

AAHKS Clinical Research Award

What are the Costs of Knee Osteoarthritis in the Year Prior to Total Knee Arthroplasty?

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Introduction: Despite AAOS Clinical Practice Guidelines on OA, non-recommended treatments remain in common use. We sought to determine cost associated with non-arthroplasty management of knee OA in the year prior to total knee arthroplasty (TKA) and stratify them by CPG recommendation status.

Methods: The Humana Inc. administrative claims dataset was reviewed from 2007 to 2015 for patients undergoing primary TKA. Cost of hyaluronic acid (HA) and corticosteroid (CS) injections, physical therapy (PT), braces, wedge insoles, opioids, non-steroidal anti-inflammatories (NSAID) and tramadol in the year prior to TKA were calculated. Costs were analyzed as total cost compared to the overall non-inpatient cost of knee OA, which was calculated by the database, and based upon CPG recommendations.

Results: 86,073 primary TKA patients were included in the analysis. In the year prior to TKA, total cost associated with knee OA was \$78,392,953 and non-inpatient cost associated with the diagnosis of knee OA was \$43,582,648. 56,690 patients (65.8%) underwent at least one treatment in the year prior to their TKA. In aggregate, the treatments analyzed made up 57.6% of the total non-inpatient cost of knee OA in the year prior to TKA. Only 3 of the 8 treatments studied are recommended by the AAOS in the CPG (PT, NSAIDS, tramadol) and cost for these intervention represent 11.1% of non-inpatient knee OA costs. In contrast, 46.5% of non-inpatient cost associated with the diagnosis of knee OA in the year prior to TKA are not recommend by the AAOS knee OA CPG.

Conclusions: In the years prior to TKA, over half of the non-inpatient costs associated with knee OA are from injections, therapy, prosthetics and prescriptions. Approximately 30% of this cost is due to hyaluronic acid injections alone, for which the CPGs cite strong evidence against their use in the management of knee OA. If only interventions recommend by the CPG are utilized, then cost associated with outpatient management of knee OA could be decreased by 90%.

Notes
