

Guidance on Red Cell Transfusion: Medical Patients

When in doubt, seek expert advice.

Guidelines on transfusion practice can be found in the National Patient Blood Management (PBM) Guidelines (including quick reference guides & iPad apps) available at www.blood.gov.au

These include information on red cells, platelets, FFP & cryoprecipitate, as well as blood management strategies such as specific therapies for anaemia, cell salvage & haemostatic agents.

- ⇒ **Patients with critical bleeding**, refer to hospital massive transfusion / critical bleeding protocols / algorithms & Critical Bleeding / Massive Transfusion PBM Guidelines (Module 1).
- ⇒ **Patients in critical care settings**, refer to the Critical Care PBM Guidelines (Module 4).
- ⇒ **Stable adult perioperative patients** (including peri-procedural) refer to the Perioperative PBM Guidelines (Module 2).
- ⇒ **Stable adult medical patients**, refer to the Medical PBM Guidelines (Module 3) & see red cell use information from these guidelines shown over the page.
- ⇒ **Obstetric and paediatric / neonatal patients**, refer to module 5 & 6 respectively (in progress).
- ⇒ **For warfarin reversal**, refer to hospital guidelines & the current MJA guidelines (March 2013).

Red Cell Transfusion - General Practice Points

- ☑ **Red cell transfusion should NOT be dictated by Hb alone**, but should also be based on assessment of the patient's clinical status.
- ☑ **Where indicated, transfusion of a SINGLE of red cells, followed by clinical reassessment** to determine the need for further transfusion, is appropriate. This reassessment will also guide the decision on whether to retest the Hb.
- ☑ **In patients with iron deficiency anaemia (IDA), iron therapy is REQUIRED** to replenish iron stores regardless of whether a transfusion is indicated. See MJA Clinical Update on IDA (November 2010) for more information.

- ☑ EACH UNIT prescribed is an independent clinical decision
- ☑ Provide patient information
- ☑ Obtain & document informed consent
- ☑ Ensure positive patient identification at each step of the transfusion process

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Adult medical patients WITHOUT critical bleeding or acute coronary syndrome (ACS).

Practice Points: This includes general medical patients & those with heart failure, cancer, chronic kidney disease or undergoing chemotherapy or stem cell transplant:

- **Hb < 70 g/L**, red cell transfusion may be associated with reduced mortality & is likely to be appropriate. However, transfusion may not be required in well-compensated patients or where other specific therapy is available.
- **Hb 70 – 100 g/L**, red cell transfusion is not associated with reduced mortality. The decision to transfuse patients (with a SINGLE UNIT followed by reassessment) should be based on the need to relieve clinical signs & symptoms of anaemia, & the patient's response to previous transfusions. No evidence was found to warrant a different approach for patients who are elderly or who have respiratory or cerebrovascular disease.
- **Hb > 100 g/L**, red cell transfusion is likely to be unnecessary & is usually inappropriate. Transfusion has been associated with increased mortality in patients with ACS.

For guidance on chronically transfused patients with thalassaemia or myelodysplasia refer to the relevant section of module 3.

Patients WITH Acute Coronary Syndrome (ACS):

- **Hb < 80 g/L**, red cell transfusion may be associated with reduced mortality & is likely to be appropriate (Practice Point).
- **Hb 80 – 100 g/L**, effect of red cell transfusion on mortality is uncertain & may be associated with an increased risk of recurrence of MI. Any decision to transfuse should be made with caution & based on careful consideration of risks and benefits (Practice Point).
- **Hb > 100 g/L**, red cell transfusion is not advisable because of an association with increased mortality (Recommendation - Grade C).

Reference

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