

057: EFFECTIVENESS OF A CLINICAL PATHWAY FOR TOTAL HIP REPLACEMENT

Panella M., Marchisio S., Fraternali P.L.

Objective:

To determinate the effect of a clinical pathway for total hip replacement on patients' outcomes and on the quality of the care process.

Methods:

The setting of the research was The Holy Cross Hospital in Fano (Marche Region, Italy). We performed an intervention study to evaluate the effect of the application of a clinical pathway for total hip replacement on core care-processes and outcome indicators and on the costs sustained to assist the patients. We set up an experimental period of one year: 6 months before and 6 months after the implementation of the clinical pathway. The sample included all the patients treated by the staff during the experimentation period. The normality of the distribution for quantitative variables was verified with the Shapiro-Wilks test. We studied each quantitative variable with the t Student test or Wilcoxon test, and each qualitative variable with the X² test or Fischer test. We considered significant p values <0.05, strongly significant p values <0.01.

Results:

One hundred patients were enrolled (43 patients before and 57 patients after the clinical pathway development). Control and intervention groups had similar demographic and clinical severity profiles. We observed significant improvements in many core care-processes: the average diagnostic accesses of the patients (number per patient) decreased from 3.50 to 1.00 (p<0.05); the median of pre-operative exams (number per patient) decreased from 32 to 14 (p<0.05); the proportion of patients compliant with pre-operative analgesic therapy increased from 9.30% to 42.11% (p<0.01); the proportion of patients with pre-operative administration of erythropoietin increased from 30.23% to 68.42% (p<0.01); the proportion of patients with antibiotic prophylaxis consistent with current recommendations increased from 20.93% to 40.35% (p<0.05); the waiting time to receive physiotherapy at home after hospital discharge was reduced from 2.87 day to 1.20 days; the proportion of patients who received a complete follow up improved from 51.16% to 100.00% (p<0.01). With outcomes we did not observe any significant differences in the average length of stay (from 13.07 to 12.81 days) but we did observe a significant reduction in the costs of about 25%. We did not observe patients with early complications and late complications in the two groups. At 180 days follow up we observed a significant reduction of the average level of residual disability of the patients measured with the Functional Independent Measure scores (FIM). In particular after the implementation of the clinical pathway we observed an increased proportion of patients classified as total independent with FIM scores (from 58.14% to 78.95%; p<0.05).

Conclusions:

Clinical pathways are a combination of patient education, appropriate use of practice guidelines, appropriate consultation and supplies of drugs and ancillary services. The overall purpose of clinical pathways is to improve outcome by providing a mechanism to coordinate care and to reduce fragmentation and, ultimately, costs. Our results demonstrated that it is possible to achieve this goal treating the patients that need an intervention of total hip replacement.