

Inpatient Hospitalization, Short Term Rehabilitation, and Physical Therapy Are Not Required For Successful Total Knee Arthroplasty; A Pilot Study

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Abstract

Background: As the aggregate cost of total knee arthroplasties (TKAs) is rapidly increasing, bundled payment plans are surfacing to control expenditures. Each variable in the episode of care therefore requires scrutiny. Our purpose is to show that TKAs, regardless of age, may be an outpatient procedure without formal postoperative therapy or rehabilitation.

Methods: An intensive standardized program for preoperative patient education with attention to goal setting and expectations was implemented. A new approach to perioperative pain control was undertaken to decrease narcotic consumption and improve satisfaction. Lastly, postoperative physical therapy was replaced with simple unsupervised home exercises. This study looked retrospectively at 209 patients before and after implementation of the experimental protocol for 6 months postoperatively. Patients included were those undergoing primary, unilateral TKA. Data was analyzed using appropriate statistical tests after verification of similarity between groups.

Results: Length of hospital stay decreased from 2.5 days to less than 1 day. The total percentage of patients needing short term rehabilitation or home care dropped from 56% to 9%. The authors found that by giving patients a simple home exercise program, the need for any formal physical therapy decreased from over 95% to under 30%. Under this protocol, patients regain adequate range of motion faster without an increased risk of either manipulation under anesthesia or deep vein thrombosis. Patients were also noted to have fewer overuse injuries and office visits within the first 6 months postoperatively.

Conclusion: Arthroplasty surgeons have long held that aggressive physiotherapy is mandatory following TKA without significant data to support the convention. This study shows that simple exercises performed at home are better or the same as the standard accepted doctrine.

Clinical relevance: National implementation of this protocol for TKAs can not only save the healthcare system billions of dollars annually, but also save individual patients valuable rehabilitation time and money.