An Outpatient Total Knee Protocol for Optimizing Outcomes and Reducing Variability of Care

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An Outpatient Total Knee Protocol for Optimizing Outcomes and Reducing Variability of Care

Christopher Johns, PT, DPT, OCS, FAAOMPT and Kimberly Fritts, PT, DPT
Lehigh Valley Health Network, Allentown, Pa.

Summary of Use
A total of 1,636 patients’ charts across 37 facilities were reviewed over the course of 2 years with 1,056 total patients having complete data. Average KOOS, JRA improved from 15.3 percentage points in year A to 17.7 percentage points in year B, p = 0.007 (Figure 3). The coefficient of variation of outcomes in individual facilities improved from 28.6% in year A to 17.9% in year B (Figure 4). Furthermore, in year B, after implementation of a revised standardized protocol, average KOOS, JRA improved from 15.8 percentage points to 19.3 percentage points, p = 0.001. The coefficient of variation improved in year B from 7.92 before implementation of the protocol to 1.24 after implementation. A secondary outcome of the study demonstrated that between years A and B the average number of visits per patient decreased from 15.7 in year A to 14.6 in year B, p = 0.003 (Figure 4). In year B, this difference in visits per patient saved a calculated total of 808 visits.

Importance to Members
Statistical analyses of outcomes data can be utilized to analyze practice patterns and develop updated clinical protocols for physical therapy intervention for patients following total knee replacement to optimize outcomes, decrease variability of care, and improve efficiency of care. By improving outcomes, reducing number of visits per patient, and creating a contemporary protocol, the cost to the patient and the burden on the health care system is reduced while the value of physical therapy is substantiated. As the health care system transitions to value-based care models, studies such as these are necessary to maximize the benefit of physical therapy to the patients.

Benefits
• Development of total knee protocol based upon clinical data
• Improved patient outcomes
• Improved consistency of outcomes throughout the network
• Reduced number of visits per episode

Opportunities for Further Study
• Quantitative analysis of practice patterns
• Determination of outcomes for protocol adherent vs protocol nonadherent sites
• Determination of additional factors predictive of success or nonsuccess

REFERENCES


Hung M, Bounsanga J, Voss MW, Saltzman CL. Establishing minimum clinically important difference values for the patient-reported outcomes measurement information system physical function, quality of life, and satisfaction outcomes instruments. J Arthroplasty. 2017;32(10):2571–7. DOI:10.1016/j.arth.2017.06.014

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