

Platelet Transfusion Indications

Decision to transfuse should be based on both laboratory investigations and assessment of the clinical condition with careful consideration of risks & benefits.

Platelet count (x10 ⁹ /L)	Clinical situation to trigger platelet transfusion
<10	<ul style="list-style-type: none"> Clinically stable paediatric patients receiving chemotherapy for leukaemia or post haematopoietic stem cell transplantation (HSCT) Clinically stable patients with solid tumours (prophylactic)* * Transfusions at higher levels may be required for bladder, brain or necrotic tumours Critically ill patients with no bleeding
<20	<ul style="list-style-type: none"> Chemotherapy, HSCT & risk factors (e.g. fever, sepsis, minor bleeding, mucositis, disseminated intravascular coagulopathy (DIC) without bleeding) Critically ill patients with no bleeding and risk factors (e.g. sepsis, renal failure, medications) Nasogastric tube insertion Intramuscular injections e.g. Erwinia aspariginase Insertion of a non-tunnelled central venous line
<30	<ul style="list-style-type: none"> Lumbar puncture (LP) and on-going chemotherapy induced thrombocytopenia Central nervous system (CNS) tumour and: <ul style="list-style-type: none"> A VP shunt or Ommaya reservoir Has a gross total resection and is receiving chemotherapy and/or radiation Has residual tumour and is receiving chemotherapy and/or radiation
<50	<ul style="list-style-type: none"> LP and new disease induced thrombocytopenia Patient undergoing invasive procedure (including tunnelled central venous line insertion) Moderate active bleeding (including bleeding associated with DIC) CNS tumour and: <ul style="list-style-type: none"> - A past history of intracranial haemorrhage - Is receiving an anti- angiogenesis agent
<75	<ul style="list-style-type: none"> Major haemorrhage due to trauma or significant post-operative bleeding (e.g. post cardiac surgery)
<100	<ul style="list-style-type: none"> Patient undergoing high risk invasive procedure (e.g. neurosurgery/ophthalmology) Extra-corporeal life support (ECLS) (lower platelets may be acceptable in stable patients)
Platelet transfusion not appropriate	<ul style="list-style-type: none"> Stable patients with chronic, stable, severe thrombocytopenia due to alloimmunisation, ITP, TTP, aplastic anaemia or MDS should be observed without prophylactic platelet transfusions. These patients should receive platelet transfusions with clinically significant bleeding only. Bone marrow aspirate and trephine biopsy Intravenous cannula insertion

ITP – immune thrombocytopenia, TTP – thrombotic thrombocytopenic purpura, MDS – myelodysplastic syndrome.

Platelet count (x10 ⁹ /L)	Clinical situation to trigger platelet transfusion in <u>neonates</u>
<25 - 30	Stable term or preterm infant with asymptomatic thrombocytopenia and no bleeding
30 - 50	Sick preterm infant with thrombocytopenia
<50	Term or preterm infant with symptomatic thrombocytopenia and minor bleeding, coagulopathy or prior to surgery.
<100	Term or preterm infant with symptomatic thrombocytopenia and major bleeding or requiring major surgery (e.g. neurosurgery)