
    c. unit expiration date
    d. date/time received
    e. visual check (S for satisfactory, U for unsatisfactory)
    f. tech initials ID
5. Retain Transfer/Shipping form in the appropriate file.
6. Place the units on the designated shelf in the blood bank refrigerator (refer to C).

C. Storage of Components

Red Blood Cells

1. Storage temperature: 1-6 C
2. Storage period:
    a. ACD and CPD units 21 days
    b. CPDA-1 units 35 days
    c. ADSOL RBC's 42 days
3. Refer to the procedure "Helmer Undercounter Refrigerator"for specific requirements for blood storage refrigerators.

D. Returning Components to SGBB

1. Visually inspect the unit for color and appearance.
    a. Visual abnormalities includes segments that appear lighter or darker in color than the contents of the primary bag, purple color of red cells, clots, white particulate matter in the primary container, supernatant fluid that is discolored from normal appearance, gross lipemia, or foreign objects in the primary container or ports.
    b. Notify SGBB staff immediately if the visual inspection is unacceptable
2. Complete an Internal Blood Product Transfer/Inventory Form with the following:
    a. unit number (write or use label from back of bag)
    b. unit blood type
    c. product (RC = Red blood cells)
    d. unit expiration date
    e. circle the appropriate storage range
    f. sign and record date/time packed

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3. Record the following on Blood Product Disposition Log under section 'Units returned to SGAH'
    a. date/time
    b. visual check (S for satisfactory, U for unsatisfactory)
    c. tech ID
4. Pack the units for transport. The units must maintain a temperature between 1° and 10°C.
    a. If a medical transfer cooler is used,
        1) Medical transport coolers are shipped from SGBB with the appropriate ice blocks in place. Do not remove the ice blocks from the cooler.
        2) Place the red cells in the wire basket located inside the cooler.
        3) Divide the blood products equally among each side of the wire basket. Lay the red cells flat in the cooler.
        4) Place 1 polar pack gel on each side of the wire basket, on top of the red cells.
        5) Place one copy of the transfer form on top of the plastic liner.
        6) Place the cooler lid on the cooler and secure shut.
    b. If a shipping box is used,
        1) Place red cells inside a plastic liner and seal the liner.
        2) Place the red cells in a blood shipping box in an upright fashion. Do not lay units flat.
        3) Place approximately 7 lbs (3Kg) of wet ice in a plastic bag. Tie the bag closed. Place the ice on top of the blood product bags.
        4) Place the Styrofoam insert.
        5) Place one copy of the transfer form on top of the Styrofoam insert.
        6) Seal the box with tape and write the destination across the top.
5. Arrange for transportation to SGBB or send with round trip courier.
6. Retain the copy of Transfer/Shipping form in the appropriate file.

E. <u>Issuing Components</u>
1. Emergency Department personnel will notify the laboratory that uncrossmatched blood is needed.
2. Laboratory tech will obtain patient information (patient name and medical record number or hospital number).
3. A "Request for Emergency Release of Blood Products" form will be presented or prepared in the GEC lab (DO NOT withhold blood products if the form is not brought). The BB armband number may be omitted if a specimen has not been collected.
4. Complete the "Request for Emergency Release of Blood Products" form with the following information:
    a. Patient name and medical record number (if not already present).
    b. Pretransfusion testing that has not been completed.
    c. Red cell unit number.
    d. ABO/Rh of each blood product.
    e. Expiration date of each blood product.
    f. Type of blood product.

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5. Visually inspect each unit and document the appearance on the form (A for abnormal or N for normal).
6. Apply a "Warning, Uncrossmatched Blood" label to each unit.
7. Fill in the issue information (issued to, issued by, date issued, time issued).
8. There may be times when the provider is unable to sign the "Request for Emergency Release of Blood Products" form immediately. NEVER withhold blood products if the form is not signed by the provider.
    a. If the form **is** signed by the provider, return the white copy to the runner.
    b. If the form **has NOT** been signed by the provider:
        1) Return the white and yellow copies to the runner.
        2) Print the name of the physician on the retained pink copy.
        3) The runner is responsible for obtaining the provider's signature and returning the yellow copy of the form to the lab after the provider's signature is obtained.
9. Remind nursing personnel that a patient type and screen sample should be collected as soon as possible (if not already done).
10. Document unit issue and visual inspection to ED on Blood Product Disposition Log form.
11. Immediately order two replacement O negative red cell units from SGBB.
12. Fax one copy of each completed "Request for Emergency Release of Blood Products" form to SGBB (Fax 240-826-5864). Send the patient's type and screen sample to SGAH blood bank as soon as possible.
13. If an issued blood unit is returned (not transfused) from ED, it cannot be returned to inventory or reissued for transfusion until the following conditions have been met:
    a. The container closure has not been penetrated or entered in any manner. This is to be certain that sterility is maintained.
    b. The unit of blood has not remained out of a monitored refrigerator longer than 30 minutes **and** the temperature of the unit must be between 1° and 10°C (Wrap the unit around a thermometer and secure with a rubber band, read the temperature after several minutes).
    c. Sealed segments of integral donor tubing must have remained attached to the container unless subsequent re-issuance is to the same patient and based on the same crossmatch for which it was initially issued.
    d. The records must indicate that the unit has been inspected and that it is acceptable for reissue.
    e. Document unit return on Blood Product Disposition Log. Include the following:
        1) Date/time returned
        2) Visual inspection
        3) Temperature of unit
        4) Tech ID

F. Transfusion Reaction
1. GEC staff will be notified by the transfusing personnel of all suspected transfusion reactions/incidents/errors.
    Note: Refer nursing personnel to the hospital "Transfusion Reaction Procedure", (policy number 101-01-136 on the Hospital Intranet) as needed.

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2. If a transfusion reaction is suspected, inform the clinical staff to STOP the transfusion immediately.
3. Obtain the patient name, medical record number, caller's name and phone number.
4. Contact SGBB staff and relay this information (240-826-6092).
5. SGBB staff will call the transfusing personnel and initiate routine transfusion reaction protocol.
6. GEC staff are responsible for immediately sending post-transfusion blood bank specimen, blood unit bag and associated paperwork to SGBB.
7. GEC staff is also responsible for any onsite testing (UA, etc.) requested.

6. RELATED DOCUMENTS

- Request for Emergency Release of Blood Products Form
- Internal Blood Product Transfer/Inventory form
- Blood Product Disposition Log

SGAH Blood Bank procedures:

- Storage of Blood and Components
- Inventory for Blood and Components
- Shipping Blood and Components
- Emergency Issue of Blood

7. REFERENCES

1. Roback, J.D., Combs, M.R., Grossman, B.J., Hillyer, C.D. 2008. Technical Manual of the AABB, 16th ed. AABB Publishing, Bethesda, Maryland
2. Standards for Blood Banks and Transfusion Services, 26th ed. 2009, AABB Publishing, Bethesda, Maryland.

8. REVISION HISTORY

Version	Date	Reason for Revision	Revised By	Approved By
		Supersedes SOP GEC.B001.001		
000	7/29/2010	Update owner Section 5.F: add Hospital policy, add item 2	L. Barrett	Dr Cacciabeve
001	10.9.12	Section 5: Added instructions for performing visual inspection, Updated instructions for shipping blood products in a medical transport cooler, Updated Emergency Release procedure with instructions for use of new form.	SCodina	NCacciabeve

9. ADDENDA AND APPENDICES

- Sample Uncrossmatched Blood label

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Sample Uncrossmatched Blood label: