



**WICHITA STATE
UNIVERSITY**

UNIVERSITY LIBRARIES

**Post-operative pain management in patients
undergoing total knee arthroplasty: A literature review**

Item Type	Abstract
Authors	Gentner, Luke;Hervey, Quay;Lahey, Ryan
Citation	Gentner, Luke, Hervey, Quay, Lahey, Ryan. 2019. Post-operative pain management in patients undergoing total knee arthroplasty: A literature review -- In Proceedings: 15th Annual Symposium on Graduate Research and Scholarly Projects. Wichita, KS: Wichita State University
Publisher	Wichita State University
Download date	2026-05-17 00:17:22
Link to Item	http://hdl.handle.net/10057/16189

Post-operative Pain Management in Patients Undergoing Total Knee Arthroplasty: A Literature Review

Luke Gentner,* Quay Hervey,* Ryan Lahey*

Faculty: Sue Nyberg

Department of Physician Assistant, College of Health Professions

INTRODUCTION: Total knee arthroplasty (TKA) is one of the most effective treatment options for patients with severe knee osteoarthritis; however, this procedure is known to cause significant post-operative pain. Prolonged post-operative pain can predispose individuals to a prolonged and complex recovery. Managing variable responses to pain post TKA proves to be a significant challenge for both providers and patients. The purpose of this review is to investigate optimal pain management strategies for patients following TKA.

METHODS: A literature search was conducted and included the following databases Medline, CINAHL, Cochrane library. Search terms or related terms included total knee arthroplasty, joint arthroplasty, opioids, post-operative, pain management, pain. Articles were then identified and reviewed based on relevance, type of study, and age of the study.

RESULTS: Seven adjunctive pain management therapies were identified and include: Cox-2 specific inhibitors, Tylenol®, ketamine, corticosteroids, gabapentinoids, peri- and intra-articular knee injections, and physical therapy. Articles found concluded that therapies effective for reducing postoperative TKA pain included: Cox-2 specific inhibitors, Tylenol®, ketamine, corticosteroids, peri- and intra-articular knee injections. Therapies that reduced opioid consumption acutely in the TKA post-operative setting included Cox-2 specific inhibitors, Tylenol®, ketamine, gabapentinoids, peri- and intra-articular knee injections. Preoperative physical therapy did not decrease pain scores in the TKA postoperative setting.

CONCLUSION: A multimodal treatment strategy is the most effective for reducing post-operative pain following TKA. This technique should include utilizing Cox-2 inhibitors, Tylenol®, ketamine, corticosteroids, gabapentinoids, peri- and intra-articular injections tailored to each individual patient.