## Blood Works NW Modifications to Blood Components

[http://www.bloodworksnw.org/medicine/modifications.html](http://www.bloodworksnw.org/medicine/modifications.html)

<table>
<thead>
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<th>Description</th>
<th>Indication</th>
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| **Leukoreduction:** Removal of white cells either through filtration or special collection techniques | • Prevention of febrile transfusion reactions  
• Reduce HLA alloimmunization with resultant platelet refractoriness or organ transplant rejection  
• Prevention of transmission of Cytomegalovirus (CMV) |
| **NOTE:** Leukoreduction is not indicated in components that contain no viable white cells (Plasma and Cryoprecipitate). | |
| **CMV Seronegative:** RBCs and Platelets from a Cytomegalovirus (CMV) seronegative donor. | • Premature infants, low birth weight neonates, intrauterine transfusions, neonatal exchange transfusions  
• CMV seronegative or unknown with severe immune compromise or HIV/AIDS  
• Congenital immune deficiency  
• Recipients/candidates for hematopoietic or solid organ transplant  
• Pregnancy |
| Blood products are considered “CMV safe” if either CMV sero-negative or leukocyte reduced. | |
| **Irradiation:** Inactivation of lymphocytes to prevent Transfusion-related Graft Versus Host Disease (TA-GVHD), a very rare, but fatal (90-100%) complication of blood transfusion. | • Neonates, intrauterine transfusions, neonatal exchange transfusions  
• Congenital immunodeficiency  
• Severe other immunodeficiency  
• Hematological malignancy  
• Hematopoietic stem cell transplant  
• Patients receiving immunosuppressive drugs  
• All Granulocytes  
• Transfusions from family members (directed donations) or HLA-selected donors |
| **NOTE:** Irradiation is not indicated in components that contain no viable white cells (Plasma and Cryoprecipitate). | |
| **Washed Red Blood Cells and Platelets:** Washing with saline to remove donor plasma. This requires BloodworksNW physician approval. **CAUTIONARY NOTE:** For red cells, approximately 20% of the cells are lost. For platelets, both platelet recovery and function are severely impaired. | • Severe, life threatening plasma allergies uncontrolled by medications or volume reduction as determined by BloodworksNW |
| **Volume Reduced Platelets:** Removal of donor plasma. **CAUTIONARY NOTE:** Approximately 10% of platelets are lost, platelets are activated and function is lost. | • Persistent allergic transfusion reactions  
• ABO incompatibility between platelet donor and patient  
• Exquisitely sensitive to volume |