

# Setting up an enhanced recovery after surgery (ERAS) programme in gynaecological oncology in low-to middle-income countries (LMIC): the challenges and opportunities

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The International Agency for Research (IARC) has predicted a global increase of cancer by 54,5% by 2040 (Cancer Tomorrow tool), but this is more significant in low-to middle-income (LMIC) countries with a predicted increase of 88,6% in Africa. In terms of gynaecological malignancies, cervical cancer predominates in Africa and South Africa. There is a global predicted increase of 40% in both uterine and ovarian cancer by 2040, but a predicted increase of 96% and 88% of uterine and ovarian cancer in Africa, respectively.<sup>1</sup> LMIC must be strategic in their cancer care planning: this includes revisiting resources such as systems for anticancer care. This includes surgery and surgical care pre- and postoperatively.

Enhanced recovery after surgery (ERAS) is a quality and safety improvement programme in perioperative care which was established in Stockholm, Sweden in 2010.<sup>2</sup> ERAS is based on three pillars: evidence-based guidelines, an implementation programme with a multidisciplinary team, and a monitoring and evaluation and research tool. This programme has been shown to decrease postoperative complications, hospital stay and costs, and improve user experience in gynaecological oncology.<sup>3</sup> Evidence-based ERAS guidelines for preoperative and intraoperative guidelines specific to gynaecological oncology were published in 2015,<sup>4</sup> and postoperative guidelines were published in 2016.<sup>5</sup> These were updated in 2019, recognising

that there were no guidelines specific to complex procedures such as pelvic exenterations but that the principles would align with ERAS.<sup>6</sup>

Initially, ERAS was implemented at Groote Schuur Hospital, Cape Town in colorectal surgery (2017), thereafter in urology and hepatobiliary pancreatic surgery. This opportunity has now also been granted to gynaecological oncology at Groote Schuur Hospital since 2022. Many lessons have been learnt in establishing ERAS thus far.

Core to the sustainability is a dedicated nurse care coordinator who follows the entire process of the woman booked for surgery. This starts with booking an education session one month prior to surgery, optimising comorbidities and ensuring anaemia is treated, care when in hospital and postoperatively, as well as entering data into the specific monitoring databases, ERAS interactive audit system (EIAS). Challenges in South Africa include a commitment from hospital management to provide this vital nursing-dedicated post and also finding a suitable nursing sister who is enthusiastic and willing for change and training. A multidisciplinary team has to be established, and training on ERAS protocols follows. This includes clinicians (surgeons and anaesthetists), nursing staff, dieticians and physiotherapists. Identifying a lead in each discipline is vital to champion this

## Enhanced recovery after surgery

Active patient involvement		
Preoperative	Intraoperative	Postoperative
• Pre-admission education	• Active warming	• Early oral nutrition
• Early discharge planning	• Opioid-sparing technique	• Early ambulation
• Reduced fasting duration	• Surgical techniques	• Early catheter removal
• Carbohydrate loading	• Avoidance of prophylactic nasogastric (NG) tubes & drains	• Use of chewing gum
• No/selective bowel prep		• Defined discharge criteria
• Venous thromboembolism prophylaxis	• Goal directed perioperative fluid management	
• Antibiotic prophylaxis	• Pain & nausea management	
• Pre-warming		
Audit of compliance & outcomes		
Whole team involvement		

programme. This may be challenging in our country where we are often overwhelmed with the clinical burden of disease, as well as our current fiscal environment.

We collected data from 50 women booked for surgery pre-ERAS, and we are prospectively following the next 50 women where ERAS is implemented post-training as both a research project and the practical implementation of ERAS. The ERAS database requires high-speed internet or WIFI connectivity. This provided a setback initially but with adequate planning this can be overcome, and access can be via computers, tablets or smartphones.

The existence of ERAS in other disciplines at Groote Schuur is a significant advantage. The ERAS interaction also forces us to foster new relationships and break the silos that exist. Most importantly, the women we serve are provided with an opportunity for evidence-based care, and they may be empowered by being more actively involved in their health care. ERAS may actually be more beneficial in a LMIC setting, where all provinces recently had more healthcare budget restrictions. Fewer complications and shorter hospital stays will be advantageous in a country where we need to find the balance between maintaining good

perioperative care, yet doing this with an ever-decreasing healthcare budget.

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