

Blood Transfusion Requirements in Shoulder Arthroplasty: Can We Reduce Unnecessary Perioperative Blood Testing?

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Aims

This retrospective audit aims to evaluate use of preoperative group and save blood tests and blood transfusions in patients undergoing shoulder arthroplasty.

Methods

Electronic health records were reviewed for all primary shoulder arthroplasty procedures between 1st July 2023 and 1st July 2025 at our regional shoulder unit. Data collected included demographic information, perioperative haemoglobin values, group & save sampling and transfusion requirements.

Conclusion

We propose standardisation and rationalisation of perioperative blood testing requirements for elective shoulder replacement surgery, such as eliminating the need for the group and save testing in absence of preoperative anaemia. This streamlined approach to perioperative blood testing requirements has the potential to optimise the use of healthcare resources and improve patient experience without compromising clinical care.

Results



Arthroplasty procedure

- Total shoulder (n=32)
- Reverse shoulder (n=20)
- TOTAL n=52

Peri-operative blood testing

- Pre-op Full Blood Count (n=50)
- Post-op Full Blood Count (n=31)
- Valid Group & Save at time of surgery (n=39)*

Mean haemoglobin drop

- Total shoulder = mean Hb drop 15.1 g/L
- Reverse shoulder = mean Hb drop 18.9 g/L
- No patients required blood transfusion

