

Medicaid Patients Undergo Total Joint Arthroplasty at Lower Volume Hospitals by Lower Volume Surgeons

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INTRODUCTION: Medicaid insurance coverage among total hip (TKA) and knee arthroplasty (THA) patients has been associated with poorer postoperative outcomes compared to non-Medicaid patients. Surgeons and hospitals with lower annual total joint arthroplasty (TJA) volume have also been associated with poorer outcomes. This study seeks to characterize whether Medicaid patients undergoing TJA are more likely to be performed at lower volume facilities by lower volume surgeons, and to assess rates of postoperative complications compared with other payer types.

METHODS: One database was queried for all patients who underwent primary TJA from 2015-2020. Patients were divided based on their insurance status: Medicaid vs. non-Medicaid. The distribution of hospital and surgeon case volumes were assessed for each cohort. Multivariate analyses were performed accounting for patient demographics, comorbidities, surgeon volume, and hospital volume to assess the 90-day risk of postoperative complications.

RESULTS: Overall, 1,204,624 TJA patients were identified (64.0%% TKA and 34.0% THA), of which 55,021 (4.57%) had Medicaid insurance. In total, 49.4% of Medicaid patients were treated by surgeons doing <100 cases per year compared to 37.3% of non-Medicaid patients. (Figure 1) Furthermore, Medicaid patients were more likely to undergo a TJA at lower volume hospitals doing <500 cases per year compared to non-Medicaid patients (51.9% vs. 37.4%, p<0.0001). (Figure 2) After accounting for differences among the two cohorts, Medicaid patients remained at increased risk of postoperative deep venous thrombosis (OR 1.15, p=0.022), pulmonary embolism (OR 1.47, p=0.001), periprosthetic joint infection (OR 1.53, p<0.001), and 90-day readmission (OR 1.37, p<0.001).

DISCUSSION AND CONCLUSION: Medicaid patients were more likely to undergo TJA by lower volume surgeons at lower volume hospitals and had higher rates of postoperative complications compared to non-Medicaid patients. Further investigation should be done to better understand the effects of hospital and physician volume on postoperative outcomes among

