Differences among limited English proficiency patients regarding resource utilization, postoperative pain, and treatment of pain after total joint arthroplasty.

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INTRODUCTION: Total joint arthroplasty (TJA) outcomes among subgroups of patients with limited English proficiency is not fully understood. This study investigates resource and analgesic medication utilization within subgroups of LEP patients undergoing TJA.

METHODS: LEP patients were defined as those who self-report a non-English primary language or requested interpreter services prior to a TJA. 841 LEP patients underwent unilateral TJA for primary osteoarthritis between 2016 and 2020 at a single institution. The predominant subgroups included in this study were Spanish speaking patients (SSP) n=218, Russian speaking patients (RSP) n=166, and Chinese language speaking patients (CSP) n=113. Data recorded included length of stay (LOS), operative time, length of anesthesia, PACU time, numeric pain rating scale (NPRS), and analgesic use (both non-opioid and morphine milliequivalent, or MME).

RESULTS: Among the cohorts, there were no differences regarding LOS (p=0.59) or time spent in the PACU (p=0.15). Operative time and anesthesia time were significantly shorter in CSP compared to both RSP and SSP(p<0.01). NRPS scores were higher for SSP compared to CSP or RSP both preoperatively (p<0.01) and postoperatively (p<0.01). There were no differences in the quantity or rate of utilization for non-opioid analgesics among the groups. While CSP utilized significantly more MMEs preoperatively (p<0.01), they also used significantly less MMEs as an inpatient both postoperatively (p<0.01) and hourly (p<0.01). There was no difference in the cohorts with regards to intraoperative MME, discharge MME, total 90-day prescribed MME.

DISCUSSION AND CONCLUSION: Barriers to equitable care are complex and multifactorial. The importance of understanding and addressing health care disparities possibly improves patient outcomes. Greater preoperative pain, and greater preoperative opioid use in a subgroup, interestingly, did not predict greater postoperative pain or opioid use in that subgroup. Between subgroups of LEP patients there are differences in perioperative resource utilization and treatment patterns to appreciate.