

## Shipping and Packing Blood Products At Mobile Drives

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**Purpose** This procedure provides instructions for the packing, storing and shipping of Whole Blood (including whole blood units collected with the Integral Whole Blood Filter set) and Platelet Pheresis components when they are collected at mobile collection sites.

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- Policy**
- Whole Blood collected at a satellite drawing site must be placed, as soon as possible, into a temporary storage environment having sufficient cooling capacity to lower the temperature of the blood toward a range of 1°C – 10°C.
  - Whole Blood collected with the Integral Whole Blood Filter (Integral Sepacell filter) set must be shipped at room temperature.
    - Units shipped at room temperature must be filtered within 8 hours of collection.
  - Platelet Pheresis components collected at a satellite drawing site must be placed, as soon as possible, into a temporary storage environment having sufficient cooling capacity to maintain the temperature of the platelet pheresis components as close as possible to 20-24°C.
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**Equipment and Reagents** Validated shipping containers  
Protective bags  
Crushed/Cubed Ice or validated temperature stabilizers  
Absorbent towel-if desired  
Mobile Units Tracking Record

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## Shipping and Packing Blood Products At Mobile Drives, Continued

**Procedure:**

**Follow the steps below preparing the Mobile Units Tracking Record...**

**Beginning of drive**

Step	Action
<b>Preparation of the Mobile Units Tracking Record</b>	
1.	Date and Initial the Mobile Units Tracking Record form – Starting line at the beginning of the drive. <ul style="list-style-type: none"> <li>• If there are multiple shipments associated with the drive, complete a form for each of the separate shipments.</li> </ul>
2.	Complete the starting # for that shipment. <ul style="list-style-type: none"> <li>○ Use appropriate column (whole blood or platelet) for the product being shipped.</li> <li>○ Use either the DIN label or write the DIN.</li> </ul>

**End of drive**

Step	Action
1.	Date and Initial the Mobile Units Tracking Record form – Ending line at the end of the drive. <ul style="list-style-type: none"> <li>○ If there are multiple shipments associated with the drive, complete the form for each of the separate shipments.</li> </ul>
2.	Complete the ending # of the shipment. <ul style="list-style-type: none"> <li>○ Use appropriate column (whole blood or platelets) for the units being shipped.</li> <li>○ Use either the DIN label or write the DIN</li> </ul>
3.	Complete the Exceptions and Comments section, if needed.
4.	The Mobile Units Tracking Record <u>may</u> be inserted in protective bag and placed in shipping container.

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## Shipping and Packing Blood Products At Mobile Drives, Continued

**Procedure**

**Whole Blood  
 Units (not for  
 Leukoreduction)**

<b>Follow the steps below for the preparations of boxes and storage during mobile operations...</b>	
<b>STEP</b>	<b>Action</b>
1.	<p>Fill protective bags with crushed/cubed ice (ice bags) appropriate to the anticipated collection. A validated alternative coolant may be used in place of ice.</p> <p><u>Note:</u> If using ice, the goal is to have approximately 2 inches of ice spread between each layer and on top of the Whole Blood collected at a mobile. Ensure that there is an insulation barrier between the ice or coolant and the blood bags, i.e. never put the ice directly on the blood bags.</p>
2.	<p>Place the ice bags or coolant in shipping container to be shipped to the mobile site, or make arrangements to have the ice available at the mobile site, before the blood draws occur.</p> <p><u>Note:</u> The entire inside of the container can be lined with a large plastic bag or other barrier to prevent leaking of the ice or containment of a broken component. This is optional.</p>
3.	Cover ice bags/coolant with absorbent towel if desired.
4.	Keep lid on the shipping containers closed during the mobile, except when loading blood.
5.	On the Mobile Units Tracking Form in the "Time first units in the container" column, record the time the first unit was placed in the container. Initial in the "initials" column.

