## In-Hospital and Disposition Resource Utilization for Patients with Limited English Proficiency undergoing Total Joint Arthroplasty.

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INTRODUCTION: Language barriers can exacerbate disparities in resource utilization following total joint arthroplasty (TJA) leading to prolonged hospitalization, higher costs, and disparities in resource utilization. Considering the current healthcare trends towards shortening length of hospitalization and transitioning to ambulatory arthroplasty, we studied in-patient resource utilization and discharge disposition in this growing population.

METHODS: We identified 841 Limited English Proficiency (LEP) patients, defined as patients who self-reported a non-English primary language and/or requested interpreter services before hospitalization who underwent TJA between 2016 and 2020. LEP patients were exact matched 1:1 with English proficient (EP) patients based on surgery date (±60 days), age (±5 years), BMI (±5 kg/$m^2$), sex, joint, ethnicity, hip approach (when applicable), and a medical history of chronic pain, anxiety and depression. Compared outcomes included length of hospitalization, ambulatory status, and discharge disposition. Analysis was performed using multivariable regression controlling for demographic and clinical factors, as well as marital status, and income groups.

RESULTS: The total length of stay from admission to discharge was significantly longer for LEP patients (72 vs. 63 hours, $p<0.0001$). Only 0.6% of LEP patients were discharged within 24 hours, compared to 3.2% of EP patients—a rate more than five times higher ($p<0.001$). Likewise, 26.2% of LEP patients had stays exceeding 48 hours, compared to 21% of EP patients ($p=0.007$). Additionally, 21% of LEP patients were discharged to skilled nursing facilities, almost double the rate of EP patients (21% vs. 12.4%, $p<0.001$).

DISCUSSION AND CONCLUSION: These findings underscore a need for targeted strategies to improve communication and care for Limited English Proficiency patients. Addressing these disparities can lead to commensurate experience and resource utilization, ultimately reducing inequities faced by LEP patients undergoing elective arthroplasty.