

PATIENT BLOOD MANAGEMENT

OVERVIEW

Patient blood management (PBM) is a coordinated, patient-centred approach to manage and conserve a patient's own blood in order to improve health outcomes.

PBM strategies include:

- 1 Identify and manage anaemia
- 2 Minimise risk of bleeding, and
- 3 Transfuse according to evidence-based guidelines.

PBM requires early identification and proactive, multidisciplinary intervention for patients at high risk for transfusion. Techniques may involve the use of pharmaceutical agents and medical devices that reduce the need for allogeneic blood transfusion.

The use of PBM strategies and techniques are associated with improved patient outcomes, patient satisfaction and healthcare cost-savings. They can be beneficial for all patient groups and clinical scenarios as outlined in the six Australian Patient Blood Management Guideline Modules (which are currently under review). PBM is now adopted as a standard of care for all patients who may be at risk of transfusion at any time during their care.

Find the *Patient Blood Management Guidelines* (Modules 1–6) at blood.gov.au

IDENTIFY AND MANAGE ANAEMIA

Key messages:

- Anaemia is common, with iron deficiency a major contributor, and is an indicator of underlying disease.

30% 
of preoperative patients have anaemia

50% 
of patients with chronic heart failure are iron deficient

- Anaemia is independently associated with increased morbidity, mortality and the likelihood of red blood cell transfusion (which has its own inherent risks).

Morbidity is **3x GREATER** 
in patients with preoperative anaemia

- Identify and manage all patients with, or at risk of, iron deficiency and anaemia.
- Schedule elective surgery after successful treatment.
- Consider IV iron when rapid restoration of iron stores/haemoglobin is required.

 IV iron before major abdominal surgery decreased hospital length of stay by **2.7 DAYS**

MINIMISE RISK OF BLEEDING

Key messages:

- Blood tests result in significant blood loss. Only order essential tests and minimise sample volume.

 Microsampling decreases blood loss by over **40%**

- Cell salvage is one of many techniques available to minimise blood loss.

Cell salvage can reduce the need for red blood cell transfusion by **40%**

- Antiplatelet agents and anticoagulants increase bleeding risk.
- Tranexamic acid decreases bleeding risk.

If given in the first hour after major trauma, tranexamic acid 
DECREASES MORTALITY
due to bleeding by one third

TRANSFUSE ACCORDING TO EVIDENCE-BASED GUIDELINES

Key messages:

- Red blood cell transfusion increases morbidity and mortality in a dose-dependent manner.
- A single unit policy and restrictive transfusion strategy (using a lower haemoglobin threshold) is safe and reduces the risk of red blood cell transfusion in most clinical scenarios.

 A single unit policy results in a reduction of red blood cells usage by **ONE THIRD**

 A restrictive transfusion strategy (Hb threshold 70–80 g/L) decreases the risk of receiving a transfusion **BY NEARLY 50%**

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To find out more visit transfusion.com.au

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 Australian Red Cross
BLOOD SERVICE