



# Research Week 2020

## Effect of Patient Education on Healthcare Utilization and Satisfaction Following Peripheral Nerve Block for Ambulatory Surgery

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### Keywords

Pain management, regional anesthesia, patient education

### Abstract

#### Introduction

Postoperative pain poses a significant challenge for patients undergoing ambulatory orthopedic surgery with 30% of patients reporting moderate to severe pain. Regional anesthesia, including single shot peripheral nerve blocks (SS PNB) and continuous catheter peripheral nerve blocks (CC PNB), can reduce postoperative pain. PNBs pose challenges including higher rates of unplanned healthcare utilization postoperatively. It was hypothesized that enhanced patient education could decrease healthcare utilization and improve pain management satisfaction.

#### Materials and Methods

This is an interim analysis of a single center, prospective, usual care control, non-randomized cohort study. The usual care cohort received bedside teaching for SS PNB and a slideshow for CC PNB. All patients in the intervention cohort received a comprehensive mixed media education with handouts and videos. Primary outcomes included healthcare utilization and patient satisfaction, assessed by phone call.

#### Results

Healthcare utilization rate is similar between the usual care (15.5%) and intervention cohort (15.0%), but fewer subjects with SS PNB required healthcare resources after intervention (8.1% vs. 3.8%). More subjects in the usual care cohort sought medical attention multiple times compared to the intervention cohort (41.0% vs. 13.3%). In the usual care cohort 88.5% were satisfied with pain management vs. 91.0% in the intervention cohort. In the usual care cohort 90.1% were satisfied with the education provided vs. 95.0% in the intervention cohort.

#### Discussion

There are similar rates of healthcare utilization in the usual care and intervention cohorts. However, the proportion of subjects utilizing healthcare resources multiple times and the rates of healthcare utilization in those receiving SS PNB suggest a trend toward decreased utilization after implementation of a mixed media approach. Any form of educational material may be beneficial over bedside teaching alone. There is a trend toward improved satisfaction in postoperative pain management and education provided after a mixed media education implementation.

