Paper #55



Is Orthopaedic Department Teaching Status Associated with Adverse Outcomes of Primary Total Hip Arthroplasty?

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Introduction: Although resident education is necessary to maintain our healthcare system, it is believed to create potential inefficiencies in the delivery of care. Under the regional pricing component of the Comprehensive Care for Joint Replacement (CJR) model, teaching hospitals will be forced to compete on cost, outcomes and efficiency with non-teaching hospitals. In this study, we compared the following outcomes according to hospital type: (1) inpatient complications; (2) costs; (3) unplanned 90-day readmission.

Methods: A total of 60,894 patients underwent primary total hip arthroplasty (THA) between January 1, 2009 and September 30, 2012 in the New York Statewide Planning and Research Cooperative System. Perioperative medical and surgical complication categories were created using ICD-9-CM diagnosis codes. Costs were calculated using cost-to-charge ratios. Mixed-effects regression models accounted for hospital clustering and year of surgery and were controlled for demographics and Deyo comorbidity score.

Results: Perioperative medical complications were less common at teaching compared to non-teaching hospitals (3.7% vs. 4.7%; p<0.001) but this was not significant in regression modeling (OR=0.88, p=0.122). Perioperative surgical complications were similar at teaching compared to non-teaching hospitals (0.8% vs. 0.9%, p=0.130), remaining insignificant after regression modeling (OR=0.99, p=0.948). Mean costs were higher at teaching compared to non-teaching hospitals (21,568 vs. 19,579 USD; p<0.001) and this difference remained highly significant in adjusted regression modeling (beta: 15.3%, p<0.001). The rate of unplanned 90-day readmission was less common with patients receiving their procedure from teaching compared to non-teaching hospitals (6.1% vs. 7.2%, p<0.001), but this was not significant after adjusted regression modeling (OR=0.95, p=0.249).

Conclusions: Primary THA at teaching hospitals is associated with higher costs but not significantly differ from non-teaching hospitals in terms of inpatient complications or 90-day readmission. Therefore, orthopaedic teaching hospitals may be adversely affected by regional pricing. While indirect medical education payments help defray the costs of inefficiency in United States teaching hospitals, administrators and policy makers must ensure that financial incentives for efficiency are not impeding resident education.

Notes

