Guidance for Improving Surgical Care and Recovery in Urogynecologic Surgery

Developed by the AUGS Quality Committee. Individual writing group members are noted in the Acknowledgment section.

Key Words: enhanced recovery, perioperative care

(*Female Pelvic Med Reconstr Surg* 2021;27: 223–224)

Enhanced Recovery and Surgery (ERAS) programs aim to improve perioperative patient care. The goal of any enhanced recovery program is to decrease the physiologic stress of surgery and to help the body mitigate the consequences of that stress. Level I evidence now supports that enhanced recovery pathways are associated with improved perioperative outcomes and should be considered standard of care in gynecology.[1,2] The term ERAS is trademarked by the Enhanced Recovery Society and the concept of "Improving Surgical Care and Recovery" (ISCR) is synonymous with ERAS. Work from the ERAS Society, the Council on Patient Safety in Women's Health care, and the Agency for Healthcare Research and Quality has provided specialty specific guidance for implementation of ERAS/ISCR tenants. In addition, literature is growing to support individual components of protocols, as well as the program as a whole.

The perioperative setting is more recently being viewed as a continuum beginning with evaluation, preoperative testing and education, shared decision making, continuing to the surgery itself, and concluding with the postoperative period. This timeline may be brief, in the setting of a minor, outpatient surgery, or prolonged in the case of a more invasive, more complex reconstructive surgery.

Implementation of ERAS/ISCR protocols has shown benefit for both minor and more complex surgical procedures, and improved compliance with guidelines is associated with an improvement in clinical outcomes.[3] Although many surgeons or institutions have implemented individual components of ERAS/ISCR protocols, full-scale implementation requires involvement of administration, anesthesia, nursing, patient caregivers, and other hospital and patient support personnel.

The purpose of this document is not to replicate the previously published articles supporting or detailing ERAS/ISCR protocols and their components. Rather, its aim is to encourage physicians and hospital systems to implement data-driven protocols and seek to provide further guidance that is specific to the urogynecology patient population. Both the ERAS society[4,5] and the Council on Patient Safety[6] provide protocol guidance for benign gynecology, vulvar and vaginal surgery, and gynecologic oncology. Although many of these protocol tenets can be easily used in pelvic reconstructive surgery, this patient population occupies a distinct niche within gynecologic surgery and, therefore, close inspection of specific ERAS/ISCR principles that apply to our patients is the goal of this document.

APPLICATION OF ISCR TO UROGYNECOLOGY

When initiating ERAS/ISCR for the urogynecologic population, 3 areas of the standard protocols deserve special consideration. In each of these areas, there are data specific to our unique patient population to guide best care. These topics include catheter management, management of geriatric patients, and postoperative pain management. The information and recommended guidelines for each of these areas is detailed as follows:

Recommendations for Catheter Management

- Adequate voiding after reconstructive pelvic surgery should be ensured before patient discharge. Subjective assessment of urinary force of stream may be a safe and reliable option after isolated mid-urethral sling.[7] Retrograde filling of the bladder (either in the operating room or in postanesthesia care unit) is a feasible option after more complex pelvic reconstructive surgery. Retrograde filling is preferred by patients (to passive filling) and may decrease postanesthesia care unit time.[8]
- Removal of urinary catheters within 24 hours should be done for most patients without lower urinary tract injury.[9–12] Same-day removal is a reasonable option for many patients with the potential for an increased risk of minor complications, such as incomplete bladder emptying and subsequent urinary tract infection.
- If present, postoperative incomplete bladder emptying can be addressed with either intermittent self-catheterization or use of indwelling catheter. Subsequent voiding trials are more likely to be successful after longer intervals postoperatively and when the patients no longer require narcotic pain medication.[13]
- Antibiotic prophylaxis may be indicated at the time of catheter removal if duration of catheter use is greater than 2 days in patients with comorbidities.[14]

Special Considerations for Perioperative Management of Adults Aged 65 Years and Older

- Preoperative considerations[15]
  - Confirm and document health care proxy, patient treatment preferences, and advance directives;
  - Consider a shortened fast allowing clear fluids up to 2 hours before surgery;
  - Stop non-essential medications before surgery.
- Intraoperative and postoperative considerations[15]
  - Consider regional anesthesia when possible;
  - Use multimodal and opioid-sparing pain management techniques, if feasible;
  - Avoid fluid overload and monitor hemodynamics
  - Monitor for signs of delirium and evaluate for precipitating causes when present;
    - Use diagnostic tools, such as the Confusion Assessment Method, to assess delirium in at-risk patients;
  - Follow universal fall precautions.
- Discharge planning[15]
  - When possible, review new discharge medications with a caregiver;
  - Consider home health care with physical and/or occupational therapy if appropriate.

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The authors have declared they have no conflicts of interest.

DOI: 10.1097/SPV.0000000000001004

Perioperative Pain Management

- Multimodal pain regimens decrease postoperative opioid use after reconstructive surgery, and many patients given multimodal analgesia will not use any opioids after discharge.[16,17]
- Use of preemptive analgesia (eg, paracervical block) is recommended for vaginal hysterectomy and can be considered for vaginal prolapse surgery.[8]
- Most patients undergoing laparoscopic or vaginal pelvic reconstructive procedures report being prescribed more postoperative opioid tablets than needed, and the median number used is less than 10 pills.[18]
- Limiting postoperative opioid prescriptions will provide adequate pain control satisfaction for most low-risk patients undergoing reconstructive surgery while reducing the number of opioids dispensed, diminishing risk of side effects, such as constipation, and lowering the risk of long-term opioid dependence.[19–23]
- In patients undergoing reconstructive surgery, increasing age has been associated with diminished opioid use.[20,24]
- Discharge prescriptions should be individualized based on the actual opioid use during hospitalization,[8,25] and should be for a short duration without refills. Patients need to be counseled on minimizing and weaning opioid use, proper storage, and appropriate disposal, including the provision of a patient education pamphlet.[26,27]

ACKNOWLEDGMENT

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