

Blood transfusion NICE guideline NG24 18 November 2015

- This guideline covers the assessment for and management of blood transfusions in adults, young people and children over 1 year old
- It covers the general principles of blood transfusion, but does not make recommendations relating to specific conditions

Recommendations

The guideline includes recommendations on:

- alternatives to transfusion for patients having surgery
- thresholds, targets and doses for red blood cells, platelets, fresh frozen plasma, cryoprecipitate, and prothrombin complex concentrate
- patient safety
- patient information

Key priorities for implementation

South West Regional Transfusion Committee

Alternatives to blood transfusion for patients having surgery

Intravenous and oral iron

- Offer oral iron before and after surgery to patients with iron-deficiency anaemia

Cell salvage and tranexamic acid

- Offer tranexamic acid to adults undergoing surgery who are expected to have at least moderate blood loss (greater than 500 ml)
- Consider intra-operative cell salvage with tranexamic acid for patients who are expected to lose a very high volume of blood (for example in cardiac and complex vascular surgery, major obstetric procedures, and pelvic reconstruction and scoliosis surgery)

Key priorities for implementation

South West Regional Transfusion Committee

Red blood cells

Thresholds and targets

- When using a restrictive red blood cell transfusion threshold, consider a threshold of 70 g/litre and a haemoglobin concentration target of 70–90 g/litre after transfusion

Doses

- Consider single-unit red blood cell transfusions for adults (or equivalent volumes calculated based on body weight for children or adults with low body weight) who do not have active bleeding

Key priorities for implementation

Platelets

Thresholds and targets

Patients who are not bleeding or having invasive procedures or surgery

- Offer prophylactic platelet transfusions to patients with a platelet count below $10 \times 10^9/L$ who are not bleeding or having invasive procedures or surgery, and who do not have any of the following conditions:
 - chronic bone marrow failure
 - autoimmune thrombocytopenia
 - heparin-induced thrombocytopenia
 - thrombotic thrombocytopenic purpura.

Doses

- Do not routinely transfuse more than a single dose of platelets.

Key priorities for implementation

South West Regional Transfusion Committee

Fresh frozen plasma

- Do not offer fresh frozen plasma transfusions to correct abnormal coagulation in patients who:
 - are not bleeding (unless they are having invasive procedures or surgery with a risk of clinically significant bleeding)
 - need reversal of a vitamin K antagonist

Prothrombin complex concentrate

- Offer immediate prothrombin complex concentrate transfusions for the emergency reversal of warfarin anticoagulation in patients with either:
 - severe bleeding or
 - head injury with suspected intracerebral haemorrhage

Key priorities for implementation

Patient information

- Provide verbal and written information to patients who may have or who have had a transfusion, and their family members or carers (as appropriate), explaining:
 - the reason for the transfusion
 - the risks and benefits
 - the transfusion process
 - any transfusion needs specific to them
 - any alternatives that are available, and how they might reduce their need for a transfusion
 - that they are no longer eligible to donate blood
 - that they are encouraged to ask questions