Sourcing of blood
from donors born after 1st January 1996

People born on or after 1st January 1996 are assumed to have been largely protected from exposure to variant Creutzfeldt Jakob disease (vCJD) through diet, and they will become eligible to donate blood as they reach 17 years of age, from 1st January 2013 onwards. Optimising the use of donations from this group is one strategy being explored to help minimise the potential risk of transmitting vCJD through blood.

A Working Group of the UK Blood Services (with Department of Health analysts) has developed an operational plan for directing donations from this donor cohort ('Club 96') to groups of patients also born after 1st January 1996 and hence with low risk of exposure to vCJD through diet. This follows the discussion at the SaBTO meeting on 10th December 2012, when it was agreed that provision of components to the youngest recipients (intrauterine transfusions, neonatal transfusions) would be a logical first objective, followed by gradual provision to all recipients born after 1st January 1996. Modelling indicates that supply for neonates (28 days old) could be fully met within 3-4 years, but reliably meeting demand for all recipients to be protected may take until 2025.

However a number of concerns were raised over potential virological hazards represented by this cohort of young donors.

It is possible that the incidence of plasma viraemia of cytomegalovirus (CMV) and Epstein-Barr virus (EBV) herpes viruses and B19 parvovirus may be higher in the Club 96 young adult donor cohort than in the general unselected donor population, due to the rate of acquisition of these infections in the late teenage years. Although donations directed to neonates are currently tested for CMV, this is for antibody only and not for viral DNA. Neither EBV nor B19 testing is currently performed on donations for any recipient groups. Opinions from neonatologists suggest that intrauterine/neonatal EBV infection is not currently considered a significant clinical concern, though a specialist opinion is rarely sought. Intrauterine B19 can have serious consequences.

Therefore it is proposed to conduct a study, hosted in the joint Public Health England/NHS Blood and Transplant (NHSBT) Blood Borne Virus Unit at Colindale, to establish both the prevalence of antibody, and thus susceptibility in the donor population, and the frequency of cell free plasma viraemia, using archived samples held by NHSBT. Funding in part has been approved by the UK Blood Services. It is estimated that this study will take 9-12 months to complete and is planned to commence in the second half of 2013-14 (after the current hepatitis E virus study is completed).

This would delay provision of blood for intrauterine transfusions from the Club 96 donor cohort by at least 12 months.

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Question for SaBTO: SaBTO is asked whether the UK Blood Services should implement plans to direct donations from donors born after 1st January 1996 to neonates, including intrauterine transfusion, based on current information on virus risks; or should await the outcome of the planned study and a risk assessment based on the new information?