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EDITORIAL PERSPECTIVE

The Post COVID-19 Surgical Backlog: Now is the Time to Implement Enhanced Recovery After Surgery (ERAS)

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The COVID-19 pandemic has taken an unimaginable toll on human life, economy and the healthcare system. As a surgical community, this required implementing drastic changes including rapid adoption of triage algorithms to guide cancellation or postponement of surgeries.

Current estimates are that more than 28 million surgeries have been cancelled or postponed during the first peak 12 weeks of the pandemic [1]. While the majority of these cancelled operations were for benign disease, a significant percentage was for cancer [1]. Just as triage algorithms for cancellation and postponement were devised during the pandemic, so too now must we develop strategies to address the surgical backlog as we begin to emerge from this crisis. Provided a 20% increase in baseline surgical volume is possible, it would take nearly a year (median of 45 weeks) to clear the surgical case backlog [1]. This expansion of surgeries has to take place during a time when national and regional economies are under maximum pressure, and many healthcare professionals furloughed. One of the key questions facing surgeons, anaesthesiologists and healthcare administrators is where will hospitals find this increased capacity? And when?

The answer is Enhanced Recovery After Surgery (ERAS).

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There are several undeniable and important reasons why ERAS should be applied now worldwide; ERAS has repeatedly been shown all over the world to reduce complications (reduced by 20–50%), bringing down the need for hospital care from weeks to days without increasing the readmission rate and minimizing need for care in the ICU. In addition, ERAS allows health cost saving between 5000 and 8000 USD per case in major surgery with a return on investment (ROI) ratio $\approx$ 4 [2, 3]. Despite these proven benefits, ERAS is still not main stream practice, even if many surgeons claim that they "do ERAS" and some key opinion leading surgeons may believe it is done everywhere for years. ERAS is not being done everywhere—this becomes obvious when reviewing length of stay from national data registries from highly developed countries such as Germany [4], Japan [5] and France [6] all with length of stay after colorectal surgery exceeding 10 days (with some averaging length of stay as high as 24.7 days) and compared with reports from large consecutive cohorts with demonstrated real ERAS protocols in place where length of stay is 5 days [7]. In a recent ACS-NSQIP study, 56% of patients undergoing surgery for colonic cancer still had a length of stay $\geq$ 5 days [8]. Undisputedly, the world of surgery is far from practicing true ERAS care, and if this is not recognized, it represents the main problem.

The first ERAS guideline was published 15 years ago and represented a breaking point for evidence-based perioperative care, but implementation on a large scale has been slow and guidelines alone do not lead to successful implementation of ERAS [2]. Even combined with national large-scale training using lectures has not been sufficient [7]. A major barrier to true and complete ERAS care is the lack of knowledge of the entire patient journey from the standpoint of the perioperative care team (surgeons, anaesthesiologists, nurses). Each one may know their role

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in the smaller picture, but not the importance of how the choices they make impacts the patient at a later stage. We need to stop working exclusively within our own silos! While we all like to believe we are doing the best for our patients all the time, few have the insights regarding how the entire care is given and how each person's contribution to that care impacts the overall outcomes for the patient. A very effective way of overcoming this key barrier, we have found, is through structured implementation programs and training staff in using interactive audit to assess both real application of the ERAS elements and outcomes (www.erassociety.org). This is based on an experience from implementing ERAS in 25 countries around the world over the last 10 years. To start the implementation, a new multidisciplinary team is formed, the ERAS team. The ERAS team requires at a minimum, a surgeon, an anaesthesiologist, a nurse and preferably other allied health workers including dietitians, physiotherapists and pharmacists. This team is *working in a new way*—and this is where the secret lies. They lead change by working in a new manner to steer the care forward. The process of successful ERAS involves the team auditing and reviewing critically their baseline compliance to ERAS protocols alongside their outcomes. Continuous audit is real quality control, guiding the team to make the correct care changes in order to improve compliance. This process translates to improvements in clinical outcomes and health cost savings [3]. Importantly, the ERAS way of working together offers caregivers the ability to own and manage the entire process, govern it and keep it evolving, as new knowledge for guideline updates is developed, to continuously improve care.

The COVID-19 pandemic has brought surgery and anaesthesia monumental challenges. At the same time the pandemic has given the world of healthcare important insights that can help transform our ways of delivering surgical care dramatically—if only we have the courage to look at the truth of where we are in our development of surgery (through complete audit of processes and outcomes) and dare to grasp the moment and start instituting true change. Everyone has witnessed how healthcare workers, under pressure of the new coronavirus, have proven that they can overcome the biggest hurdle to rapid improvements—making drastic changes!

The unprecedented number of cancelled and postponed surgeries now exceeds 40 million cases. This number is growing further and may become the greatest healthcare challenge ever. Healthcare systems urgently need to move forward, and surgery needs to lead the way and adopt ERAS pathways now. This is the time for doctors and nurses to join forces with their hospital managers to use this golden opportunity and change to modern care. It should be emphasized that traditional ways of working would never have managed the COVID-19 crisis. Similar agility and innovative thinking are now needed to solve the surgical backlog. Let us take advantage of lessons just learned and use this opportunity to take surgical care to the next level and massively improve patient safety and outcomes while also increasing capacity and driving down cost of care.

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