University of Washington Medical Center 1959 NE Pacific Street. Seattle, WA 98195 Transfusion Services Laboratory Policies and Procedures Manual	Original Effective Date: 03-11-2016 Revision Effective Date: 03-27-2021	Number: PC-0012.03

TITLE: Issuing Blood Components

PURPOSE
To provide instructions for issuing blood components for transfusion

PRINCIPLE & CLINICAL SIGNIFICANCE
This SOP describes the workflow and inspection process that ensures all necessary testing is complete and blood and blood components meet patient requirements and pass a visual inspection prior to issue for transfusion.

POLICY
- Issue of blood is documented in the Laboratory information system or on a ***Downtime Issue Log*** at the time of issue prior to leaving the lab. Outcome of the visual inspection is included.
- Usually, only one blood component is issued at a time except in the following circumstances:
    - Refrigerated components are issued in a blood refrigerator
    - Transfusionist requests issue of 2 components and states the patient has access to allow transfusion of both at the time of issue
- Issue of blood components is requested by sending a ***Blood Product Release Form*** to the TSL.
    - Blood Product Release Forms will print in the TSL on the product order printer. When EPIC is unavailable, the requester will fill out a manual form and send it via pneumatic tube or hand deliver it to the TSL
    - The full name and medical record of the patient, and number and component type must be provided by the person requesting issue. It is not acceptable to provide the name and medical record number to the requestor or person picking up blood.
- Blood components may be issued to a person or sent via pneumatic tube to the station specified by the requestor. Prior to sending blood components, the requestor is notified by phone the product is on its way
    - Blood components sent via pneumatic tube are placed in a plastic bag prior to loading in a carrier.
    - Blood Product Release Form (BPRF) is sent with blood sent via the pneumatic tube. The person removing the blood component from the station will sign the form and send it back via pneumatic tube station to the Transfusion Service Laboratory (TSL)
- **Issuing Blood to the Operating Room (OR)**
    - Non-Bleeding Emergency: Blood should be delivered to the room within 20 minutes of request
    - Massive Transfusion Protocols: Blood should be delivered as quickly as possible according to SOP Massive Transfusion and OB Hemorrhage Protocols and Sop Emergency Release of Blood Products

REAGENTS/SUPPLIES/EQUIPMENT

Reagents	Supplies	Equipment
NA	NA	Laboratory Information System computer or *Downtime Issue Log*

QUALITY CONTROL

The Laboratory Information System (LIS) is validated at implementation and whenever significant changes are made to the system to assure it functions as expected.

INSTRUCTIONS:

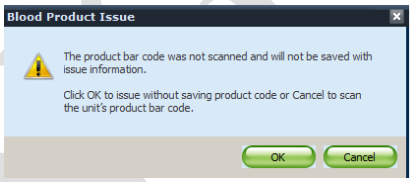
Table of Contents

Issuing Blood Component(s)

STEP	ACTION
1	Receive the completed Blood Product Release Form (BPRF)
2	Time Stamp the BPRF with time received in the department
3	Enter the patient ID# in **Blood Bank Inquiry** to verify the requested product (s) is available for the patient: **If requested product is** / **Then** Available / Proceed to step 4 Not available / Refer issue to UWMC TSL MLS staff for allocation
4	Open the **Blood Product Issue** screen and perform the following steps: • Select "Patient ID" from the drop-down menu • Scan the medical record number from the BPRF (type in manually if necessary) • Select the appropriate Billing Account # from the Event Selection window (if not already selected) to ensure billing is applied to the correct encounter
5	Enter the appropriate component group(s) and click <Add> • RBCG – Red Blood Cell Group (includes granulocytes) • PLG – Platelet Group • PLSG – Plasma Group • CRYG – Cryoprecipitate Group
6	Click <Select> to see what blood components are allocated to the patient and available for issue
7	Select the blood component from refrigerator or platelet incubator based on the following criteria: • Autologous, before directed units or HLA selected), before allogenic units • Unit expiring first if more than one unit is available **NOTE:** Any questions should be referred to MLS staff at the UWMC TSL

<table>
<tr><th>STEP</th><th>ACTION</th></tr>
<tr><td>8</td><td>Record the issue date/time on the Transfusion Record of each blood component

NOTE: Time stamp may be used</td></tr>
<tr><td>9</td><td>Verify the blood component meets all patient transfusion requirements by reviewing the patient transfusion requirements located under the tabs at the top of the screen

NOTE: Click < More> to review patient's requirements if there are multiple lines of text not easily reviewed in the two-line display window.</td></tr>
<tr><td>10</td><td>Scan the unit number and component type to select the unit in Sunquest and verify a checkmark displays next to the correct unit
CRITICAL: It is critical the Ecode is scanned and not selected from the dropdown box. Sunquest will give the following warning when components have been selected using the dropdown. Not scanning will give errors with EPIC downstream.
• Click <Cancel>
• Scan or enter Ecode per NOTE below
 

