

109: International multi-centre study on total knee arthroplasty within the Belgian Dutch Clinical Pathway Network

Vanhaecht K., Sermeus W., Bellemans J.

Objective:

The objective of this study is to benchmark and improve clinical, process and service outcomes in fourteen Belgian and Dutch hospitals through the development of clinical pathways for total knee arthroplasty.

Methods:

Design: a cross sectional design was used.

Sample: 14 hospitals participated in this multi-centre study including 307 patients (ASA 1-2).

Variables: demographic variables, ASA score, wound status, drain removal, pain score, knee flexion, start of mobility, day of 50 metres walking, day of 100 metres walking, day of visit by social worker, number of X-rays during hospital stay, total LOS, LOS on ICU and patient satisfaction were measured.

Process: all participating hospitals are members of the Belgian Dutch Clinical Pathway Network (www.nkp.be), a Network with 56 participating hospitals, rehabilitation centres and a homecare organization. The Network is managed by the Centre for Health Services and Nursing Research, Catholic University Leuven and the Dutch Institute for Quality Improvement. The 14 hospitals that participated in this study, were all working on clinical pathways for Total Knee Arthroplasty within their own organisation. Their multidisciplinary teams participated in the Taskforce on Orthopaedic Pathways within the Network. The study was initiated in response to multidisciplinary teams requiring benchmark data on their quality and efficiency of care.

Data analysis: descriptive, RIDIT and survival analysis were used to benchmark the data.

Results:

The benchmark report was confronting for the hospitals involved. This was the first time they had received such a report on their quality and efficiency of care. Although the sample size was relatively small, the data suggested areas for improvement for several hospitals. Differences between the hospitals were evident from clinical indicators as well as lengths of stay.

SURVIVAL DAY	Minimum Median day / hospital	Median Median day all hospitals (n=307)	Maximum Median day / hospital
90° Knee Flexion	5	6	14
50 meters walking	3	6	8
100 meters walking	4	7	10
Walking stairs	5	8	11
Length of stay	9	12.5	16

Based on the findings of this feedback report, new projects were initiated to improve the quality and efficiency of care. The task force suggested the measurement and benchmarking of these indicators every 8 months in order to provide a continuous follow up of the program.

Conclusions:

This first benchmark report on quality and efficiency indicators for total knee arthroplasty was confronting for several multidisciplinary teams. Based on these findings, the teams are asking for further follow up of the indicators. This report will guide the teams in their continuous quality improvement projects.