University of Washington Medical Center 1959 NE Pacific Street. Seattle, WA 98195 Transfusion Services Laboratory Policies and Procedures Manual	Original Effective Date: 03-27-2021 Revision Effective Date: 03-27-2021	Number: PC-0098.01

TITLE: Packing and Shipping Blood Components from Montlake

PURPOSE:
To specify the process to pack and ship blood components between inventory locations outside of University of Washington Medical Center (UWMC). This does not include transfer of blood components between the 6th floor and 2nd floor UWMC locations

LOCATION:
Montlake Transfusion Service Laboratory (TSL)

PRINCIPLE & CLINICAL SIGNIFICANCE:
Principle
When shipping to areas outside the facility, blood components must be packed in a manner such that required shipping temperatures are maintained

Clinical Significance
Blood components not shipped at the proper temperatures are at increased risk for bacterial contamination, hemolysis and other deleterious effects or may otherwise not function as expected and should be discarded to protect the potential recipient

POLICIES:
Validated blood component shipping containers supplied by Bloodworks Northwest (BWNW) or American Red Cross will be used for transport between UWMC TSL, Northwest (NW) and SCCA

REAGENTS/SUPPLIES/EQUIPMENT:

Reagents:	Supplies:	Equipment:

NA	• Absorbent Material
	• Plastic Liners
	• Coolants depending on components:
	  ○ Wet ice
	  ○ Frozen coolant packs
	  ○ Gel packs wrapped in bubble wrap stored at 20-24ºC
		Shipping Container

QUALITY CONTROL:
Shipping conditions will be monitored routinely upon component receipt and shipment

INSTRUCTIONS:

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Verifying Component Is Correct Prior to Packing

<table>
<tr><th>STEP</th><th>ACTION</th></tr>
<tr><td>1</td><td>
<table>
<tr><th>If Component is</th><th>Then</th></tr>
<tr><td>Allocated</td><td>Go to next step</td></tr>
<tr><td>Not allocated</td><td>Go to step 5</td></tr>
</table>
</td></tr>
<tr><td>2</td><td>• Verify patient test interpretation and BAD file ABO/Rh are acceptable
• Resolve any discrepancies prior to shipping component</td></tr>
<tr><td>3</td><td>• Verify the blood component meets all patient transfusion requirements
○ Blood component ABO/Rh is compatible with the patient's ABO/Rh requirements in SQ
○ Blood component type matches the component ordered (attributes, special requirements and component type (i.e. irradiated or pathogen reduced for red cells and platelets;
○ Blood component matches patient requirements in SQ BAD file (Antigen/Antibody, attributes, special requirements and other comments)
• Resolve any discrepancies prior to shipping component</td></tr>
<tr><td>4</td><td>Verify the following information agrees
<table>
<tr><th>Transfusion Record</th><th>Blood Component (ISBT) Label</th></tr>
<tr><td>Name & MR #</td><td></td></tr>
<tr><td>Recipient Type</td><td></td></tr>
<tr><td>Donor Blood Type</td><td>Donor Blood Type</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>
</table>
</td></tr>
<tr><td>5</td><td>Verify the blood component is
• Irradiated or pathogen reduced for red cells and platelets
• Correct type of platelet (PAS or non-PAS)
○ Blood component is labeled correctly with attributes and such as irradiation, volume reduction or washing as applicable Irradiated or pathogen reduced for red cells and platelets
• Expiration date is correct and not expiring before appointment
• Resolve any discrepancies prior to shipping component</td></tr>
</table>

STEP	ACTION
6	Document the above verification is complete by writing the following on the Blood component transport list (BBR9) report • Tech ID • Date and Time **IMPORTANT**: Blood components must be placed "In-Transit" status and the report printed per section "Printing the Blood Component Transport List – BBR9" before completing this step
7	Go to next section to move components to "In-Transit" status

Updating Blood Components to "In-Transit" Status in Sunquest

STEP	ACTION
1	Open SQ (Sunquest) function "Blood Status Update"
2	Select < *In-Transit*> from the drop-down menu in the "Update Option" field
3	Scan the unit number(s) and component code(s) of the component(s) to be transferred in the Unit # and Component fields **NOTE**: The component code should be scanned to ensure the correct component type is listed, even if it prepopulates upon scanning the unit number
4	Click <Submit> after scanning all components
5	Tab through the date and time to enter the current date/ time, or manually enter the correct date/time, if necessary
6	Choose the appropriate "Destination" code and enter in the "Destination" field

If shipping to	Then choose Code
UWMC TSL	BB
SCCA Alliance Lab TSS	SA1
Harborview TSL	HTSL
Northwest TSS	NWBB
UWMC 2nd Floor OR	**DO NOT USE** this process (Blood Status Update) go to SOP *Transferring Components Between UWMC Inventory Locations*

