

# Are we ready for the implantation of the ERAS protocol?

## *Estamos realmente prontos para a implantação do protocolo ERAS?*

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The concept of Enhanced Recovery After Surgery (ERAS) was introduced in the late 1990s. It consists of the implementation of specific interventions in the peri-operative period, aiming to improve patient recovery, shorten hospitalization period and decrease postoperative morbidity and, consequently, costs<sup>1</sup>.

Colorectal surgery was the first area to implement ERAS early in the new century. Preliminary studies showed the viability and benefits of this new strategy<sup>2</sup>. Laparoscopic surgery, due to its minimal invasiveness, has become an important ally of ERAS. Other areas followed the same path, such as bariatric, hepatic, bilio-pancreatic and others<sup>3,4</sup>.

The ERAS Study Group became the ERAS Society in 2010 and the first ERAS congress took place in Cannes, France in 2012, followed by others in Spain, United States and Portugal. Guidelines on the subject have appeared in the literature supported by medical societies and dozens of publications. The ERAS Society itself provides more than a dozen of them in a number of areas, including colorectal surgery, bariatric surgery, gynecological oncology, and pancreatoduodenectomies.

In general, the measures are divided into three groups: preoperative, intraoperative and postoperative. Preoperative protocols include the absence of preanesthetic medication, non-prolonged fasting, and non-preparation of the colon in colorectal surgery. In the intraoperative period, the use of short acting anesthetics and absence of drains in most procedures are some of the most common recommendations. Finally, in the postoperative period, early removal of catheters, non-use of a nasogastric catheter, early mobilization and early introduction of oral diet are part of the protocol.

In Brazil, the ERAS protocol became the ACERTO project (“ACEleração da Recuperação TOrtal postoperatória”) and follows a similar path, with the accomplishment of events and support for the implementation of the program.

The search for efficiency, with the objective of offering the best for the lowest cost, must be permanent in health. Is the ERAS protocol really the most efficient way to take care of our surgical patients? What evidence do we have today?

When it comes to treatment, evidence-based institutions such as the Evidence-Based Medicine Center at the University of Oxford define as evidence of level 1A those resulting from systematic reviews of randomized controlled trials. Malczak *et al.*<sup>5</sup> published the first systematic review with meta-analysis on ERAS and bariatric surgery in 2017. The conclusion is that there is a reduction in hospitalization time, without, however, a clear advantage related to rehospitalization, morbidity, fistulas and major or minor complications. The authors also point out that most of the eleven primary papers analyzed are at high risk of some bias and that further investigations are necessary. Abeles *et al.*<sup>6</sup>, in a recent publication in the World Journal of Gastrointestinal Surgery, emphasize that the initial evidence was contradictory and based on observational, low-level evidence. In the most recent randomized clinical trials, the results that really mean advances have been difficult to measure.

In addition to all this, we must also consider the differences in health systems where the protocol is implemented. The Bloomberg<sup>7</sup> Health Efficiency Index puts Brazil in the 54th place among the 55 countries surveyed. Most European countries, where the ERAS protocol was developed, are more efficient than Brazil.

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Internally, we still have a continental country, with regional differences and, mainly, gaps between the public and private health systems. In the Unified Health System (SUS), after hospital discharge, a possible need to return to a health unit must be done through the Emergency Units. In 2003, the Brazilian government, through the Ministry of Health, instituted the National Emergency and Urgency Policy, with the objective of structuring and organizing the emergency network in the country<sup>8</sup>. Attendance Units, structures of intermediate complexity, are the gateway to the system. Medical Regulation and its Regulatory Centers are the decision-makers. Nevertheless, the absence of an electronic and integrated medical information system contributes to the delay in cases whose complications depend on specialized assessment and treatment.

In supplementary health, the problems are other. We have a care model focused on the doctor. Although we have advanced institutional protocols, with hospitalist doctors (working with inpatients) and with referral services, the doctor, especially the surgeon, is the patient's "owner". He/she defines

conduct and assumes responsibility. It is often his/her telephone, and his/her team's one, the patient's access to the health care system after discharge. Bariatric or colorectal surgeries, whether outpatient or near-ambulatory, place the surgeon on the front line in assessing any signs and symptoms reported by telephone or post-discharge messages.

The judicialization of medicine is another important issue. We went from 240,000 suits related to public or supplementary health in 2012, to more than 850,000 in 2015, according to a report by the National Council of Justice. So the better the evidence for a new practice, the safer we will all be, doctors and patients.

Therefore, the search for efficient solutions for the system continues. The ERAS protocol may be one of them. However, more and more evidence needs to be built to attest to the real advantages of this method, which need to go beyond a shorter hospital stay. In addition, adaptations to the realities of our health systems are fundamental for us to walk safely in the implementation of this advance.

## REFERENCES

1. Kehlet H. Multimodal approach to control postoperative pathophysiology and rehabilitation. *Br J Anesth.* 1997;78(5):606-17.
2. Basse L, Hjort Jakobsen D, Billesbølle P, Werner M, Kehlet H. A clinical pathway to accelerate recovery after colonic resection. *Ann Surg.* 2000;232(1):51-7.
3. Matlok M, Pedziwiatr M, Major P, Klek S, Budzynski P, Malczak P. One hundred seventy-nine consecutive bariatric operations after introduction of protocol inspired by the principles of enhanced recovery after surgery (ERAS®) in bariatric surgery. *Med Sci Monit.* 2015;21:791-7.
4. van Dam RM, Wong-Lun-Hing EM, van Breukelen GJ, Stoot JH, van der Vorst JR, Bemelmans MH, Olde Damink SW, Lassen K, Dejong CH; ORANGE II Study Group. Open versus laparoscopic left lateral hepatic sectionectomy within an enhanced recovery ERAS® programme (ORANGE II-trial): study protocol for a randomised controlled trial. *Trials.* 2012;13:54.
5. Malczak P, Pisarska M, Piotr M, Wysocki M, Budzynski A, Pedziwiatr M. Enhanced recovery after bariatric surgery: systematic review and meta-analysis. *Obes Surg.* 2017;27(1):226-35.
6. Abeles A, Kwasnicki RM, Darzi A. Enhanced recovery after surgery: Current research insights and future direction. *World J Gastrointest Surg.* 2017;9(2):37-45.
7. Du L, Lu W. U.S. Health-Care System Ranks as one of the least-efficient [Internet]. Bloomberg: New York, 2016. Available from: <https://www.bloomberg.com/news/articles/2016-09-29/u-s-health-care-system-ranks-as-one-of-the-least-efficient>
8. Brasil. Ministério da Saúde. Política nacional de atenção às urgências. 3a ed. Brasília: Ministério da Saúde; 2006.