3.1: Blood donation

Unpaid volunteers who donate on a regular basis are a crucial element in the provision of a safe and reliable supply of blood. Many studies show that altruistic donors have a lower prevalence of transfusion-transmissible infections.

The minimum age for donation is 17 years. There is no upper age limit for regular donors, although they are subject to annual health review after their 66th birthday. The upper age limit for first-time donors is 65 years. The minimum body weight for blood donation is 50 kg (7 st 12 lb). Only 5% of eligible people are regular blood donors and the Blood Services put much effort into improving recruitment, especially of donors from minority ethnic groups.

3.1.1: Donor eligibility

Donors answer a series of questions before each donation relating to their health, lifestyle, travel history, medical history and medication. This is to ensure the safety of both the donor and recipients. Donor exclusion and deferral criteria are regularly reviewed in the light of scientific knowledge. For example, there have been recent significant changes to the eligibility of ‘men who have sex with men’ (MSM) to donate blood in the UK (see Chapter 5). Up-to-date eligibility criteria are given in the Red Book (http://www.transfusionguidelines.org.uk/).

3.1.2: Frequency of donation

The normal interval between whole blood donations is 16 weeks (minimum 12 weeks) but no more than three donations a year are collected from female donors because of their more precarious iron status. Donors undergo a screening test for anaemia, usually the copper sulphate flotation test on a finger prick sample. The minimum pre-donation Hb concentration is 125 g/L for female donors and 135 g/L for males.

Donors giving double red cell donations by apheresis must have a pre-donation Hb concentration of 140 g/L and the minimum interval between donations is 26 weeks.

Donors can give platelets or plasma by apheresis on a cell separator with a maximum of 24 procedures in 12 months. The minimum interval between donations is 2 weeks and plasma donors are limited to 15 litres a year.

3.1.3: Genetic haemochromatosis

Donors with this common genetic condition, which causes increased iron absorption from the diet, are eligible to become blood donors if they meet all the other medical selection and age criteria. Regular blood donation can be part of their maintenance treatment schedule to prevent iron overload.