



CLINICAL PRACTICE GUIDELINES

Appropriate Use of Blood Components

- Use of blood components for clinical or laboratory indications not listed here is likely to be inappropriate. Consult the NHMRC/ASBT guidelines (www.nhmrc.gov.au) for further details.
- Clinical and laboratory indications for use should be documented.

Red blood cells

Hb*	Considerations
<70g/L	Lower thresholds may be acceptable in patients without symptoms and/or where specific therapy is available.
70-100g/L	Likely to be appropriate during surgery associated with major blood loss or if there are signs or symptoms of impaired oxygen transport.
>80g/L	May be appropriate to control anaemia-related symptoms in a patient on a chronic transfusion regimen or during marrow suppressive therapy.
>100g/L	Not likely to be appropriate unless there are specific indications.

* Hb should not be the sole deciding factor. Consider also patient factors, signs and symptoms of hypoxia, ongoing blood loss and the risk to the patient of anaemia.

Platelets

Use of platelets is likely to be **appropriate as prophylaxis**:

Indication	Considerations
Bone marrow failure	At a platelet count of $<10 \times 10^9/L$ in the absence of risk factors and $<20 \times 10^9/L$ in the presence of risk factors (eg fever, antibiotics, evidence of systemic haemostatic failure).
Surgery/invasive procedure	To maintain platelet count at $>50 \times 10^9/L$. For surgical procedures with high risk of bleeding (eg ocular or neurosurgery) it may be appropriate to maintain at $100 \times 10^9/L$.
Platelet function disorders	May be appropriate in inherited or acquired disorders, depending on clinical features and setting. In this situation, platelet count is not a reliable indicator.

Platelets

Use of platelets is likely to be **appropriate as therapy**:

Indication	Considerations
Bleeding	May be appropriate in any patient in whom thrombocytopenia is considered a major contributory factor.
Massive haemorrhage/transfusion	Use should be confined to patients with thrombocytopenia and/or functional abnormalities who have significant bleeding from this cause. May be appropriate when the platelet count is $<50 \times 10^9/L$ ($<100 \times 10^9/L$ in the presence of diffuse microvascular bleeding).

Fresh frozen plasma

Use of fresh frozen plasma is likely to be **appropriate**:

Indication	Considerations
Single factor deficiencies	Use specific factors if available.
Warfin effect	In the presence of life-threatening bleeding. Use in addition to vitamin-K-dependent concentrates.
Acute DIC	Indicated where there is bleeding and abnormal coagulation. Not indicated for chronic DIC.
TTP	Accepted treatment.
Coagulation inhibitor deficiencies	May be appropriate in patients undergoing high-risk procedures. Use specific factors if available.
Following massive transfusion or cardiac bypass	May be appropriate in the presence of bleeding and abnormal coagulation.
Liver disease	May be appropriate in the presence of bleeding and abnormal coagulation.

Cryoprecipitate

Use of cryoprecipitate is likely to be **appropriate**:

Indication	Considerations
Fibrinogen deficiency	May be appropriate where there is clinical bleeding, an invasive procedure, trauma or DIC.

Abbreviations: Hb = haemoglobin; DIC = disseminated intravascular coagulation; TTP = thrombotic thrombocytopenic purpura.