

## Efficacy of Buprenorphine and Clonidine Local Anesthetic Additives in Adductor Canal Blocks for Total Knee Arthroplasty

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## Introduction



- Adductor canal nerve block (ACB) has been recently well-described in regional anesthesia literature
- Clonidine and buprenorphine have been described as adjuvants to local anesthetic (LA) for peripheral nerve blocks
- No studies have evaluated use of these additives for ACB
- Retrospective study to evaluate recent change in practice
- We hypothesized more efficacious block with additives

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## Materials and Methods



- Following IRB approval, retrospective chart review of patients undergoing total knee arthroplasty (TKA) from October to December 2014
- Preoperative ACB with combined spinal epidural (CSE) as primary anesthetic technique
- Patients divided into two groups
  - Group 1: ACB with 20ml 0.25% bupivacaine **PLUS** 200mcg buprenorphine and 25mcg clonidine
  - Group 2: ACB with 20ml 0.25% bupivacaine **ALONE**

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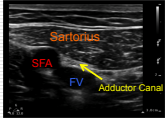
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## Materials and Methods

- ACBs performed mid-thigh using ultrasound guidance

- Preoperative characteristics and data points from the perioperative period were abstracted from patient's charts
- GraphPad Prism (La Jolla, CA) used for statistical analyses
  - Mann-Whitney U test

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## Results

- 56 qualifying patient's charts were reviewed
- Each group contained 28 patients
- Preoperative Characteristics included age, gender, BMI, ASA score, weight, pre-op opioid use, pre-op pain score
- Perioperative data points included opioid consumption, pain scores, ambulation distance, and PACU/hospital times

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## Preoperative Characteristics

	Group 1	Group 2	P-value
Age mean (yrs.)	64.1	63.1	0.628
BMI mean (kg/m <sup>2</sup> )	31.3	26.5	0.090
Median ASA score	2	2	>0.999
Gender (n)	M=12, F=16	M=13, F=15	N/A
Pre-op Opioid use (n)	8	5	N/A
Pre-op Pain (mean)	1.39	1.82	N/A

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