The Enhanced Recovery after surgery (ERAS) Society Guidelines for Enhanced recovery after cesarean section (ERACS)

Dr. Medhat M. Shalabi MB BCH, MSc., DA (UK), MD, FRCA, CCST.

Consultant Anesthesiologist,

Head of Anesthesiology & Intensive Care Department.

AL ZAHRA PRIVATE HOSPITAL DUBAI
The Healing Touch
الزهراء المستشفى الخاص بدبي

Objectives:

1. Brief orientation of the ERAS concept in general
2. Explanation of how ERAS concept was used only for Major Surgical procedures, and how myself and other enthusiastic colleagues determined to apply the ERAS concept in other non- Major Surgical procedures, as cesarean section is one of the most commonly performed surgical procedures worldwide , it was chosen as an excellent example of how to implement ERAS in hospitals.
3. ERACS similar to ERAS is divided into :
   i. Preoperative components
   ii. Intra- operative components
   iii. Post- operative components

A full explanation of all relevant ERACS components will be given during the lecture .

Conclusions :

4. In U.K. a response rate of 81% was achieved with 96% of those who responded supporting the concept of enhanced recovery. Only 4% of units routinely discharged their patients on day one. There were a number of practices consistent with enhanced recovery. Postoperative pain was controlled by regular paracetamol (97%) and non-steroidal anti-inflammatory drugs (100% when not contraindicated), with oral opioids (68%) being used for breakthrough pain. Over 70% of units allowed minimal interruption of Perioperative oral

intake and 72% of units mobilized their patients within 12h of surgery or when the neuraxial block had worn off. In contrast, a minority of units monitored patient temperature in theatre (27%) or used active warming (18%), and 28% routinely removed the urinary catheter within 12h of surgery or when the neuraxial block had worn off. Regarding neonatal recovery, only 23% reported using delayed cord clamping and 53% used skin-to-skin contact in theatre.

5. Most obstetric units support the concept of enhanced recovery following caesarean section and many could introduce a programme for elective surgery with relatively small changes in patient care. Specific questions on elements described in other obstetric ERAS protocols for CD included preoperative patient preparation, type of anesthesia and temperature monitoring used for CD, maternal/neonatal contact, and time to discharge. ERAS protocols are used in 24% of surveyed hospitals, 84% admit the patient the day before elective CDs, 87% use a maternal bowel preparation morning on the day of CD, and 80% administer maternal deep venous thrombosis prophylaxis. Only 33% remove IV in the first postoperative day, and 89% of women do not eat solid food until the day following their CD.
6.

The guidelines of the ERAS Society for ERACS provide an evidence based , standardized , multidisciplinary , and Teamwork protocol for the peri – operative care given to ladies under going for CSs . Adoption of ERAS protocols following CD might benefit patients and the health-care system.

These guidelines avoid the marked worldwide variations in the peri-operative care given for ladies undergoing Cesarean Section, improve significantly the quality of care given to them, and at the same times achieve a significant cost reduction through a reduction in the length of hospital stay and in complications rate .

References

1. Wilmore D, Kehlet H. Management of patients in fast track surgery. BMJ (2001) 322:473.10.1136/bmj.322.7284.473 [PMC free

article] [PubMed] [Cross Ref]

2. Fearona KC, Ljungqvist O, Von Meyenfeldt M, Revhaug A, Dejong CH, Lassen K, et al. Enhanced recovery after surgery: a consensus review of clinical care for patients undergoing colonic resection. Clin Nutr (2005) 24:466–447.10.1016/j.clnu.2005.02.002 [PubMed] [Cross Ref]

3. Kehlet H, Wilmore DW. Evidence-based surgical care and the evolution of fast-track surgery. Ann Surg(2008) 248(2):189.10.1097/SLA.0b013e31817f2c1a [PubMed] [Cross Ref]

4. Ljungqvist O, Scott M, Fearon KC. Enhanced recovery after surgery: a review. JAMA
Surg (2017) 152:292–8.10.1001/jamasurg.2016.4952 [PubMed] [Cross Ref]

5. Nygren J, Thacker J, Carli F, Fearon KC, Norderval S, Lobo DN, et al. Guidelines for perioperative care in elective rectal/pelvic surgery: enhanced recovery after surgery (ERAS) society recommendations. World J
Surg (2013) 37:285–305.10.1007/s00268-012-1787-6 [PubMed] [Cross Ref]

6. Lassen K, Coolsen MM, Slim K, Carli F, de Aguilar-Nascimento JE, Schäfer M, et al. Guidelines for perioperative care for pancreaticoduodenectomy: enhanced recovery after surgery (ERAS®) society recommendations. World J Surg (2013) 37:240–58.10.1007/s00268-012-1771-1 [PubMed] [Cross Ref]