7	Press <Tab> (the Visual Inspection field will appear)
8	Perform a **visual inspection** and document the results in the visual inspection field (refer to SOP: *Visual Inspection of Blood Components*)

If the inspection	Then select the following
Passes for all component	☐ Yes

STEP	ACTION
	Fails for any component: ☐ No • Select Pass or Fail from the dropdown box in the VI (visual inspection) field for each unit • Click < OK> on the pop-up message" Visual Inspection Failure – Status Change Required unit will not be shipped to this destination" • Enter the appropriate Reason code for the failure • Click <Continue>. Refer to SOP: *Quarantine and Final Disposition of Blood Components, Appendix A*) • Enter a comment regarding the problem identified **NOTE:** Components failing visual inspection must be packed and shipped separate from acceptable components and will not print on the BBR9
9	• Click <Continue> • Click <9. Unit Location> to open the "Location Update" dialog box
10	Select the correct inventory destination
11	Click <OK>, <Continue> and <Save> at the bottom of the screen to complete the transfer
12	Go to next section

Printing the Blood Component Transport List – BBR9

STEP	ACTION	
1	**If location is**	**Then log into**
	UWMC	"SmarTerm"
	SCCA	Sunquest roll and scroll application
2	Enter "BBR" at the function prompt	
3	Enter the desired Sunquest printer number for the report to print	
4	• Press <Enter> to return past the "Use of Host" prompt • Enter "9" at the prompt "?" on the Select Option screen to select the *Ship Out List* report	
5	Enter the starting unit location in the "HOSPITAL ID" or select all option by pressing <Enter>	
	If start location is	**Enter**
	UWMC, SCCA or NW	U
	HMC	H
6	• Press <Enter> at the Area prompt • Enter <A> to accept the entries	
7	Enter <Y> at "SEPARATE REPORT BY HOSPITAL/AREA?" if prompted	

<table>
<tr><th>STEP</th><th>ACTION</th></tr>
<tr><td>8</td><td>Enter the “Start Date” and “End Date” (Enter T to default today)</td></tr>
<tr><td>9</td><td>Enter the “Start Time” and “End Time” (Enter T to default today)

NOTE: Start and end time should be narrow enough to exclude other shipment, but broad enough to include the shipment being processed. Use of 15-minute intervals is suggested. It is generally sufficient to answer the start and end time of the shipment window as T unless multiple shipments have occurred in the same time period and it is desired to isolate the individual shipment.</td></tr>
<tr><td>10</td><td>Enter the Destination
<table>
<tr><th>Destination</th><th>Enter</th></tr>
<tr><td>SCCA</td><td>SA1</td></tr>
<tr><td>UWMC-TSL</td><td>BB</td></tr>
<tr><td>HMC- TSL</td><td>HTSL</td></tr>
</table></td></tr>
<tr><td>11</td><td>Enter the Component Type/Group
<table>
<tr><th>Component group</th><th>Enter</th></tr>
<tr><td>RBC (includes granulocytes)</td><td>RBCG</td></tr>
<tr><td>Platelets</td><td>PLG</td></tr>
<tr><td>Plasma</td><td>PLSG</td></tr>
<tr><td>Cryoprecipitate</td><td>CRYG</td></tr>
</table></td></tr>
<tr><td>12</td><td>Enter “IT” at the “Print status SO, IT or <Both>?”</td></tr>
<tr><td>13</td><td>Enter <A> to accept the entries</td></tr>
<tr><td>14</td><td>Retrieve the report from the printer and verify that the list matches the components being shipped

NOTE: Resolve any discrepancies before shipping. It may be necessary to rerun the report and adjust the report parameters accordingly to verify all of the components were placed into transit as intended.</td></tr>
<tr><td>15</td><td>Close SmarTerm</td></tr>
<tr><td>16</td><td>Document completion of section “Verifying Component Is Correct Prior to Shipping” writing the following on the report
• Tech ID
• Date and Time

NOTE: Refer to Step 6 section “Verifying Component Is Correct Prior to Shipping”</td></tr>
<tr><td>17</td><td>Make a photocopy of the report:
• File the original in the appropriate location
• Sent the copy with the shipment per section “Packing Blood Components for Shipment”</td></tr>
<tr><td>18</td><td>Go to section “Packing Blood Components for Shipment”</td></tr>
</table>

Receiving Blood Component Transferred from Another UWMC Facility

<table>
<tr><th>STEP</th><th>ACTION</th></tr>
<tr><td>1</td><td>Review the packing list (BBR9) against the shipment to ensure all components are accounted for

