

## Evaluating Differences in ERAS implementation and its effects on opioid use by race

**Background:** Postoperative opioid use continues to contribute to the opioid crisis in the United States, particularly following major surgeries such as those in gynecologic oncology. In response, Enhanced Recovery After Surgery (ERAS) protocols have been developed and adopted to improve perioperative care. These protocols emphasize standardized, multimodal, and opioid-sparing pain management strategies.

**Objective:** ERAS protocols reduce complications, shorten hospital stays, and minimize opioid use, yet their implementation across racially diverse populations is less studied. We evaluated whether specific ERAS components, particularly preoperative acetaminophen and gabapentin, were associated with differences in postoperative opioid use by race after major gynecologic oncology surgery.

**Methods:** We performed a retrospective chart review of 160 patients undergoing major gynecologic surgery at a single academic center (July 2019–June 2020). Data included demographics, surgical approach, ERAS adherence (acetaminophen, gabapentin, NSAIDs, TAP block), and opioid use (inpatient, discharge, 30-day), standardized to oral morphine equivalents (OME). Multivariable general linear models evaluated associations between ERAS adherence and opioid outcomes by race.

**Results:** Preoperative acetaminophen was independently associated with lower opioid use across all timepoints (total inpatient, final 24 hours, discharge prescriptions, and 30-day postoperative;  $p < 0.05$ ). Gabapentin significantly reduced 30-day postoperative opioid use. Among Black patients, preoperative acetaminophen use was associated with greater reductions in discharge opioid prescribing and final inpatient opioid use.

**Conclusions:** Consistent use of preoperative acetaminophen and gabapentin within ERAS protocols is associated with reduced opioid use following gynecologic oncology surgery. Findings suggest Black patients may derive enhanced benefit, underscoring the importance of equitable ERAS implementation and the need for further studies to confirm these disparities.