The American Red Cross and TRALI Mitigation

The Red Cross is committed to providing the safest possible blood supply. The leading cause of transfusion-related mortality is transfusion-related acute lung injury (TRALI), and the Red Cross is taking firm action to mitigate the risk of this adverse reaction.

In October 2016 AABB Standard #5.4.1.2 went into effect for platelets. The Standard initially stated: “Plasma and whole blood for allogeneic transfusion shall be from males, females who have not been pregnant, or females who have been tested since their most recent pregnancy and results interpreted as negative for HLA antibodies.” The following was appended to this Standard:

“5.4.1.2.1 For apheresis platelet components, Standard 5.4.1.2 shall be implemented by October 1, 2016”.

In preparation for this, we proactively tested all female platelet apheresis donors who reported a history of pregnancy (this was already in place system-wide for first time donors). With the implementation of the Standard, Red Cross now conducts HLA antibody testing on all platelet apheresis donors who report a history of pregnancy. Only products that test ‘negative’ are released for transfusion. The following summarizes the measures that the Red Cross has taken to mitigate the risk of TRALI:

**Plasma**
All plasma for transfusion is collected from male donors or female apheresis donors who test ‘negative’ for the presence of HLA antibodies.

**HLA Antibody testing**
All female platelet apheresis donors who report a history of pregnancy since their last donation are tested for HLA antibodies. Those who test ‘positive’ (i.e., who test above an agreed upon cutoff level for HLA antibodies) are redirected to whole blood and neither platelets nor plasma collected from these donations are distributed.