

Are Opioids Overprescribed in Septic Revision Total Hip Arthroplasty? A National Database Prescription Analysis

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INTRODUCTION: There is a lack of research examining opioid use in septic revision total hip arthroplasty (R-THA). These procedures involve complex surgical interventions and extensive tissue resections, increasing the risk for prolonged postoperative pain. Therefore, comprehensive documentation and evaluation of opioid utilization, is critical to optimizing patient care and mitigate chronic opioid use.

METHODS: We performed a retrospective review of a national claims database using PearlDiver software. Patients undergoing septic and aseptic R-THA procedures from 2010 to 2022 were identified based on ICD-9-10 and CPT codes. The opioid prescription was measured for the first six months after the surgery. The morphine milliequivalents (MMEs), prescription provider and medication type were documented.

RESULTS: A total of 26,918 aseptic and 8,133 septic procedures were identified. About 51.2% and 44.8% of the patients were opioid naïve in the aseptic and septic groups, respectively. The mean prescribed MMEs were higher throughout the 6 months in the septic cohort, reaching a mean difference of 337.6 MMEs at four months ($P < 0.001$) (Table 1). While there was a constant decrease in prescription rates and MMEs postoperatively, 5.5% of the septic and 7.5% in the aseptic cohorts continued consuming opioids at six months. Hydrocodone, oxycodone, and tramadol were the most commonly prescribed opioids (Figure 2). The main prescribers of opioids in the 30 days following surgery were orthopedic surgeons and internal medicine physicians for both septic (26% vs. 6%) and aseptic (2% vs. 12%) cohorts, respectively (Figure 3). Acute prosthetic joint infection rates were higher in patients consuming opioids in both, septic (14.6% vs 13.1%; $p < 0.001$) and aseptic cohorts (1 vs 0.9%; $p < 0.001$).

DISCUSSION AND CONCLUSION: Septic R-THA requires frequent and stronger opioids post-surgery compared to aseptic procedures, with a significant number of patients continuing chronic opioid use. This highlights the need for research into alternative pain management strategies to reduce opioid dependence.

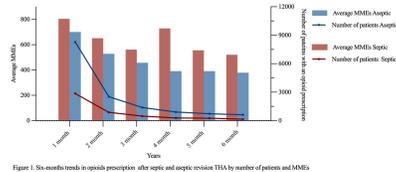


Figure 1. Six-month trends in opioid prescriptions after septic and aseptic revision THA by number of patients and MMEs

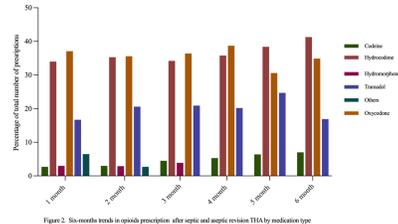


Figure 2. Six-month trends in opioid prescriptions after septic and aseptic revision THA by medication type

