Transporting Blood Products

**Introduction**
The following describes the proper conditions for packing and transporting blood and blood components for transfer or return.

**Basic Standards**
Specific guidance on packing on transport is meant, at a minimum, to preserve acceptable conditions for transfusable products. For example:

- Red blood cells must maintain a temperature of 1 - 6º C during storage and 1 - 10º C while in transit.
- Frozen products should not be thawed and refrozen.
- No alterations should be made to the original container label.
- The unit seal has not been broken or altered.
- Hospitals must have a written policy in place to ensure proper handling of products during storage, as well as in transit.
- Visual inspection is performed.
- Only validated shipping containers are to be used for transport.

**Blood Product Inspection**
Prior to shipment of blood products, an inspection should be done to assure that the labels and appearances of the components are adequate for release and subsequent transfusion.

**Additive Red Cells:** To observe this component, adequate light is needed to observe the cell-plasma interface. The plasma should be observed for cloudiness and abnormal color especially near the interface. The segment interface is acceptable to observe.

**Abnormal Appearance:**

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Icteric</td>
<td>Darker than normal pale yellow-tan</td>
</tr>
<tr>
<td></td>
<td>Quarantine for supervisory personnel</td>
</tr>
<tr>
<td>Pink to red plasma</td>
<td>May be due to hemolysis or bacterial growth. Quarantine for supervisory</td>
</tr>
<tr>
<td></td>
<td>personnel.</td>
</tr>
<tr>
<td>Lipemic</td>
<td>No harm to patient. Destroy lipemic plasma or platelets.</td>
</tr>
<tr>
<td>Cloudy and pale green</td>
<td>May be due to bacterial growth. Quarantine for supervisory</td>
</tr>
<tr>
<td></td>
<td>personnel.</td>
</tr>
<tr>
<td>Pale green</td>
<td>Female donors may have pale green</td>
</tr>
<tr>
<td></td>
<td>plasma due to birth control pills but it is not cloudy. These components are</td>
</tr>
<tr>
<td></td>
<td>acceptable.</td>
</tr>
<tr>
<td>Clots</td>
<td>Components with visible clots will be quarantined for supervisory personnel.</td>
</tr>
</tbody>
</table>

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**Fresh Frozen Plasma/Cryoprecipitate:** Breakage of the component bag is to be observed and if broken, cannot be shipped. Other abnormal appearances are causes not to ship the component. Blood components that look abnormal must not be shipped. See Abnormal Appearance table above. Any components that are broken or have abnormal appearances that cause them not to be shipped will be discarded using the discard procedure.

**Platelets:** See abnormal appearance noted on the Abnormal Appearance table for causes not to ship the product.
- Observe the bag for excessive air in the bag. Discard component if detected using discard procedure.
- Observe the platelet for small clots or clumps. If there are any detected, consult supervisory personnel.
- Observe the bag for grossly bloody (greater than 2% hematocrit) appearance. Discard if present using the discard procedure.

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**Re-Issue Inspection Requirements**

Any blood or blood product that is returned to LifeServe Blood Center must be re-inspected before reissue. Products can only be reissued if the container:
- Has not been penetrated
- Temperature of the product has been monitored during transport and is acceptable.
- Maintained at the proper storage temperature.
- At least two segments must be attached to the packed cell.
- Packed cell unit must be settled enough to allow re-inspection.

**Transport Specifications**

Transport of blood and blood components requires the use of a validated shipping container. LifeServe Blood Center has validated specific shipping containers which are provided.

When using LifeServe-provided shipping containers, instruction should be followed explicitly to ensure blood products can be transfused safely. Refer to the jobaid provided with the box for packing instructions.

Refer also to **LS-POLICY-5036, Shipping Container Policy** for additional information.
Quality Control

To check the temperature of a product:

<table>
<thead>
<tr>
<th>If</th>
<th>Then</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than one unit was shipped</td>
<td>Place a thermometer between two units</td>
</tr>
<tr>
<td>Only one unit was sent</td>
<td>Wrap the unit around the thermometer</td>
</tr>
</tbody>
</table>

LS-FORM-5819, “Return Units / Transfer Form” must be completed by the tech that inspected the units and ensured the correct packing and temperature when returning products.

Transfer Information

When products must be shipped between hospitals without first being returned to LifeServe Blood Center:

- They must be packed according to the Transport Specifications.
- **LS-FORM-5819, “Return Units / Transfer Units Form”** form must be initiated by the shipping facility and completed by the receiving facility.
- After the transfer, send or fax a copy of **LS-FORM-5819** to LifeServe Blood Center at: **515-288-4683**.
- When product has been administered en route to the receiving facility, the shipping facility is responsible for the product that was transfused.
- If the receiving facility is not serviced by LifeServe Blood Center, let LifeServe Blood Center know of the destination so proper billing can take place.

**Note:** It is not required that temperature of shipment be taken at the receiving hospital as long as the shipment was packed according to SOP and received within 24 hours of shipping.