Demographic and Comorbid Disparities Based on Payer Type in a Total Joint Arthroplasty Cohort: Implications in a Changing Health Care Arena

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Introduction:
Although some investigators have studied the relationships of comorbidities and patient demographics to outcomes in patients undergoing orthopaedic procedures in general and total joint replacement specifically, little investigation has been performed on the study of differences in comorbidities between payer groups of patients undergoing these procedures. The authors evaluated the patients undergoing total joint replacement in a single surgeon’s practice at an academic institution to evaluate disparities in comorbidities and demographics based on payer mix. The authors hypothesized that disparities in demographics and payer mix would exist between patients of various payer types.

Methods:
A retrospective review of 875 primary TKAs and THAs by a single surgeon (JJC) at an academic institution between 1/2004 and 6/2008 was performed. Data on the primary insurance payer was used to stratify the cohort into two groups, Medicaid/State Aid insured and Medicare/Commercial insured. Demographic, functional, access to care, and comorbidity data obtained from a standard pre-operative survey were compared for these groups.

Results:
Of 875 primary TKAs and THAs, 18.3 % of patients were Medicaid/State Aid insured, while 81.7 % were insured by Medicare/Commercial Payer. Average age was 53.7 and 62.3 respectively, while average BMI was 35.2 and 32.9. The Medicaid/State Aid group was found to be 3 times more likely to smoke tobacco (25.2% v. 8.3%). Pre-operative WOMAC Function score which was significantly lower (P<0.05). Body mass index and diabetes rates were comparable between the two cohorts. However, there was a trend toward more obesity in the Medicaid/State Aid group. Medicaid/State Aid patients traveled 29.7 miles farther, suggesting they had less access to local orthopaedic care.

Conclusion:
Rates of smoking were found to be significantly higher in the Medicaid/State Aid group. These patients were significantly younger by an average of nearly a decade, and had a pre-operative WOMAC Function score which was significantly lower (P<0.05). Body mass index and diabetes rates were comparable between the two cohorts. Although the authors only studied a single surgeon cohort of patients, they are expanding the study to involve other surgeons at the same institution and other institutions (both academic and private practice). Investigators and practitioners should be aware of these disparities especially in this age of greater transparency and accountability for quality of care. Government and private insurance agencies need to recognize these disparities to accurately define the quality of work at an institution or of an individual.