Enhanced recovery after surgery (eras): a systemic review of perioperative care for patients undergoing obstetric surgery

Authors: <u>Jeffrey Huang</u>, MD¹, Cathy Cao, MD²

- ¹ Anesthesiologists of Greater Orlando & University of Central Florida, Orlando, FL
- ² Department of Anesthesiology, Medstar Washington Hospital Center, Washington DC

Background

There has been an exponentially accumulative of evidence to support the clinical success of ERAS for a wide range of surgical procedures. There has been little implementation of ERAS in obstetric surgery. Recent study demonstrated that an enhanced recovery pathway can be successfully integrated into labor delivery unit. The aim of the review is to provide an evidence-based protocol for optimal perioperative care of patients undergoing obstetric surgery.

Methods

We review the recent literatures on enhanced recovery, fast track surgery of obstetric surgery. These studies included randomized controlled studies, prospective cohort studies, nonrandomized controlled studies, Meta analyses, systematic reviews, reviews, and case.

Results

Many ERAS elements can be or have been applied to obstetric surgery. These elements include patient education, preoperative optimization, prophylaxis against thromboembolism, antimicrobial prophylaxis, postop nausea vomiting prevention, hypothermia prevention perioperative fluid management, postoperative analgesia, prevention of Ileus, breast feeding promotion, and early mobilization. The available evidence supported that ERAS can enhance recovery, reduce length of stay, and lower the cost.

Conclusions

Based on the evidences for each element, ERAS can be implemented in obstetric surgery. The implementation depends on multidisciplinary coordination at preoperative, intraoperative and postoperative phases.

Figure 1. ERAS elements for cesarean section

Pre-delivery

- Patient Education
- •Preoperative optimization
- Preoperative fasting and carbohydrate treatment
- Timing of surgery

During Delivery

- •Thromboembolism prevention
- Antimicrobial prophylaxis and skin preparation
- •Anesthetic Choice
- Fluid optimization
- Prophylaxis against nausea and vomiting
- •Prevention of hypothermia
- Oxytocin dose
- •Baby-friendly skinto-skin contact

ost Delivery

- Multimodal analgesia
- •Early drinking and eating
- Early removal urinary catheter
- Early mobilization
- Early breastfeeding
- Prevention of Ileus
- Post-discharge rehabilitation and community care