Selected Articles of Interest

Registry Methodology


This article provides an excellent overview of registry history, development accomplishments and goals. The authors review the structure of the registry and the process for entering data. Comparisons with other well know registries, such as Mayo Clinic and the Swedish Knee Arthroplasty Register are discussed and limitations are reviewed.

Cost Analysis


Numerous joint implant options of varying cost are available to the surgeon, but it is unclear whether more costly implants add value in terms of function or longevity. We evaluated registry survival of higher-cost "premium" knee and hip components compared to lower-priced standard components. We compared 3462 standard TKAs to 2806 premium TKAs and 868 standard THAs to 1311 premium THAs using standard statistical methods. The cost of the premium implants was on average approximately $1000 higher than the standard implants. There was no difference in the cumulative revision rate at 7-8 years between premium and standard TKAs or THAs. In this time frame, premium implants did not demonstrate better survival than standard implants. Revision indications for TKA did not differ, and infection and instability remained contributors. Longer follow-up is necessary to demonstrate whether premium implants add value in younger patient groups.


In this study, analysis of an all-polyethylene tibial component in total knee replacements revealed a survival rate of 99.5%. We estimate a cost savings for this group (compared with the group that had a metal-backed tibial component) at about $724 per patient (in 2004 dollars). If all patients over the age of seventy-five with a total knee replacement in our registry had received an all-polyethylene tibial
component, the estimated cost savings for twelve years would have been just over $900,000.

Most Recent


Routine patellar resurfacing performed at the time of knee arthroplasty is controversial, with some evidence of utility in both TKA (tricompartmental) and bicompartamental knee arthroplasty. However, whether one approach results in better implant survival remains unclear. We asked whether (1) routine patellar resurfacing in TKAs resulted in lower cumulative revision rates compared to bicompartamental knee arthroplasties, (2) patella-friendly implants resulted in lower cumulative revision rates than earlier designs, and (3) bicompartamental knee arthroplasties revised to TKAs had higher cumulative revision rates than primary TKAs. We compared registry data for 9530 cemented, all-polyethylene patella TKAs and 627 bicompartamental knee arthroplasties without patellar resurfacing. TKAs had a lower cumulative revision rate for patella-only revision than bicompartamental knee arthroplasties (0.8% versus 4.8%). Adjusting for age, bicompartamental knee arthroplasties were 6.9 times more likely to undergo patellar revision than TKAs. Bicompartamental knee arthroplasties had higher revision rates than TKAs. Femoral component design did not influence the cumulative revision rate. Secondary patella resurfacing in a bicompartamental knee arthroplasty carried an increased revision risk compared to resurfacing at the time of index TKA. To reduce the probability of reoperation for patellofemoral problems, our data suggest the patella should be resurfaced at the time of index surgery.