Enhanced recovery after surgery pathways in gynecologic surgery: great strides already, but more still to come

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Enhanced recovery after surgery (ERAS) has revolutionized the peri-operative care of patients undergoing major elective surgery over the last two decades. Its principle pioneer, Henrik Kehlet, a Danish surgeon, established a philosophy to provide a multidisciplinary, multimodal approach to patient care pathways to minimize peri-operative physiologic dysfunction and the surgical stress response, resulting in a swifter return to normal function.

Initially there was a focus in colorectal surgery but more recently the concept has been embraced by many other specialties including orthopedics, esophagogastric, hepatobiliary, urology, gynecology, bariatric, head and neck, and thoracic and obstetrics surgeries.¹ Of interest and relevance here is that gynecologic oncology surgery is major, complex surgery that interfaces with 'benign' gynecology, colorectal, and urology so it occupies a central role within ERAS guidelines.

An early driver for ERAS was to reduce hospital length of stay. One reason for this was that this is a universally measured metric and reductions in hospital stay have benefits for patients, clinicians, and managers² provided that re-admissions are not increased as a result. However, there are now data that not only support reduced re-admissions, but demonstrate that there is a wealth of other benefits for ERAS patients, including reduced complications, improved outcome, and reduced costs.³ The link between complications and outcome is well known,⁴ and as ERAS becomes more established, we are now beginning to see data showing that longer-term outcomes are improved, for example in patients with colorectal cancer on ERAS programs.⁵ These findings may be partly due to reduced early complications, but in addition there may be effects of long-term preservation of immune function and because patients are fit enough to tolerate other adjuvant treatments more quickly such as chemotherapy and radiotherapy.²

In this month's journal, the guidelines for gynecologic surgery are revised and updated⁶ and provide an important time to reflect on what is new. As the ERAS evidence base grows, so the grade of evidence

may change as well as new evidence emerging to further improve patient care. The latter includes the emerging area of prehabilitation, as well as pelvic exenteration and hyperthermic intra-peritoneal chemotherapy. It is good to see focus on the post-operative period such as discharge pathways and patient-reported outcomes. In addition, the post-operative period is viewed as probably the most difficult area to implement, yet when successfully undertaken is most strongly associated with good outcomes, such as early removal of urinary catheters, ambulation, and oral feeding.^{7,8}

While our knowledge of ERAS will continue to move forward with well-conducted standardized studies,⁹ and with good pathway adherence required to derive the maximal benefits, it must also be borne in mind that evidence for some of the pathways is now less compelling.^{10,11} Crucially, there is much that individual institutions can achieve, in particular by collecting good-quality audit data and comparing this with recognized centers of excellence.⁸ Moreover, it is not enough to know what to do in theory; it is the continued practical implementation of ERAS that is essential. Finally, as the benefits of ERAS are recognized, the concepts need to be taught more widely, not only at postgraduate level, but to undergraduates too.

We have come a long way in the last 20 years from the concept popularized by Henrik Kehlet, but safe, quality care is always the goal – as Kehlet himself says: "First do it better, then do it quicker".

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