NOTE: If issuing from a Downtime Issue Log: Use the following format to manually enter the component type: =<Ecode (examples: =<E0379V00, =<E7002200, =<E0379VB0)</td></tr>
<tr><td>11</td><td>Click <Continue></td></tr>
<tr><td>12</td><td>Inspect the blood component for the following:
• Expiration date has not passed
• Correct labeling
• Intact container
• No clots, turbidity, hemolysis or other abnormal appearance of the component (See SOP: Visual Inspection of Blood Products)
<table>
<tr><th>If the visual inspection</th><th>Then</th></tr>
<tr><td>Passes</td><td>• Result the visual inspection by selecting the Pass All key
• Go to the next step</td></tr>
<tr><td>Fails</td><td>• Select the Inspect Unit key
• Answer the "Visual inspection ok?" by selecting the No
• Enter the "Reason for failure" code
• Add any further explanation in the free text area if required
• Select "Quarantine" for the new status
• Click <OK>
NOTE: Any units failing the visual inspection should be quarantined according to SOP: Quarantine of Blood and Blood Components.
DO NOT issue unless the component passes the visual inspection
NOTE to SCCA: Call TSL for unit reassignment</td></tr>
</table></td></tr>
<tr><td>13</td><td>Verify the following information agrees</td></tr>
</table>

<table>
<tr><th>STEP</th><th>ACTION</th></tr>
<tr><td></td><td>
<table>
<tr><th>BPRF</th><th>Sunquest</th><th>Transfusion Record</th><th>Blood Component (ISBT) Label</th></tr>
<tr><td>Name & MR #</td><td>Name & MR #</td><td>Name & MR #</td><td></td></tr>
<tr><td></td><td>Recipient Type</td><td>Recipient Type</td><td></td></tr>
<tr><td></td><td>Donor Blood Type</td><td>Donor Blood Type</td><td>Donor Blood Type</td></tr>
<tr><td></td><td>Unit Number/Div.</td><td>Unit Number/Div.</td><td>Unit Number/Div.</td></tr>
<tr><td></td><td>Unit Expiration</td><td>Unit Expiration</td><td>Unit Expiration</td></tr>
<tr><td>Component Type</td><td></td><td>Component Type</td><td>Component Type</td></tr>
</table>
</td></tr>
<tr><td>14</td><td>
<table>
<tr><th>If there are</th><th>Then</th></tr>
<tr><td>Discrepancies</td><td>Resolve any discrepancies before proceeding with issue</td></tr>
<tr><td>No Discrepancies</td><td>Go to the next step</td></tr>
</table>
</td></tr>
<tr><td>15</td><td>Complete issue in Sunquest or use a manual Downtime Issue Log if Sunquest is not available

Click <Continue>
Tab to accept the default for issue date and time or update if not issuing in real time
Verify the patient location matches the requested delivery location, or enter the correct location (Search may be used to locate the correct location)

<table>
<tr><th>If issuing by</th><th>Then enter in the ‘Issue to” field</th></tr>
<tr><td>Pneumatic tube system</td><td>PTS</td></tr>
<tr><td>Transporter</td><td>Scan the blood transporters badge or enter their first and last name</td></tr>
<tr><td>Portable refrigerator</td><td>Enter the portable refrigerator tracking number</td></tr>
</table>
NOTE: If products are issued on the DT Issue Log, entry into Sunquest should be performed as soon as feasible.</td></tr>
<tr><td>16</td><td>
<table>
<tr><th>If a QA Failure</th><th>Then</th></tr>
<tr><td>Does NOT occur</td><td>Go to next step</td></tr>
<tr><td>Occurs</td><td>Refer the issue to an MLS prior to issue. If the issue cannot be corrected and the product is acceptable for issue, one of the following will occur:
<table>
<tr><th>If</th><th>Then</th></tr>
<tr><td>MLS is available on site</td><td>MLS issues the blood components. Refer to SOP Sunquest: QA Warnings & Overrides</td></tr>
</table>
</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>STEP</th><th>ACTION</th></tr>
<tr><td></td><td>
<table>
<tr><td></td><td>MLS is not available on site</td><td>Staff issues the blood component on the Downtime Issue Log and the form is downtime faxed or tubed to the 6th floor TSL for completion in Sunquest</td></tr>
</table>
</td></tr>
<tr><td>17</td><td>• Click <Save> and the “Add Billing” window will open
• Click <Cancel></td></tr>
<tr><td>18</td><td>Give the unit and transfusion record to a second staff member to perform a clerical check of the unit label and transfusion record and comparing the following:
<table>
<tr><th>Blood Component Label</th><th>Transfusion Record</th></tr>
<tr><td>Donor ABO/Rh</td><td>Donor ABORH</td></tr>
<tr><td>Unit Number/Div.</td><td>Unit Number/Div.</td></tr>
<tr><td>Unit Expiration</td><td>Unit Expiration</td></tr>
<tr><td>Component Type</td><td>Component Type</td></tr>
<tr><td>NA</td><td>Crossmatch Interp.</td></tr>
</table>
NOTE: If a second staff member is not available the issue staff member will perform and document the clerical check.</td></tr>
<tr><td>19</td><td>
<table>
<tr><th>If 2nd check is</th><th>Then 2nd tech</th></tr>
<tr><td>Acceptable</td><td>Initials the Transfusion Record</td></tr>
<tr><td>Not acceptable</td><td>Notifies the issue staff member of any discrepancies</td></tr>
</table>
</td></tr>
</table>

