



## Service Priorities and Programmes Electronic Presentations

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### **Factors affecting length of hospital stay after Fast Track Total Knee Replacement Surgery**

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#### **Introduction**

Fast track total knee replacement surgeries are done in joint replacement center of the Duchess of Kent Children's Hospital in Sandy Bay. A comprehensive pre and post-operative management program, optimization of surgical procedures and pain control after operation are components involved in this fast track program with the aim to facilitate an earlier discharge and shorten length of hospital stay ( LOS )after surgery.

#### **Objectives**

To identify the most important factors that affect the length of stay and can contribute to an earlier discharge in fast track total knee replacement patients in DKCH

#### **Methodology**

Patients admitted to DKCH for TKR from June 2016 to February 2017 were recruited for this study. Patients' demographic data, social support and pre-operative assessments were performed that included: timed up and go test, 2 minute walk test, stairs assessment and walking aids assessment. Post-operative assessment also included pain level, mobility level and limb strength on different days after operation. Regression analysis was performed to identify the most important factor that facilitated a short hospital length of stay and early discharge.

#### **Result**

112 patients were included in this study, with mean age 67.8 years (SD 5.8). The mean hospital LOS was 5.5 days (SD 1.4). The strongest factors identified for a short length of hospital stay were: 1. Patient's ability to be able to walk on Day 1 (  $r=4.34$ ,  $p=0.00$ ), 2. No pain at rest on Day 1 (  $r=0.316$ ,  $p=0.00$ ) and 3. Ability to perform a straight leg raising on Day 1 (  $r=0.227$ ,  $p=0.00$ ). For the pre operative assessment, 2 minute walk test and use of walking aids were the identified factors.

Results show that rapid mobilization and ambulation as early as from immediate post operation together with good pain control pain are key factors in facilitating early hospital discharge for TKR. The outcomes also indicated that training before surgery might help to facilitate a shorter length of stay in hospital as well.