NOTE: Any discrepancies must be resolved by contacting the facility where the shipment originated</td></tr>
<tr><td>2</td><td>Open SQ function “Blood Status Update”</td></tr>
<tr><td>3</td><td>Select < In-Transit to Inventory> from the drop-down menu in the “Update Option” field</td></tr>
<tr><td>4</td><td>Scan the unit number and component code of the component to be received in the “Unit #” and Component fields</td></tr>
<tr><td>5</td><td>Tab through the date and time to enter the current date/ time, or manually enter the correct date/time if necessary</td></tr>
<tr><td>6</td><td>• Press <Tab> to enter” INV ~Inventory” as the default in the “New status” field
• Press <Tab> again and a "Temperature field” will open – do not enter temperature data

NOTE: Do not enter temperature data in this field. Sunquest does not have logic to alert the user if the temperature is out of range. If there are concerns regarding product transport conditions, refer to SOP: Quarantine and Final Disposition of Blood Components.</td></tr>
<tr><td>7</td><td>Press Tab and the “Pass visual inspection ☐Yes ☐No” will appear</td></tr>
<tr><td>8</td><td>Perform a visual inspection and document the results of the inspection (refer to SOP Visual Inspection of Blood Components)
<table>
<tr><th>If the inspection</th><th>Select the following for</th></tr>
<tr><td>Passes</td><td>☐ Yes</td></tr>
<tr><td>Fails</td><td>☐ No
Document the reason for failure and quarantine the component (refer to SOP Quarantine and Final Disposition of Blood Components: Appendix A Quarantine and Discard Reason Codes)</td></tr>
</table></td></tr>
<tr><td>9</td><td>• Click <9. Unit Location>
• Verify the components are listed in the correct inventory destination
• Click <OK></td></tr>
<tr><td>10</td><td>Click <Save> at the bottom of the screen to complete the transfer</td></tr>
<tr><td>11</td><td>
<table>
<tr><th>If</th><th>Then</th></tr>
<tr><td>Unit is allocated with transfusion tag attached</td><td>• Select the new status of the unit in the Reallocation of Unit section
• Allocated- Remains allocated to the patient
• Released- Unit will not be allocated to the patient
• Click Save
NOTE: if incorrect unit status is chosen, notify UWMC TSL immediately</td></tr>
</table></td></tr>
</table>

STEP	ACTION	
	Unit is not allocated	Go to next step
12	Repeat steps 4-11 for each additional unit	

Packing Blood Components for Shipment

STEP	ACTION
1	Select the appropriate shipping container based on the number of components and required shipping temperature (refer to Appendix A: Packing Job Aid)
2	Place absorbent material in the bottom of the container and then place plastic liner inside the shipping container
3	Insert blood components into the plastic liner and fold the liner over the units
4	**If shipping temperature is** / **Then** Refrigerated (1-6ºC) / Place bagged wet ice on top of the units, distributing the ice evenly on top of the units Room Temperature (20-24ºC) / Place wrapped gel temperature stabilizer packs on top of the units, distributing the packs evenly on top of the units Refer to Appendix A: Packing Job Aid for amount of coolant
5	Replace foam insert or Styrofoam lid depending on the type of container
6	• Place the Blood Component Transport List – BBR9 on top of the foam insert • Close the lid and seal if necessary
7	Attach the label to the box indicating the appropriate shipment destination

PROCEDURE NOTES/LIMITATIONS

- For autologous or other rare or difficult to replace units, it may be necessary to preserve units that have been exposed to temperatures outside of the acceptable range. In these circumstances, the medical director approval is required. Approval and reason for deviation to the SOP must be documented.

- The same packing processes may also be used during emergency storage events when alternative equipment storage unit is not available. Refer to SOP: Blood Storage and Inventory Management

REFERENCES:

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

RELATED DOCUMENTS:

SOP Visual Inspection of Blood Components
SOP Emergency Storage Events
SOP Changing Blood Location in Sunquest

APPENDIX:

Appendix A: Packing Job Aid

Product	Shipping Temperature	# of Components	Shipping Container	Coolant	Storage Limit
RBC/ Thawed Plasma	1-10°C	1-18	Medium	Approx. 10 lbs. wet ice (4 scoops)	24 hours
Platelets Apheresis/ Pooled Platelets	20-24°C	10	Endotherm	4 gel pack*	20 hours
Thawed Pooled Cryoprecipitate	20-24°C	1			
Granulocytes	20-24°C	1			

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 Pagano, MD	Date	
UWMC Biennial Review:			
		Date	
		Date	

03/27/2021: Replacing SOP Packing and Shipping Blood Components PC-0014.03 for components shipped from Montlake