The Effect of Insurance Type on Length of Stay following Total Knee Arthroplasty

Sandeep Singh Bains[1], Ethan Remily, Jeremy Dubin[1], Zhongming Chen, Daniel Hameed[2], Rubén Monárrez[3], Michael A Mont, James Nace, Ronald Emilio Delanois[4]

[1]Sinai Hospital, [2]Rubin Institute For Advanced Orthopaedics, [3]Rubin Institute For Advanced Orthopedics, [4]Rubin Institute for Advanced Orthopedics

INTRODUCTION: With the expansion of the Affordable Care Act, there has been a growing interest as to how the Medicaid population will affect postoperative outcomes following Total Knee Arthroplasty (TKA). Studies have shown lower socioeconomic status, non-Caucasian race, females, cardiac and renal disorders, and younger are associated with increased length of stay (LOS) after TKA. The primary purpose of our study was to compare total complications and LOS among patients undergoing TKA with cash, commercial, government, Medicaid, and Medicare insurances.

METHODS: We queried a national, all-payer administrative claims database from 2016 to 2022 among patients undergoing TKA with cash (n=3,923), commercial (n=966,169), government (n=25,644), Medicaid (n=56,184), and Medicare (n=524,034) insurances. We compared and analyzed baseline demographics, total complications, and LOS, including < 4 days, 4 to 6 days, 7 to 9 days, and >9 days between the insurance types. Medicaid and Medicaid insurance types had patients with the most comorbidities at baseline, including Elixhauser Comorbidity Index>3 (p< 0.0001), female sex, alcohol abuse, diabetes, obesity, tobacco use, chronic kidney disease, and congestive heart disease (all p< .0001).

RESULTS: In accounting for comorbidities, Medicaid is the biggest risk factor for total complications (p< 0.001). In terms of LOS, Medicaid had the longest LOS after TKA at 4 to 6 days, 7 to 9 days, and >9 days (p< 0.0001).

DISCUSSION AND CONCLUSION: Medicaid insurance is a risk factor for increased total complications and LOS following TKA. Appropriate preoperative and perioperative management of these patients is essential in order to mitigate the risk and burden on the healthcare system in this population.