Transporting Blood Component(s)

<table>
<tr><th>STEP</th><th>ACTION</th></tr>
<tr><td>1</td><td>
<table>
<tr><th>If</th><th>Then</th></tr>
<tr><td>Not issuing in blood refrigerator</td><td>• Place the blood components with Transfusion Records in a sealed biohazard bag
• Go to next step</td></tr>
<tr><td>Issuing in a blood refrigerator</td><td>• Verify the temperature of the refrigerator is between 1 and 6°C prior to loading
• Place RBC or plasma component inside the refrigerator
• Go to next step
•</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>STEP</th><th>ACTION</th></tr>
<tr><td>2</td><td>
<table>
<tr><th>If transporting via</th><th>Then</th></tr>
<tr><td>Pneumatic tube system</td><td>
• Call the contact on the BPRF and let them know the blood is being sent
• Send the BPRF with the blood components
<table>
<tr><th>If sending to</th><th>Then 2nd tech</th></tr>
<tr><td>• Main OR
• Pavilion OR
• Interventional Radiation (IR)
• Cath Lab
• Emergency Room</td><td>Refer to Appendix A for approved stations</td></tr>
<tr><td>All other location</td><td>Send to station listed on the BPRF</td></tr>
</table>
• Send to the pneumatic tube station location indicated on the BPRF - refer to Appendix A for operating room, procedure area and emergency room pneumatic tube station

NOTE: If BPRF not returned, contact the patient care area to verify the units were delivered as expected and request immediate return of the signed BPRF
</td></tr>
<tr><td>Transporter</td><td>• Have the transporter sign the BPRF and keep the signed form in the lab</td></tr>
<tr><td>TSL staff</td><td>• Deliver blood components
• Have the BPRF signed by person receiving blood</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>File the returned BPRF in the appropriate location in the department</td></tr>
</table>

PROCEDURE NOTES/LIMITATIONS

- In some situations, it may be desirable to weigh the unit of blood to get a more accurate volume, which can be documented on the Transfusion Record in the donor volume field
- Blood Product Issue may be accessed directly from BOP by selecting Issue or Emergency at the "Continue to Blood Product Issue?" Prompt.

REFERENCES:

- Technical Manual. Bethesda, MD; AABB, current edition
- Standards for Blood Banks and Transfusion Services. Bethesda, MD; AABB, current edition

RELATED DOCUMENTS:

FORM Blood Product Release (BPRF)
FORM Transfusion Record
FORM Downtime Issue Log
SOP Visual Inspection of Blood Components
SOP Quarantine of Blood and Blood Components
SOP Sunquest: QA Warnings & Overrides

UWMC SOP Approval:		
Chief of Clinical Services (CLIA Medical Director)	_____ Mark H. Wener, MD	Date _____
Transfusion Service Manager	_____ Nina Sen	Date _____
Transfusion Service Compliance Analyst	_____ Christine Clark	Date _____
Transfusion Service Medical Director	_____ Monica B Pagano, MD	Date _____
UWMC Biennial Review:		
	_____	Date _____
	_____	Date _____

SCCA SOP Approval:		
SCCA CLIA Medical Director	_____ Brent L. Wood, MD	Date _____
Director, Transfusion Services	_____ Terry Gernsheimer, MD	Date _____
Alliance Lab Manager	_____ Jennifer Kyle-Stokes	Date _____

REVISION HISTORY:
04/22/2018: As part of the Sunquest 8.1 upgrade, programming was changed to require scanning or manually entering the unit number when issuing a component. This applies only at UWMC locations but not HMC.

03/27/2021: Updating for implementation of EPIC. Added general policies and appendix with standard operating room blood delivery pneumatic tube stations. Revised steps in section Transporting Blood Component(s).

APPENDIX:

Appendix A: Approved Pneumatic Tube Stations for Blood Delivery

Clinical Area	Pneumatic Tube Station
Main OR	224
Pavilion OR	824
Interventional Radiology (IR)	921
Cath Lab	323
Emergency Room (ED)	620

- *Copy of appendix attached to Pneumatic Tube Station in NN601 and BB2*
- *List is not inclusive of all inpatient areas*