Enhanced recovery after anaesthesia (ERAA) protocols must be followed in all surgeries

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Danish Professor Henrik Kehlet, a colorectal surgeon, questioned traditional perioperative care, including prolonged fasting, restricted mobility, bowel preparation, prolonged use of drains and a gradual return to oral nutrition after surgery.^[1] His initiative led to the coining of the term 'Enhanced Recovery After Surgery' (ERAS). Over the years, the ERAS protocol became popular in the entire spectrum of surgery. The popularity of ERAS promoted changes in anaesthesia protocols to support the programme. Anaesthesiologists modified their protocols to appreciate the outcomes and reap the benefits of the enhanced recovery protocols. The protocols were implemented for all patients' daily practice, irrespective of whether the surgical team followed ERAS or conventional surgery. There is a need to recognise this enhanced recovery protocol as a separate entity named 'Enhanced Recovery After Anaesthesia' (ERAA).

Not all patients are taken up for ERAS; many surgeons still follow traditional methods. Many patients are not ideal candidates for ERAS and are operated using conventional surgical protocols. The enhanced recovery anaesthesia pathway is an evidence-based perioperative care and quality improvement initiative that promotes early patient mobilisation, reduced respiratory complications, decreased hospital length of stay and reduced costs. Its objective is to maintain normal patient physiology; any patient undergoing surgery will benefit from the approach.^[2] The primary responsibility of ensuring the return of normal physiology is of anaesthesiologist, and thus, it would be appropriate to term the protocol ERAA.

Enhanced recovery protocols recommend preoperative optimisation, nutritional counselling, prehabilitation and stopping smoking/alcohol before surgery.^[3] These benefits are well established, and patients undergoing conventional surgery also benefit from them. Supplemental nutrition before surgery reduces complications and improves outcomes. The enhanced recovery guidelines encourage solid food intake up to 6 h and clear fluids up to 2 h before surgery. This preoperative fasting protocol has been incorporated in the recent guidelines of all major anaesthesia professional societies.^[4] Many randomised controlled trials, systematic reviews and meta-analyses have demonstrated the benefits of carbohydrate loading before surgery, which include increased insulin sensitivity, reduced postoperative inflammation, shorter length of hospital stay and improved patient-reported outcomes.^[5] The advantage of preoperative carbohydrate and fluid loading has been passed on to all surgical patients and is no longer restricted to those with ERAS. The benefits of maintaining normovolaemia and normothermia were initially restricted to patients for ERAS, but are now given to all. Goal-directed fluid therapy benefits

long-duration surgeries involving fluid shifts and gut handling, which traditionally follow conventional surgical protocols.^[6]

Intraoperative and postoperative pain management is an essential component of anaesthesia. Multimodal analgesia, with less dependence on opioids, was initially proposed for ERAS for early recovery. As a fallout of the opioid epidemic in the Western world, increased use of non-opioid analgesics is the norm in conventional surgery in most parts of the world. Regional procedure-specific blocks are now increasingly used in all surgeries, and traditional systemic analgesics are being phased out.

Early oral feeding is associated with accelerated return of bowel function. Most studies on ERAS have defined a protocol of clear fluids immediately after surgery, with a timely advance to standard diet as tolerated.^[7] A systematic review of 81 studies found that patients chewing gum postoperatively had a faster onset of the first flatus and bowel movement and a reduced hospital stay. Rapid progression to oral intake avoids fluid overload and improves mobilisation.^[8] Patients undergoing conventional surgeries need to share these benefits.

The most significant benefit of ERAS implementation is its impact on the patient experience. Increased ERAS compliance has ensured higher patient satisfaction and Quality of Recovery-15 scores in the dimensions of physical comfort, physical independence and pain.^[9] ERAS has set a new standard of care and created a safe roadmap for the perioperative journey. The enhanced safety and benefits of these protocols should be given to all surgical patients, and we should term the protocol 'Enhanced Recovery After Anaesthesia'.

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REFERENCES

- 1. Ljungqvist O. ERAS–enhanced recovery after surgery: Moving evidence-based perioperative care to practice. JPEN J Parenter Enteral Nutr 2014;38:559-66.
- Altman AD, Helpman L, McGee J, Samouëlian V, Auclair MH, Brar H, et al. Enhanced recovery after surgery: Implementing a new standard of surgical care. CMAJ 2019;191:E469-75.
- Gustafsson UO, Scott MJ, Schwenk W, Demartines N, Roulin D, Francis N, *et al.* Guidelines for perioperative care in elective colonic surgery: Enhanced Recovery After Surgery (ERAS(®)) Society recommendations. World J Surg 2013;37:259-84.
- 4. Dongare PA, Bhaskar SB, Harsoor SS, Garg R, Kannan S, Goneppanavar U, *et al.* Perioperative fasting and feeding in adults, obstetric, paediatric and bariatric population: Practice Guidelines from the Indian Society of Anaesthesiologists. Indian J Anaesth. 2020;64:556-84.
- Smith MD, McCall J, Plank L, Herbison GP, Soop M, Nygren J. Preoperative carbohydrate treatment for enhancing recovery after elective surgery. Cochrane Database Syst Rev 2014;2014:CD009161. doi: 10.1002/14651858.CD009161. pub
- 6. Chattopadhyay S, Mittal S, Christian S, Terblanche AL, Patel A, Biliatis I, *et al.* The role of intraoperative fluid optimisation using the esophageal Doppler in advanced gynecological cancer: Early postoperative recovery and fitness for discharge. Int J Gynecol Cancer 2013;23:199-207.
- Frisch A, Chandra P, Smiley D, Peng L, Rizzo M, Gatcliffe C, et al. Prevalence and clinical outcome of hyperglycemia in the perioperative period in noncardiac surgery. Diabetes Care 2010;33:1783-8.
- Padhi S, Bullock I, Li L, Stroud M; National Institute for Health and Care Excellence (NICE) Guideline Development Group. Intravenous fluid therapy for adults in hospital: Summary of NICE guidance. BMJ 2013;347:f7073. doi: 10.1136/bmj.f7073.
- 9. Shen Y, Lv F, Min S, Wu G, Jin J, Gong Y, *et al.* Impact of enhanced recovery after surgery protocol compliance on patients' outcome in benign hysterectomy and establishment of a predictive nomogram model. BMC Anesthesiol 2021;21:289. doi: 10.1186/s12871-021-01509-0

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