Pre-operative Patient Characteristics Predict Outpatient Opioid Use

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Objectives
Despite increasing evidence that postoperative opioid prescriptions contribute to the opioid epidemic, there are no guidelines for opioid prescribing after hysterectomy in gynecologic oncology. We investigated preoperative risk factors for opioid use following minimally invasive hysterectomy for oncologic indications in the setting of an Enhanced Recovery After Surgery (ERAS) pathway to better inform postoperative prescribing patterns.

Methods
This was a prospective cohort study of women who underwent minimally invasive hysterectomy for oncologic indications. Demographic, clinicopathologic, and treatment-related data were collected. Postoperative opioid use was assessed with a telephone survey and review of a state-sponsored prescription drug monitoring program. A Zero-Inflated Poisson model was used to evaluate risk factors for opioid use.

Results
We identified 254 patients who underwent a minimally invasive hysterectomy for oncologic indications from July 2020-November 2022. 72 eligible patients completed the telephone survey regarding opioid use and were included in the study. Two thirds of patients used opioids after discharge; of those who used opioids, an average of 50 morphine milligram equivalents (MME) were used, equivalent to 6.7 tabs of oxycodone 5mg (7.5 MME = oxycodone 5mg). Hypertension, diabetes, depression/anxiety, and endometriosis were associated with an increase in average opioids taken while inpatient. The use of any MME inpatient was associated with a 39% increase in amount of MME used after discharge. Average outpatient opioid use was inversely associated with age (2.5% fewer MME per year older), prior abdominal surgery (-11%), and migraines (-30%). Longer surgery times and diabetes were associated with an increase in average MME taken after discharge. Interestingly, compared to robotic surgery, laparoscopic hysterectomy was associated with a decrease in MME use after discharge.

Conclusions
Patients use fewer morphine milligram equivalents (MME) after minimally invasive hysterectomy for oncologic indications than what is typically prescribed. Patient age, surgical history, and history of hypertension, migraines, or diabetes should be considered in personalizing outpatient prescriptions.