7. Cerantola Y, Valerio M, Persson B, Jichlinski P, Ljungqvist O, Hubner M, et al. Guidelines for perioperative care after radical cystectomy for bladder cancer: enhanced recovery after surgery (ERAS®) society recommendations. Clin Nutr (2013) 32:879–87.10.1016/j.clnu.2013.09.014 [PubMed] [Cross Ref]

8. Nelson G, Altman AD, Nick A, Meyer LA, Ramirez PT, Achtari C, et al. Guidelines for pre- and intra-operative care in gynecologic/oncology surgery: enhanced recovery after surgery (ERAS®) society recommendations – part I. Gynecol

Oncol (2016) 140(2):313–22.10.1016/j.ygyno.2015.11.015 [PubMed] [Cross Ref]

9. Wang C, Zheng G, Zhang W, Zhang F, Lv S, Wang A, et al. Enhanced recovery after surgery programs for liver resection: a meta-analysis. J Gastrointest Surg (2017) 21(3):472–448.10.1007/s11605-017-3360-y[PubMed] [Cross Ref]

10. Spanjersberg WR, Reurings J, Keus F, van Laarhoven CJ. Fast track surgery versus conventional recovery strategies for colorectal surgery. Cochrane Database Syst Rev (2011) 16(2):CD0077635.10.1002/14651858.CD007635.pub2 [PubMed] [Cross Ref]

11. Paton F, Chambers D, Wilson P, Eastwood A, Craig D, Fox D, et al. Initiatives to reduce the length of stay in acute hospital settings: a rapid synthesis of evidence relating to enhanced recovery programmes. Health Serv Delivery Res (2014) 2(21):434–75.10.3310/hsdr02210 [PubMed] [Cross Ref]

12. Maessen J, Dejong CH, Hausel J, Nygren J, Lassen K, Andersen J, et al. A protocol is not enough to implement an enhanced recovery program for colorectal resection. Br J Surg (2007) 94(2):224–31.10.1002/bjs.5468 [PubMed] [Cross Ref]

13. Corso E, Hind D, Beever D, Fuller G, Wilson M, Wrench IJ, et al. Enhanced recovery after elective caesarean: a rapid review of clinical protocols, and an umbrella review of systematic reviews. BMC Pregnancy Childbirth (2017) 17:91–100.10.1186/s12884-017-1265-0 [PMC free article] [PubMed][Cross Ref]

14. National Institute for Health and Care Excellence. Clinical Guideline 132: Caesarean Section. (2017). Available from: https://www.nice.org.uk/guidance/cg132/evidence (Accessed: April, 2018).

15. Chiong TP, Jin NM, Zawiah OS. Hospital discharge on the first compared with the second day after a planned cesarean delivery. Obstet

Gynecol (2012) 120:1273–82.10.1097/AOG.0b013e3182723a95[PubMed] [Cross Ref]

16. Wrench IJ, Allison A, Galimberti A, Radley S, Wilson MJ. Introduction of enhanced recovery for elective caesarean section enabling next day discharge: a tertiary centre experience. Int J Obstet Anesth(2015) 24(2):124–30.10.1016/j.ijoa.2015.01.003 [PubMed] [Cross Ref]

17. Lucas DN, Gough KL. Enhanced recovery in obstetrics – a new frontier? Int J Obstet Anesth (2013) 22:92–5.10.1016/j.ijoa.2013.08.001 [PubMed] [Cross Ref]

18. Vickers R, Das B. Enhanced recovery in obstetrics. Int J Obstet Anesth (2013) 22:349.10.1016/j.ijoa.2013.05.011 [PubMed] [Cross Ref]

19. Abell D, Long O, Skelton V, Penna L, Dasan J, Sharafudeen S. Enhanced recovery in obstetrics. Int J Obstet Anesth (2013) 22:349–50.10.1016/j.ijoa.2013.05.001 [PubMed] [Cross Ref]

20. Pilkington L, Curpad S, Parveen S. Enhanced recovery after surgery (ERAS) in obstetrics in Royal Gwent Hospital. Eur J Obstet Gynecol Reprod Biol (2016) 206:e92.10.1016/j.ejogrb.2016.07.247 [Cross Ref]

21. Coates E, Fuller G, Hind D, Wrench IJ, Wilson MJ, Stephens T. Enhanced recovery pathway for elective caesarean section. Int J Obstet Anesth (2016) 27:94–5.10.1016/j.ijoa.2016.05.005 [PubMed] [Cross Ref]

22. Aluri S, Wrench IJ. Enhanced recovery from obstetric surgery: a UK survey of practice. Int J Obstet Anesth (2014) 23(2):157–