

Department Laboratory
 Laboratory Blood Bank
 Section Blood Selection and Component Prep
 Site(s) UMMC/UMMCH
 Document # D:PC-5902 BB v14

Subject APHERESIS PLATELETS AND SPLITTING APHERESIS PLATELETS

Purpose To prepare apheresis platelets for transfusion.

Policy Apheresis platelets may be modified by splitting into multiple parts for pediatric transfusions or continuous platelet infusion (platelet drips). Platelets can be split into any volume and 20 mL will be added to amount ordered for volume lost in tubing during administration.

Specimen Apheresis Platelet

Equipment/Supplies

1. Heat sealer
2. Plasma expresser
3. Terumo Sterile Tubing Welder

Procedure Component Selection

1. Follow procedure “Blood Type Selection Policies.”
2. Follow procedure “Platelet Guidelines.”

Combining Double Bag Apheresis Platelets to a Single Bag System

1. Place labeled apheresis bag on counter.
2. Hang the unlabeled bag on a hook.
3. Open roller clamps (you may have to “strip” the tubing to start the flow) and allow contents to flow into labeled bag.
4. Seal the tubing at least twice approximately 2 inches apart for a segment.
5. Discard the empty bag and tubing.
6. Change the outdate to 24 hours from the time the bags are combined following the LIS procedure “Blood Product Entry.” This outdate will remain the original outdate if combined in the last 24 hours of storage.
7. Using Sunquest function Blood Bank Label Print, reprint a ½ faced unit label following LIS procedure “Blood Bank Label Print.”
 - a. Ensure label printed correctly and attach to unit.
 - b. Write any pertinent information on new label that was on the original bag

label (e.g. CMV negative status).

8. Store at 20-24°C with continuous agitation.

Splitting Single Apheresis Platelets to Two Parts

Single apheresis platelet units are split in half, resulting in two equal platelet splits for adult continuous platelet infusions (aka platelet drips).

1. Sterile connect a 300 mL transfer bag to the original bag following procedure “Operation of Terumo Sterile Tubing Welder.”
2. Transfer ½ of the volume into the transfer bag and seal the tubing at least twice approximately 2” apart from a segment. Do not detach the bags.
3. Using Sunquest Blood Component Prep function, following LIS procedure “Blood Component Prep,” split the apheresis component into two equal parts in the computer. Use prep code **PLTS**.
 - a. Ensure the proper unit outdates are listed.
 - i. The original bag outdate remains the same.
 - ii. The transfer bag has a 24-hour outdate, provided a sterile connecting device was used.
 - b. A full face ISBT label will generate for each split and a ½ face label will generate for the original bag.
 - i. Ensure labels printed correctly and attach to appropriate unit.
 - ii. Write any pertinent information on new label that was on the original bag label on both bags (e.g. CMV negative status).
4. Detach the split component from the original unit. **Note: It is not required to re-irradiate the split component transfer bag.**
5. Allocate the unit (use the transfer bag first) in Sunquest function Blood Order Processing following LIS procedure “Blood Order Processing.”
6. Attach bag tag to component with a fastener.
7. Store at 20-24°C with continuous agitation.

Splitting Single Apheresis Platelets to Multiple Parts

Single apheresis platelet units are split into multiple part for pediatric patients <45 kg.

1. Select apheresis platelet unit that is 350 mL or less for splitting.
 **If none is available, page the Blood Bank Medical Doctor (BBMD) on call to determine if the split components will need to be volume reduced prior to transfusion. BBMD will consider if amount of platelet bump needed is critical and talk with care team to ensure appropriate volume needs are met. See procedure “Volume Reduction of Platelets” if volume reduction is indicated by BBMD.
2. Sterile connect a transfer bag to the original bag following procedure “Operation of Terumo Sterile Tubing Welder.”
 - a. If split component is < 100 mL, use a 150 mL transfer bag.
 - b. If split component is > 100 mL, use a 300 mL transfer bag.
3. Transfer the requested volume plus 20 mL extra into the transfer bag and seal the tubing at least twice approximately 2” apart from a segment. Do not detach the bags.
4. Using Sunquest Blood Component Prep function, following LIS procedure “Blood Component Prep,” split the apheresis component into two equal parts in the computer. Use prep code **PLTS**.
 - c. Ensure the proper unit outdates are listed.
 - i. The original bag outdate remains the same, provided a sterile connecting device was used..
 - ii. If a 150 mL transfer bag was used, the split outdate is 4 hr.
 - iii. If a 300 mL transfer bag was used, the split outdate is 24 hr.
 - d. A full face ISBT label will generate for each split and a ½ face label will generate for the original bag.
 - i. Ensure labels printed correctly and attach to appropriate unit.
 - ii. Write any pertinent information on new label that was on the original bag label on both bags (e.g. CMV negative status).
5. Detach the split component from the original unit. **Note: It is not required to re-irradiate the split component transfer bag.**
6. Allocate the unit (use the transfer bag first) in Blood Order Processing function following LIS procedure “Blood Order Processing.”
7. Attach bag tag to component with a fastener.

8. If the split is going to NICU, send it to the NICU Lab at this point and they will issue the component.
9. Store at 20-24°C with continuous agitation.

Pediatric Platelet Dosing

1. Pediatric platelet orders will be ordered in mLs. The standard dose is 5-10 mL/kg. When an order is received, check the weight of the patient to confirm the proper volume was ordered. If the volume ordered doesn't match, have the order evaluated by contacting the patient's physician and/or the Blood Bank MD.
2. If ≥ 200 mL are ordered, an adult pheresis will be used. If the pheresis has less volume than ordered, attach a sticker stating the volume is less than ordered, but fills the order.

This platelet unit has a smaller volume than ordered by the provider, but the dose is clinically equivalent.

3. If a continuous drip is ordered, page the Blood Bank MD to establish the amount to be given with each dose.
4. 20 mL of platelets will be added to each order to accommodate platelets lost in tubing.

Critical Values **None**

Summary of Changes Removed need to re-irradiate split transfer bag.

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