Paper #26

A Comparison of Relative Value Units in Primary versus Revision Total Knee Arthroplasty: Which Provides the Better Bang for Your Buck?

Notes

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Introduction: Relative value units (RVUs) are utilized to determine the effort required for providing a service (or procedure) to a patient, and ultimately for compensation. The purpose of this study was to compare the: 1) RVUs; 2) length-of-surgery; and 3) RVU per unit of time between primary and revision total knee arthroplasty using a national database.

Methods: We utilized the American College of Surgeons, National Surgical Quality Improvement Program database from 2008 to 2015 to identify patients who underwent either a primary (CPT code 27447) or revision (CPT code 27487) TKA. There were 165,538 patients who underwent a primary and 8,099 who underwent a revision total knee arthroplasty. The mean RVUs, length of surgery (in minutes), and RVU per minute were calculated. T-tests were used to compare variables between primary and revision TKA. A p-value of less than 0.05 was used to determine statistical significance.

Results: There was a significant difference in the mean RVUs between primary and revision total knee arthroplasty (22 vs. 27 RVUs, p= 0.001). There was a significant difference in the mean length of surgery between primary and revision total knee arthroplasty (95 vs. 150 minutes, p=0.001). The mean RVU per minute was significantly higher in primary versus revision TKA (0.3 vs. 0.2 RVUs per minute, p= 0.001).

Conclusion: It appears that despite revision total knee arthroplasty being a longer, more technically challenging procedure, there is a significantly lower RVU per minute assigned for performance. Therefore, orthopaedic surgeons are reimbursed at a higher rate per minute for primary cases compared to revision total knees. It can be argued that there needs to be a shift to increase the RVU per unit time for revision TKAs, as they are more time-consuming, technically-challenging procedures.