

6. PREOPERATIVE AUTOLOGOUS DONATION (PAD)

Preoperative autologous blood donation (PAD) is the process of collecting a person's blood for their own use in the lead up to planned surgery. Routine use of this intervention is not supported by the evidence based PBM guidelines.

Key messages

- PAD results in lower preoperative haemoglobin.
- PAD is associated with higher transfusion rates.
- Autologous blood is not without risk.

Clinical implications

- The routine use of PAD is not recommended.¹
- PAD collection should only be undertaken in exceptional circumstances, such as patient with a rare blood group or multiple red cell antibodies whose transfusion requirements cannot be met with allogeneic blood and are fit for donation^{2,3}.

Background

PAD has previously been adopted in the belief that it is a safer alternative to allogeneic blood. However, patients who have undergone preoperative autologous collection have been shown to have significantly lower preoperative haemoglobin levels, resulting in an increased likelihood (24%) of requiring a transfusion (autologous or allogeneic).¹ PAD is associated with risks in relation to collection (adverse events such as vasovagal reactions), storage and handling, and transfusion. Many of these are similar to those for allogeneic transfusions, such as bacterial contamination, and clerical error resulting in transfusion of the wrong blood to the patient.^{4,5} Many studies highlight the low cost-benefit ratio and significant wastage (up to 50% of units) that occurs with PAD.⁴⁻⁷ Routine preoperative autologous blood donation is no longer recommended (PO-R11).¹

References

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