

## **PREEMPTIVE TREATMENT OF MUSCLE SPASM IMPROVES THE PAIN OUTCOME AFTER MAJOR SPINAL SURGERY**

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**Background Information:** Patients having major spine surgery use a plethora of medications to relieve chronic pain. Preoperatively, medication regimes may be interrupted, causing an exacerbation of back pain and muscle spasm. Postoperatively, higher pain scores are common as the patient awakens to acute pain and muscle spasm related to surgery.

**Objectives of Project:** The research group was interested in a preemptive multimodal medication regime to reduce narcotic usage in the Post Anesthesia Care Unit (PACU), and lower pain scores throughout the immediate postoperative period.

**Process of Implementation:** Ambulatory Surgery Unit(ASU)/PACU nurses and the orthopedic surgeon met and collaborated a change in the drug regime for any patient having a laminectomy, decompression, fusion, grafting with/or without instrumentation. Flexeril 10 mg was added to the current oral preoperative "cocktail" of Tylenol, Celebrex and OxyContin while Valium 5 mg was added and given to the patient prior to discharge from PACU. Flexeril 5mg was ordered every 8 hours on the surgical unit. Audit tools were developed to collect numerical pain score data until midnight of the postoperative Day 1. Fentanyl given in PACU was recorded on all patients.

**Statement of Successful Practice:** The post-interventional study showed lower pain scores in all categories with statistically significant findings ( $p=.05$ ) in the discharge from PACU pain score and mean high and mean low pain scores throughout Postop Day 1. A significant reduction was noted in the number of patients requiring Fentanyl in PACU; 53.88% pre-interventional group ( $n=68$ ) received Fentanyl compared to 37.31% post-interventional group ( $n=67$ ). Preemptive use of Flexeril and Valium improved pain outcomes for patients experiencing acute pain and muscle spasm after spine surgery. The number of patients requiring Fentanyl during the PACU stay was reduced.

**Implications for Advancing the Practice of Perianesthesia Nursing:** This study validates the need to advance perianesthesia nursing practice in improving patient comfort by exploring nonnarcotic options to improve patient comfort.