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## SI/CTR Abstract

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### Otologic opioid usage and pain control in the postoperative period

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**Introduction:** Patients' unused prescription opioids can be diverted and increase the overall opioid burden on society. Therefore, otolaryngologists can reduce opioid influx by minimizing excess tablets in opioid prescriptions. We hypothesize that otology patients at TJUH receive more opioid tablets than needed to effectively manage postoperative pain.

**Methods:** Patients ages  $\geq 18$  years old who received otologic surgery at TJUH were included in this prospective observational study between November 2019 and August 2020. Patients were provided a survey for recording pain on postoperative days 0, 1, 3, and 7 and the amount of remaining opioids from their prescription. Opioid amounts were converted to morphine milligram equivalents (MME) for analysis. Mean and standard deviation were calculated for pain scores, MME prescribed, and MME used. A multivariate regression model was used to predict increased MME usage for selected indicators.

**Results:** Ninety-one patients completed the study. Collectively, forty-seven percent of MME were unused, while seventy percent of MME were unused in patients receiving a transcanal incision (n=28/91). Pain scores and MME utilization differed significantly between transcanal and postauricular cohorts (p=0.002). Additionally, patients with a postauricular incision had 60% more opioid usage (p<0.001). Low pain scores and high proportions of unused MME in stapedectomy and transcanal tympanoplasty indicate that postoperative pain in these procedures may be managed with reduced opioid prescriptions and/or NSAIDs.

**Discussion:** A significant amount of opioids were unused in this study. Patients with postauricular incisions had significantly increased opioid utilization than patients with transcanal incisions. These results support the hypothesis that otologic patients are overprescribed postoperative opioids. Otolologists may be able to manage postoperative pain with reduced opioid prescriptions, multimodal analgesia, and increased patient education. This can be leveraged as a point of intervention in the opioid epidemic to reduce excess opioids in the community.