

Preoperative Opioid Use Increases Prescription but not Total Episode-of-Care Costs

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INTRODUCTION: Although bundled payments incentivize improving outcomes for patients undergoing TJA, healthcare systems may be disincentivized from providing care for higher-risk patients. Factors that are predictive of higher episode-of-care costs in patients undergoing TJA are necessary to identify to be incorporated into payment models. This study examined preoperative opioid use as a potential risk factor for increased cost of care in patients undergoing TJA with a bundled payment model.

METHODS: This study was a retrospective, single-institution review of patients who underwent unilateral, primary TJA for osteoarthritis between 2019 and 2023 who utilized a bundled payment model. Opioid prescription data was queried from a national drug monitoring database. Patients were classified as preoperative opioid users if they had at least one filled opioid prescription between 1-30 days and between 31-90 days preoperatively. Patients without a filled prescription in the 90 days before surgery were classified as naïve.

RESULTS: We identified 187 preoperative opioid using patients and 2,609 naïve patients. There were no differences in number of readmissions or emergency department visits between groups. Medical and surgical costs were equivalent between the groups (\$23,789 for opioid using and \$24,650 for naïve patients, $P = 0.163$), but prescription cost was significantly higher in the opioid-using group (\$273 versus \$60, $P < 0.001$). Total cost was equivalent between groups, but the mean cost difference was significantly lower in the opioid-using group than the naïve group (\$4,855 surplus versus \$5,981 surplus, $P = 0.001$), but no difference in number of patients with a deficit between the opioid using and naïve groups (11.2 versus 8.8%, $P = 0.316$).

DISCUSSION AND CONCLUSION: Patients filling opioid prescriptions in the 90 days preoperatively have significantly higher prescription costs and lower mean surplus in a bundled payment model. Reimbursement models should account for preoperative opioid use in expected postoperative prescription costs.