



## Washing of Blood Products Guide for Vanderbilt University Medical Center (VUMC)

Purpose of document: Provide VUMC healthcare providers with clear guidance on clinical situations that require blood product washing. Document advantages and disadvantages.

The VUMC blood bank is located at 4650 TVC (phone is 2-2233), website <https://www.mc.vanderbilt.edu/root/vumc.php?site=vmcpathology&doc=39082>

Indication: Washing of blood products is an infrequent occurrence. Patients with multiple clinically documented severe allergic/anaphylactic reactions, IgA deficient donor when IgA deficient blood donor is not available, and neonatal cardiac surgical patients.

Both the VUMC blood bank and the pediatric operating room have FDA approved cell washers.

Who should receive washed blood products?

1. IgA deficient patients. The lower limit of detection for quantitative immunoglobulins at VUMC will only show if a patient is <10 mg/dL. True IgA deficient patients at risk for anaphylaxis have levels < 0.05 mg/dL, as such specialized testing needs to be performed. Must contact VUMC blood bank for consultation. If product is not available, a washed RBC/platelet product can be used.
2. Patients with documented anaphylaxis due to blood product administration.
3. Washed irradiated maternal platelet products may be very rarely needed in cases of neonatal alloimmune thrombocytopenia when an appropriate allogeneic blood product cannot be identified.

Who should **NOT** receive washed blood products? Patient's with clinically significant allo- and/or auto-antibodies do NOT need washed blood products, rather they need blood products that are negative for the offending antigen. Jehovah's Witness patients require detailed and documented consent for blood product exposure, washing products does **NOT** reduce the "human" component. FFP and Cryo **cannot** be washed. Patients with a history of mild allergic transfusion reactions (urticaria) do **not** need washed blood products.

Disadvantage of washing blood products? Although washing can initially decrease the supernatant potassium level of RBC products, after 4 hours if not transfused the potassium levels can increase to levels above baseline. Washing of RBC units results in 20% loss of the product; for platelets 33% is lost. Washing of blood products requires significant time in the laboratory and can delay the turn-around time for issuing units.

Document created by Garrett S. Booth M.D., M.S.