



Table 5: Types of Apheresis

Component	Reference range	Suitability of donors	Indicators
Red cell Erythrocytapheresis -	Haemoglobin: Minimum 13.5 g/dl Weight: 65 kg, other sources suggest more than 55 kg.	Interval between procedures: 6 months (Basu and Kulkarni, 2014)	<ul style="list-style-type: none"> - Paediatric patients with thalassaemia - Paediatric patients with leukaemia. - Post-ABO incompatible bone marrow transplant - Infection e.g. malaria - Anaemia - Trauma
Platelephersisis	Count: 150,000/mm ³ Normal white cell count Normally, a platelet unit requires 4 to 6 donors. The concentrates of donor platelets are made from the buffy coat following centrifugation.	Patients with a previous clinical history of bleeding cannot donate. Patients with a family history of bleeding cannot donate. Donors who were prescribed aspirin or antiplatelets in the	<ul style="list-style-type: none"> - Thrombocytopenia - Leukaemia - Cardiopulmonary surgery - Bone Marrow Transplant - Organ transplant

	<p>They are leukocyte-reduced and contain $< 1 \times 10^6$ leukocytes per unit. Increases platelet count (PLT) by $15\text{--}30 \times 10^9$ within 10 minutes (Knudsen, 2025).</p> <p>PLT ranges (Knudsen, 2025) <i>Good haemostasis:</i> Above $100 \times 10^9/\text{L}$. <i>Stable haemostasis:</i> Above $60 \times 10^9/\text{L}$. <i>Indicators for bleeding:</i> Above $40 \times 10^9/\text{L}$. <i>Indicators for no bleeding:</i> Above $20 \times 10^9/\text{L}$.</p>	<p>last 72 hours should defer plateletpheresis for 3 medication-free days.</p> <p>Donors with clopidogrel or ticlopidine (antiplatelets) should defer for 14 medication-free days.</p> <p>A maximum of two procedures per month and 24 in total for one year. The procedure can be repeated after 48 hours (Basu and Kulkarni, 2014).</p>	<ul style="list-style-type: none"> - Anaemia - Disseminated Intravascular Coagulation - Severe haemorrhage, bleeding in the brain.
<p>Plasmapheresis Collect normal plasma</p>	<p><i>Haemoglobin:</i> minimum 12 g/dl <i>Haematocrit:</i> minimum 36% <i>Total serum protein:</i> minimum 6 g/dl <i>Maximum plasma volume:</i> 500ml <i>Donor weight:</i> minimum 55 kg</p>	<p>Donation interval: 2 per week, 24 in year.</p> <p>Please see Figure 32</p> <p>Red blood cells must return within 2 hours</p>	<p>Low protein levels in the blood Helps stop bleeding Plasma exchange in condition like Guillian Barre Syndrome.</p>

Leukapheresis (Harvest granulocytes, peripheral blood haematopoietic stem cells)	Granulocyte concentrate Peripheral blood stem cells harvested using intermittent or continuous 2×10^6 CD34 cells or 2×10^8 MNCS/kg body Please see Figure 33	Drugs are given to help with harvest: <ul style="list-style-type: none"> - Growth factors (G-CSF) - Hydroxyethyl starch (HES) is a red cell aggregating agent - Dexamethasone (steroids) to help with harvest. Surveillance is needed as adverse effects may rise.	<ul style="list-style-type: none"> - Chronic granulomatous disease - Aplastic Anaemia - Patients taking chemotherapy - Bacterial infections - Fungal infections
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