



Research Week 2020

A Collaborative Multimodal Pathway Reduces Opiates after Total Hip and Knee Arthroplasty

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Keywords

Opioid Reduction Hip Knee Arthroplasty

Abstract

Intro

Degenerative joint disease affects much of the aging population making total hip arthroplasty (THA) and knee arthroplasty (TKA) two of the most prevalent procedures performed. The invasive nature of these procedures and the painful manifestation of degenerative joint disease is associated with opiate prescription. In an attempt to reduce the opiate consumption during TKA and THA we undertook a collaborative effort to improve our pathways for post-operative pain control. The aim of this investigation is to evaluate the effectiveness of our new multimodal pain control pathway.

Methods

This will be a retrospective review of all patients who underwent primary TKA and THA at a single academic institution from November 2018 to March 2020. The multimodal pain control pathway was implemented in November 2019. The primary outcome is total morphine equivalent dosing during inpatient stay, at discharge, and within the first six weeks from discharge. Secondary outcomes assessed were length of stay, visual analogue scale (VAS) pain score. Data collection will include basic demographics (age, sex, BMI, documented opioid usage), co-morbidity score (measured by ASA), cognitive score, psychiatric conditions, surgeon, discharge medications, day/time of discharge, and numerical pain scores.

Results

Retrospective chart review is currently underway. We will compare TKA and THA patients prior to the initiation of the new pathway and compare these to the cohort of patients after the initiation of the multimodal pain pathway. Power analysis will be conducted after an initial pilot data collection to determine how many patients will need to be collected with appropriate power to detect a 10% reduction between cohorts.

Discussion

The results of this study could prove beneficial for patients undergoing TKA and THA by shifting away from opiates with a multimodal pathway and reducing their opiate consumption. Future investigations should evaluate this protocol on different populations and in different settings.