14. ACUTE NORMOVOLAEMIC HAEMODILUTION

Acute normovolaemic haemodilution (ANH) is a blood conservation technique which may be considered for patients undergoing surgery in which substantial blood loss is anticipated. (PBM Pillar 2)

Key messages

- ANH removes whole blood from a patient at the start of surgery, which is reinfused at the conclusion of surgery. It may minimise red cell loss.
- ANH may reduce the incidence and volume of allogeneic blood transfusion.¹

Clinical implications

- In adult patients undergoing surgery in which substantial blood loss is anticipated, the use of ANH should be considered (PO-R14).¹
- ANH requires a local procedural guideline that addresses patient selection, vascular access, volume of blood withdrawn, choice of replacement fluid, blood storage and handling, and timing of reinfusion (PO-PP12).¹
- ANH can be used alone or in combination with other patient blood management strategies.
- Surgical procedures where a benefit for ANH has been demonstrated include: radical prostatectomy, hip and knee arthroplasty, cardiothoracic surgery, vascular and spinal surgery.²

Background

ANH is performed immediately prior to surgery and involves the removal of whole blood from a patient and replacement of circulating blood volume with colloid and/or crystalloid solutions. The harvested blood, containing functional platelets and clotting factors, may be reinfused when a transfusion is indicated during or after the procedure. Further information and suggested guidelines for acute normovolaemic haemodilution are available from the WA Health PBM Program² and ANH: A practical approach is available from the Network for Advancement of Transfusion Alternatives (NATA).³

References
