

Learn Today What Will Drive Tomorrow's O&P Reimbursements

RAND Study: Economic Value of Advanced Transfemoral Prosthetics

Friday, Sept. 8 | 7:40 AM | Oceanside D

ABSTRACT:

Due to recent advances in technologies, prosthetic knees and feet allow for more dynamic movements and improve user quality of life, but payers have recently started questioning their value for money. To answer this question, we simulated the differential clinical outcomes and cost of microprocessor-controlled knees (MPK) compared to non-microprocessor controlled knees (NMPK). We conducted a literature review of the clinical and economic impacts of prosthetic knees, convened technical expert panel meetings, compiled the input parameters required, and constructed and implemented a simulation model over a 10-year time period for unilateral transfemoral Medicare amputees with a Medicare Functional Classification Level of 3 and 4. We found that compared to NMPK, MPK is associated with sizeable improvement in physical function and reductions in incidences of falls and osteoarthritis. The effect on low-back pain, depression, obesity, diabetes, and cardiovascular disease could not be quantified due to the lack of data. Our simulation results show that over a 10-year time period, compared to NMPK, MPK is associated with an incremental cost of \$10,604 per person and an increase of 0.91 quality adjusted life year per person, resulting in an incremental cost of \$11,606 per quality adjusted life year gained. The results suggest that the incremental cost of MPK is in line with commonly accepted criteria for good value for money and with the incremental cost of other medical devices that are currently covered by U.S. payers.



Economic Value of Orthotic and Prosthetic Services Among Medicare Beneficiaries: A 2011–2014 Claims-Based Retrospective Cohort Study

Saturday, Sept. 9 | 7:40 AM | Mandalay Bay H

ABSTRACT:

Background: There are few studies of the economic value of orthotic and prosthetic services. An initial custom cohort study of orthotic and prosthetic Medicare beneficiaries based on Medicare Parts A and B claims from 2007–2010 concluded that patients in the study group who received timely orthotic or prosthetic care had lower total health care costs than a comparison group of untreated patients. This study reports on a parallel analysis based on claims from 2011–2014 and includes Medicare Part D drug claims in addition to Parts A and B. Its purpose is to validate earlier conclusions on the extent to which Medicare patients who received select orthotic and prosthetic services had less total health care utilization, lower Medicare payments, and/or fewer negative outcomes compared to matched patients not receiving these services.

Methods: This is a retrospective cohort analysis using 2011–2014 Medicare claims data and propensity score matching techniques to control for observable selection bias based on etiological diagnosis, comorbidities, patient characteristics, and historical health care utilization.

Results: Patients who received lower extremity orthotics had total 18-month episode costs that were \$1,939 lower than comparable patients who did not receive orthotic treatment (\$22,734 vs \$24,673). Patients who received spinal orthotic treatment had total 18-month episode costs that were \$2,094 lower than comparable patients who did not receive orthotic treatment (\$23,560 vs \$25,655). Study group beneficiaries receiving both types of orthotics had significantly lower Part D spending than those not receiving treatment. Patients who received lower extremity prostheses had comparable Medicare episode payments to matched beneficiaries not receiving prostheses (\$68,877 for study group, \$68,893 for comparison group) despite the relatively high cost of the prosthesis, and better outcomes on select metrics. Prosthetic study group patients had significantly lower spending for most facility-based care, offsetting the cost of the prosthetic over a 15-month period.

Conclusions: These outcomes generally echoed those found in the prior study, with some fluctuation in the dollar spread between the study and comparison groups in specific subcategories of expenditures. Across all analyses, the results suggest that orthotic and prosthetic services provide value to the Medicare program and to the patient.