

Title: Post Operative Pain Management in the Opioid Tolerant Orthopedic Surgical Patient

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Purpose & Rationale: to develop evidence-based practice recommendations for acute post surgical pain in the opioid tolerant patient; need identified by patient, nursing, and on-call physician frustrations with inadequate pain management in the first 24-48 hours.

Research question: What are the best practice recommendations for managing the post-op pain in the opioid tolerant orthopedic surgical patient?

Synthesis of Literature Review: Increasing numbers of patients are utilizing opioids to manage persistent pain (Mitra, 2004). Annually, nearly 300 patients are admitted to Middlesex Hospital following surgical procedures involving the spine. Randomized control trials related to acute pain management in the opioid tolerant are few and guidelines specific to this population are based upon case studies and review articles (Bourne, 2008; Mehtra, 2006; Mitra, 2004). Pain is historically under treated in patients who are opioid tolerant and/or addicted (Mehtra, 2006). Chronically opioid consuming patients experience increased post-op pain with 20-30% still experiencing moderate to severe pain during the immediate post operative period (Carroll, 2004).

Methods:

DATABASES: COCHRANE, CINAHL, MEDLINE

KEY TERMS: spinal fusion, postoperative pain, peri-operative care, analgesics, opioid, drug tolerance, pain and chronic disease

LIMITS: English language; > 19 years old; 1992 to present; research

YIELD: 25 articles (1 meta-analysis, 1 guideline (from RCTs), 12 RCT, 1 non-RCT, 6 case studies, 4 expert opinion)

Results: After reviewing the literature, the nursing team developed recommendations to propose to the hospital's Pain Team. The recommendations developed include the preoperative, intraoperative, postoperative, and discharge periods. Critical to the preoperative period is to identify the opioid tolerant patient, assess the previous pain experience, and appropriate opioid dosing. During the intraoperative period, the team must maintain baseline opioid dose, increase dose for tolerance, and utilize appropriate non-opioid analgesics. The post-op period requires maintenance of baseline opioid with the expectation of increasing the dose 2-4 times above the opioid naïve patient, as well as, using multi-modal analgesia. At discharge the patient will need greater opioid dosing than pre-operatively with the plan to taper the dose over 2-4 weeks. Patient education must be prioritized throughout the perioperative period. Utilizing multi-modal analgesics and adjuvants, such as, ketamine, gabapentin, parecoxib, fluriprofen, celecoxib with pregabalin, and ketoprofen have been shown to decrease opioid consumption and improve pain control with fewer side effects (Bell, 2004; Turan, 2004; Jirarattanaphochai, 2008; Yamashita, 2006; Reuben, 2006; Aubron, 2000). The literature emphasizes the need to identify the patient, assess the opioid history, and to develop a multi-disciplinary pain management plan prior to the patient being admitted for the surgical procedure.

Application to Practice: The nursing team will present recommendations to the Pain Team, answer questions and amend recommendations accordingly. The nursing team will serve as a resource to engender acceptance for and implementation of the recommendations by fostering collaboration with the hospital wide multi-disciplinary Pain Team to implement evidence based recommendations.