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## Shipping and Packing Blood Products At Mobile Drives, Continued

**Procedure**

**Follow the steps below for the preparations of boxes and storage during mobile operations...**

STEP	Action
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**Whole Blood Units (not for Leukoreduction), cont'd**

6.	Continue to load the validated shipping container with whole blood units. <ul style="list-style-type: none"> <li>• If shipping with Ice:                             <ul style="list-style-type: none"> <li>• Arrange units evenly (in a single layer) on the bottom of the shipping container, or according to the design of the container.</li> <li>• Arrange approximately 2 inches of ice on the top of each blood layer as units are added to the container</li> </ul> </li> <li>• If using an alternate validated coolant, follow the set up for the specific coolant, ie coolant at the bottom, in between layers and on top of the units.</li> <li>• Ensure that the blood units have the extra bags or insulating material placed on either side (top and bottom) of the bag, so they act as a buffer between the blood bag and the ice bag.</li> <li>• The box/rack containing the tubes, and the DHQs placed in a protective bag <u>may</u> be placed inside the shipping container and transported with the whole blood.</li> </ul>
7.	Close the lid and transport the units, specimens, and the DHQs back to the Blood Donor Center.  NOTE: Specimen and DHQs may be transported with the last box of the day.

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## Shipping and Packing Blood Products At Mobile Drives, Continued

**Procedure**

Follow the steps below to pack and ship whole blood with the integral filter (for Leukoreduced RBC) using the validated room temperature coolant container.

**Whole Blood  
 for  
 Leukoreduced  
 RBCs**

Step	Action
1	Validated room temperature coolants are shipped to the blood mobile with the validated container prior to or during the mobile drive.  Note: For Thermasure coolants, see - Packing and Shipping Platelet Components
2	Place one layer of coolants flat on the bottom of the validated container.
3	Lay Whole Blood units face up or face down directly on top of the coolants.
4	Place a second layer of coolants on top of these blood units
5	Place additional layers of blood units as needed. Continue layering until the container is full, ending with coolants on top  Note: Most effective cooling is achieved when coolants are in direct contact with blood units.
6	Close container lid and secure with tape, strap or device that will ensure the top will remain closed during transport.  <u>Note:</u> Tubes sent to the donor center from the mobile may be sent on ice or at room temperature, not to exceed the time out of refrigeration recommended by the testing facility.
7	Transport as soon as possible since the Whole Blood with the filters attached must be filtered within 8 hours when at room temperature (or cooling down to room temperature).

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## Shipping and Packing Blood Products At Mobile Drives, Continued

<b>Procedure</b>	<b>Follow the steps below for the preparations of boxes, and storage for platelet pheresis collections at mobile operations</b>	
	<b>Platelets</b>	
	<b>STEP</b>	<b>Action</b>
	1.	Place validated coolant in the shipping container to be shipped from the mobile site.  <b>Note:</b> The entire inside of the container can be lined with a large plastic bag or other barrier for containment of a broken or leaking component or stabilizer. This is optional.  <ul style="list-style-type: none"> <li>Note: For Thermoasure coolants, refer to Packing and Shipping Platelet components.</li> </ul>
	2	Keep lid on the shipping containers closed during the mobile operation, except when loading components.
	3	On the Mobile Units Tracking Record in the “Time first units in the container” column, record the time the first unit was placed in the container. Initial in the “initials” column.
	4	Continue to load the validated shipping container with Pheresis units. <ul style="list-style-type: none"> <li>When more than one Platelet Pheresis is to be shipped, arrange validated coolant so that at least one coolant pack is on the bottom of the validated container and at least one is on top (or follow the process for the specific coolant). If using the polar pack 48, it must be touching each of the Platelet Pheresis components on one side.</li> <li>Charts and DHQ placed in a protective bag may be placed inside the shipping container.</li> </ul> <b>Note:</b> Tubes sent to the donor center from the mobile may be sent on ice or at room temperature, not to exceed the time out of refrigeration recommended by the testing facility.
	6.	Close the lid and transport the units, specimens, and the charts back to the Blood Donor Center.

