# REVIEW OF THE EFFECTIVENESS AND COST-EFFECTIVENESS OF APHERESIS AND ADDITIVE SOLUTION AS A VCJD RISK REDUCTION MEASURE IN THE PRODUCTION OF PLATELETS

In 2008 SaBTO's predecessor committee, the Advisory Committee on the Microbiological Safety of Blood, Tissues and Organs for Transplantation, set a target of 80% of platelets to be produced by apheresis, to reduce the number of donors to whom recipients were exposed, as a vCJD risk reduction measure. In 2009 SaBTO recommended that the UK Blood Services should move as far as possible towards 100% apheresis platelets but that a minimum of 80% of platelets should be collected by apheresis. Currently all four blood services meet this minimum requirement.

Since 2009, there have been developments in the understanding of vCJD which have led to a revision of the assumptions concerning the infectivity associated with a whole blood donation and the prevalence of vCJD in the UK population.

The revised assumptions, which have been agreed by the Advisory Committee on Dangerous Pathogens (ACDP) TSE risk assessment sub group, represent a 1000 fold decrease in the assumed infectivity associated with a whole blood donation.

In June 2013, in light of the revised assumptions, the SaBTO Prion Sub Group commenced a review of the effectiveness and cost effectiveness of the continued collection of 80% of platelets by apheresis as a vCJD risk reduction measure.

The review also sought to consider the effectiveness and cost effectiveness of the potential introduction of additive solution to replace the current production method of suspending platelets in donated plasma. This method would reduce the volume of plasma in each unit of platelets. This is therefore an alternative vCJD risk reduction measure, which could be used for pooled platelets alone or for all platelets.

## Summary of findings

- Maintaining the proportion of platelet units procured by apheresis at 80% is not cost effective in any of the scenarios considered.
- Although the introduction of additive solution is not always cost-effective, it does always reduce the number of cases that could be expected.
- When compared to the current baseline, reducing the level of apheresis and introducing universal use of additive solution is always more cost-effective and represents a reduction in the number of life years lost.

**Recommendation**

The SaBTO Prion Sub Group recommends that:

SaBTO should remove the requirement to produce 80% of platelets by apheresis and platelet additive solution is used for the suspension of platelets.

**SaBTO is asked:**

Does SaBTO agree with the above recommendation?