PERI-OPERATIVE TECHNIQUES IN BLOODLESS SURGERY – A REFRESHER AND UPDATE

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Anaemia is a common finding in trauma, surgical, critically ill and pregnant patients. Most patients with anaemia receive blood transfusion for correction. However, peri-operative blood transfusion is associated with complications. Again, the supply of blood is decreasing coupled with increasing cost. Various blood conservation techniques can reduce allogeneic blood transfusion, reduce risks, conserve blood supply and also decrease the length of hospital stay and cost of hospitalization. Bloodless surgery is a comprehensive peri-operative approach that improves patient outcomes through the avoidance of allogeneic blood transfusion.

Blood conservation is a combination of strategies to avoid the transfusion of allogeneic blood and to improve its oxygen-carrying capacity. It is a team effort involving surgeons, anaesthetists, haematologists, intensivists, pharmacists, technicians, operating room and ward nurses among others. There are pharmacologic and non-pharmacologic strategies.

Patient blood management (PBM) is a clinical concept to prevent unnecessary transfusions for improved patient safety and outcomes. It is a multimodal, multidisciplinary approach that requires anaesthetic, medical, haematologic and surgical collaboration. PBM has been developed as an evolving evidence-based approach with a number of key goals:

1. To identify, evaluate, and manage anaemia
2. To reduce iatrogenic blood loss
3. To optimize haemostasis, and
4. To establish decision thresholds for transfusion

In conclusion, blood conservation strategies and PBM improve perioperative patient safety and outcomes. Though blood transfusion is lifesaving its administration to patients increases morbidity and mortality. Therefore, all peri-operative health professionals should collaborate among themselves to practice blood conservation strategies for the patient well-being.

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