

The first 24 hours after surgery: how an anesthetist, a surgeon and a nurse would like to be treated if they were patients

L. Beretta, M. Braga, U. Casiraghi

*Anesthesia and Neurointensive Care; Department of Surgery, Scientific Institute OSR,
 Milan, Italy*

Over the last 20 years improvements in surgical and anesthesiological techniques have reduced mortality, morbidity and the length of hospital stay. Despite these considerable efforts, a great number of patients still develop perioperative complications. The ERAS (Enhanced Recovery After Surgery) concept aims to apply an evidence-based, standardized perioperative care protocol instead of traditional management based on habits (1).

The philosophy behind the protocol can be summarized in two crucial points:

1. the knowledge of factors that can lead to complications in surgical patients;
2. the application of a specific strategy during the perioperative period aimed at patient well being with swift recovery after surgical stress.

In order to put this idea into practice a team of healthcare professionals is required, made up not only of surgeons, anesthesiologists and nurses, but also of physiotherapists, nutritionists and administrative staff. The program is developed during those phases where the patient is involved, namely the pre-operative, intra-operative and post-operative periods:

- 1) pre-operative: evaluation of the patient's physical, nutritional and mental status, with patient participation through counseling with the surgeon, anesthetist and nurse;
- 2) intra-operative: mini-invasive surgery, anesthesia with short acting drugs avoiding fluids overload and, if possible, regional anesthesia;
- 3) post-operative: pain control, early nutrition and mobilization.

Corresponding author:
 Luigi Beretta, MD
 Anesthesia and Neurointensive Care
 Ospedale San Raffaele
 Via Olgettina, 60 - 20132 Milan, Italy

Retrospective and prospective randomized studies support the growing evidence that an integrated multimodal approach to perioperative care can result in overall enhancement of recovery, reducing complications and length of stay.

The anesthesiologist

I would like to have received general anesthesia with short-acting drugs and without premedication, to guarantee a more rapid emergence from the anesthetic state, together with specific myorelaxant antagonists to preclude post-operative residual paralysis, respiratory complications, and infections. General anesthesia, associated with locoregional anesthesia whenever possible, offers many advantages. Using local anesthetics (peripheral nerve or plexus blocks, epidural or spinal anesthesia) during surgery reduces the amount of morphine needed and provides better pain control. Nausea and vomiting occur less often, and I will be able to eat and drink sooner, which will help me to have a quicker recovery.

I am sure that if the infusion of fluids had been controlled during surgery to avoid their overload, my tissues would be less edematous, and the surgical anastomosis would be better preserved. In fact, intravenous crystalloid fluids expand into the interstitial volume, rather than into intravascular space, during surgical stress. I should not have to suffer pain. Pain after elective surgery is “programmed” and harmful, and it has to be measured and treated to avoid, whenever possible, the use of morphine.

The multimodality approach (2) can lead to better pain control and preclude complications. Without pain, my post-surgery stress response, anxiety, and discomfort will be reduced; I will be able to leave my room, drink and eat food, which will probably mean that I will be discharged from hospital earlier.

The surgeon

Although we surgeons are used to dealing with patients undergoing surgery, the scenario would change totally should we ourselves become the patient. We would find ourselves on the other side of the knife, so to speak. I, as a patient, would definitely hope to meet a team prepared to spend a lot of time talking about the scheduled process of care, and clarifying all details concerning the procedure. In fact, a relevant source of anxiety in patients undergoing surgery is generated by their not knowing what will happen before, during, and after the operation. Concerns about the possible occurrence of postoperative complications, long-term sequelae, and quality of life after surgery need to be addressed specifically. Preoperative counseling and postoperative communication are, therefore, key-points.

Besides technical skill and the volume of activity, a crucial issue for

selecting a surgeon is her/his attitude to planning an evidence-based mini-invasive perioperative care pathway.

Whenever possible, a laparoscopic approach and a bloodless gentle technique would be preferable. The literature reports that reduced surgical invasiveness is associated with lower metabolic stress, which often means lower postoperative complication rates and reduced costs (3). Moreover, in the majority of surgical procedures drains should not be placed routinely, unless specific reasons make the surgeon drain the surgical field. Drains usually impair a patient's mobility, and a prolonged stay in bed is one of the principal causes of postoperative complications. During the postoperative period, nasogastric tubes should be removed at the end of procedure, in accordance with recent guidelines. Decompression nasogastric tubes cause obvious patient discomfort, a higher risk of respiratory infection, and delayed gastric emptying.

The nurse

I would prefer that the urinary catheter they inserted with antiseptic maintenance and close drainage system had had the proper evaluation of risks and benefits. I also hope that it will be removed as soon as it is not necessary, preferably within 24 hours, to minimize catheter-associated urinary tract infection, and to permit easier mobilization and less discomfort.

If I am left lying on a bed for a long time after surgery I might suffer a series of severe complications, such as postoperative ileus, infections, thromboembolism and pulmonary embolism due to venostasis, respiratory complications and the reduction of tissue oxygenation, cardiac complications, and muscle tissue loss. It is therefore necessary to get me out of bed within 24 hours after the end of surgery, so I can walk and autonomously carry out normal everyday activities as soon as possible. Following minor surgery, I would like to be mobile on the day of surgery itself. This strategy requires pain control, correct infusion and pressure management, and the reduction of catheters, drains, pumps and infusion systems. Furthermore, I need dedicated spaces on the ward where I can eat, meet people, and watch television outside my room.

As for prolonged fasting before surgery, avoiding the intake of solids after surgery is not evidence based. There is no reason why I should remain "nil by mouth" after surgery (4), even after gastrointestinal surgery as this traditional practice induces protein catabolism. I want to start eating and drinking as soon as possible after surgery, because early feeding is safe and reduces the risk of infection, anastomotic dehiscence, muscle loss, the length of postoperative ileus, together with the duration of hospitalization. However, it increases the incidence of vomit, and for this reason I will undergo post operative nausea and vomit prevention treatment.

1. Lassen K, Soop M, Nygren J, et al. Consensus review of optimal perioperative care in colorectal surgery: enhanced Recovery After Surgery (ERAS) Group recommendations. *Arch Surg* 2009; 144: 961-9.
2. White PF, Kehlet H, Neal JM, et al; Fast-Track Surgery Study Group. The role of the anesthesiologist in fast-track surgery: from multimodal analgesia to perioperative medical care. *AnesthAnalg* 2007; 104: 1380-96.
3. Braga M, Vignali A, Zuliani W, et al. Laparoscopic versus open colorectal surgery. Cost-benefit analysis in a single-center randomized trial. *Ann Surg* 2005; 242: 890-896.
4. Lewis SJ, Egger M, Sylvester PA, Thomas S. Early enteral feeding versus "nil by mouth" after gastrointestinal surgery: systematic review and meta-analysis of controlled trials. *BMJ* 2001; 323: 773-6.

Cite this article as: Beretta L, Braga M, Casiraghi U. The first 24 hours after surgery: how an anesthetist, a surgeon and a nurse would like to be treated if they were patients. *HSR Proceedings in Intensive Care and Cardiovascular Anesthesia* 2012; 4(3): 149-152

Source of Support: Nil. **Conflict of interest:** None declared