



TOP-FIVE

RECOMMENDATIONS on low-value practices

Better care. **Better** decision-making. **Better** use of resources.

The Australian and New Zealand Society of Blood Transfusion (ANZSBT)

comprises over 400 members from diverse scientific, medical and nursing backgrounds working within the area of blood transfusion and related fields.

The broad aims of the ANZSBT are the:

- advancement of knowledge in blood transfusion and transfusion medicine
- promotion of improved standards in the practice of blood transfusion
- collaboration with international and other regional societies interested in blood
- promotion of interest in research into blood transfusion and allied subjects
- formulation of guidelines in key areas of transfusion practice.

NB. These recommendations do not apply to emergency situations, severe acute bleeding and acute phase of major trauma resuscitation.

1

Do not use peri-operative transfusion for otherwise reversible anaemia prior to elective surgery

2

Do not transfuse red blood cells for iron deficiency where there is no haemodynamic instability

3

Do not transfuse more units of blood than necessary

4

Do not order a group and crossmatch when a group and antibody screen would be appropriate

5

Do not transfuse standard doses of fresh frozen plasma to correct a mildly elevated (<1.8) international normalized ratio prior to a procedure





1

Do not use peri-operative transfusion for otherwise reversible anaemia prior to elective surgery

Peri-operative transfusions as a means of addressing untreated preoperative anaemia is associated with decreased overall survival rates but not with recurrence free survival. There is some new evidence that these negative associations are due to the clinical circumstances requiring transfusions rather than the transfusions themselves, but this still suggests that it is preferable to identify and manage anaemia prior to surgery.

2

Do not transfuse red blood cells for iron deficiency where there is no haemodynamic instability

Blood transfusion has become a routine medical response despite cheaper and safer alternatives in some settings. Pre-operative patients with iron deficiency and patients with chronic iron deficiency without hemodynamic instability (even with low haemoglobin levels) should be given oral and/or intravenous iron. Possible exceptions are where reliable ingestion of iron may not occur or gastrointestinal issues exist.

3

Do not transfuse more units of blood than necessary

Every unit of blood transfused presents benefits and risks to the patients. Risks associated with transfusion include:

- febrile reactions
- allergic reactions and anaphylaxis
- haemolytic reactions
- transfusion- transmitted infections
- transfusion-associated acute lung injury, transfusion-associated circulatory overload
- alloimmunisation.

Each unit transfused must have a clear indication and unnecessary transfusions must be avoided.

A restrictive transfusion strategy (Haemoglobin (Hb) of 70-80g/L) should be used for the majority of hospitalised, stable (non-bleeding) adult patients. The decision to give a red blood cell transfusion should not be dictated by Hb alone and should also include an assessment of the patient's underlying condition, any clinical signs and symptoms and response to previous transfusions.

A single unit of red cell transfusions is the standard of care for non-bleeding, hospitalised patients. Additional units should only be prescribed after clinical re-assessment of the patient and their haemoglobin value.



4

Do not order a group and crossmatch when a group and antibody screen would be appropriate

Modern on-site laboratories can issue compatible blood within minutes if the patient has a valid group and screen and no clinically significant red cell antibodies.

Cross-matching blood unnecessarily increases total inventory levels, increases the average age at which units are transfused, increases blood wastage and creates additional work and costs associated with transfusion.

If an on-site laboratory is not available, then cross-matching should be guided by a Maximum Surgical Blood Ordering Schedule (MSBOS) to minimise wastage.

For patients with antibodies laboratories should have a policy related to cross matching blood for those patients who have difficult to match antibodies.



5

Do not transfuse standard doses of fresh frozen plasma to correct a mildly elevated (<1.8) international normalized ratio prior to a procedure

There is no evidence to support the prophylactic administration of fresh frozen plasma (FFP) to correct a mildly elevated international normalized ratio (INR) prior to procedure. The evidence supports the use of Vitamin K and suggests the use of FFP correlated with an increased risk of intra-operative bleeding and/or increased risk of transfusion reactions.

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For the list of references supporting these recommendations and further information on the development process, see evolve.edu.au/recommendations/anzsbt.
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WHAT IS EVOLVE?

As part of a global movement, Evolve is a flagship initiative led by physicians, specialties and the Royal Australasian College of Physicians (RACP) to drive high-value, high-quality care in Australia and New Zealand.

Evolve aims to reduce low-value care by supporting physicians to:

- be leaders in changing clinical behaviour for better patient care
- make better decisions, and
- make better use of resources.

Evolve works with specialties to identify their 'Top-Five' clinical practices that, in particular circumstances, may be overused, provide little or no benefit, or cause unnecessary harm. Evolve 'Top-Five' recommendations on low-value practices are developed through a rigorous, peer-reviewed

process; led by clinical experts, informed by evidence and guided by consultation.

Evolve enables physicians to:

- safely and responsibly phase out low-value tests, treatments and procedures, where appropriate
- enhance the safety and quality of healthcare
- provide high-value care to patients based on evidence and expertise, and
- influence the best use of health resources, reducing wasted expenditure and the carbon footprint of the healthcare system.

The RACP, through Evolve, is a founding member of Choosing Wisely Australia® and Choosing Wisely New Zealand, with all Evolve 'Top-Five' recommendations part of the Choosing Wisely campaign.