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## Shipping and Packing Blood Products At Mobile Drives, Continued

**Whole Blood  
 Units (not  
 Whole Blood  
 for leuko-  
 reduction  
 RBC)**

Follow the steps below for the receipt of the Shipping Container at the Donor Center...					
Step	Action				
1.	<p>Date and Initial the Mobile Unit Tracking Record form when the shipping container is opened.</p> <ul style="list-style-type: none"> <li>Inspect the container.</li> <li>Determine if ice is still present in the container.</li> </ul> <table border="1" data-bbox="646 758 1344 1281"> <thead> <tr> <th>If</th> <th>Then</th> </tr> </thead> <tbody> <tr> <td>Ice is present or coolant is still cool.</td> <td> <p>Check Yes,</p> <ul style="list-style-type: none"> <li>Unpack the box placing blood and tubes in the refrigerator.</li> <li>Record on the Mobile Unit Tracking Record the time the units were removed from the container in the "Time removed from the container" column.</li> <li>Units must be removed from the container within 18 hours of the time the units were first placed in the container (time the containers were validated to hold temperature)</li> </ul> </td> </tr> </tbody> </table>	If	Then	Ice is present or coolant is still cool.	<p>Check Yes,</p> <ul style="list-style-type: none"> <li>Unpack the box placing blood and tubes in the refrigerator.</li> <li>Record on the Mobile Unit Tracking Record the time the units were removed from the container in the "Time removed from the container" column.</li> <li>Units must be removed from the container within 18 hours of the time the units were first placed in the container (time the containers were validated to hold temperature)</li> </ul>
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## Shipping and Packing Blood Products At Mobile Drives, Continued

Follow the steps below for the receipt of the Shipping Container at the Donor Center...

Step	Action
<b>Platelets and Whole Blood for Leuko-reduction Cont'd</b>	2. Record any discrepancy in shipping conditions that may affect product acceptability- time, broken components, missing records, etc. in the Exceptions box.
	3. Record all information you may consider helpful for investigation of acceptance/rejection of the shipment.
	4. Quarantine any questionable unit in a clearly designated area of the refrigerator or platelet incubator. Record reason in the Comments section of the form

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**Controlled Documents**

<b>Form</b>
Mobile Units Tracking Record

**Uncontrolled Documents**

<ol style="list-style-type: none"> <li>1. FDA 21 CFR Parts 640.25-640.4. Biological Products: Additional Standards for Human Blood and Blood Products. US Government Printing Office. Washington, DC. 2000</li> <li>2. Menitove J. E., Standards for Blood Banks and Transfusion Services, 26<sup>th</sup> Ed. American Association of Blood Banks. Bethesda, MD. 2009</li> <li>3. Blood Component Preparation, Storage, Shipping, and Transportation, The Technical Manual, 17<sup>th</sup> Ed. Bethesda, MD: American Association of Blood Banks.</li> <li>4. Standards for Blood banks and Transfusion services, 28<sup>th</sup> edition aaBB.</li> </ol>
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## Shipping and Packing Blood Products At Mobile Drives, Continued

**Distribution** All SCPMG Blood Donor Centers

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Reviewed and approved by:

September 10, 2001

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## Shipping and Packing Blood Products At Mobile Drives, Continued

DOCUMENT HISTORY PAGE  
 Effective Date: September 13, 2001

Change type: new, major, minor etc.	Changes Made to Document – Describe	Signature responsible person/Date	Med. Dir. Reviewe d/ Date	Date change Imp.
New				
Minor V.01	<ol style="list-style-type: none"> <li>1. Added procedure for packing, shipping and receipt of platelets</li> <li>2. Modified order of procedure to reflect filling out mobile units tracking record form before packing units.</li> <li>3. Changed Imperial to Orchard Donor Center</li> <li>4. Added authors</li> <li>5. Included acceptable use of ice alternative for shipping Whole Blood</li> <li>6. Updated policy to reflect acceptable temperature range to 1-10°C</li> <li>7. Added acceptable range for platelets to arrive at DC.</li> </ol>	Ginny Tyler Nov. 17, 2010		
Minor V. 0.2	<ol style="list-style-type: none"> <li>1. Shortened title</li> <li>2. Reformatted</li> <li>3. Clarified forms for multiple shipments</li> <li>4. Allow the container to have a plastic liner</li> </ol>	Ginny Tyler 01/27/2012	N.A.	N.A.

IMP = Implemented

<b>MasterControl History of Change:</b>		
Change type: new, major, minor etc.	Version #	Description of Change
	4	<ul style="list-style-type: none"> <li>• Added packing and shipping RBCs for leukoreduction. Allowed for coolants other than ThermaSure.</li> <li>• Allowed tubes to be shipped at room temperature.</li> </ul>

## **Shipping and Packing Blood Products At Mobile Drives,** Continued

