

Postoperative Pain in Outpatient Orthopaedic Trauma Patients

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Purpose: The literature examining postoperative pain experienced by orthopaedic trauma patients is scarce and appropriate opioid medication dosing for these patients is not well defined. The purpose of our study is to gain an understanding of the postoperative pain and anxiety experienced by outpatient orthopaedic trauma patients, the pattern of pain medication use, as well as how patient and treatment-specific variables affect their perception of pain.

Methods: A cross-sectional, observational study design is utilized, examining all adult patients undergoing outpatient fracture surgery performed by the study investigators. Prior to surgery, patients are enrolled in the study and given pertinent reference materials by the orthopaedic surgeon. Demographic and clinical data are collected at that time. We utilize an automated texting platform to survey the participants. For 14 days postoperatively, participants receive a sequence of text messages twice daily inquiring about their pain, anxiety, and pain medication use. Participants' responses to the texts are compiled along with demographic and clinical data, followed by performance of statistical analysis.

Results: Data collection is ongoing and we are presenting results from our current number of 83 participants. Pain and anxiety were measured with the Numeric Rating Scale for Pain (scale of 1-10) and the Visual Facial Anxiety Scale (scale of 1-5), respectively. The mean pain and anxiety levels for days 1 through 7 were 4.8 and 1.7, respectively. The mean pain and anxiety levels for days 8 through 14 were 3.0 and 1.3, respectively. There was a mean of 8.7 days for participants' pain level to decrease to a severity of 2, and a mean of 9.7 days for pain level to decrease to a severity of 1. The 2 variables found to be significantly associated with the need for pain medication for greater than 7 days were tobacco use and use of regional block anesthesia. Gender, alcohol use, marijuana use, family history of drug use, presence of psychiatric history, presence of neuropathy, overweight status, upper versus lower extremity surgery, presence of other injuries, use of non-narcotic pain medications, as well as use of general, local, or spinal anesthesia were not found to be significantly associated with the need for pain medications for greater than 7 days.

Conclusion: Our study is the first of its kind examining the postoperative pain and anxiety experienced by outpatient fracture surgery patients. We identify patient and treatment-specific variables that affect postoperative pain in a typical community trauma setting where various types of anesthesia are given at the discretion of the anesthesiologist. Our study will provide evidence-based data to promote safe and effective opioid prescribing practices.