



## Service Priorities and Programmes Electronic Presentations

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### **Functional Outcomes of Patients with Total Knee Replacement**

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### **Introduction**

Older adults with osteoarthritis (OA) knee result in significant functional disability. Total knee replacement (TKR) surgery is an effective elective operation in managing patients with OA knee. Occupational Therapy (OT) provides specialized rehabilitation program which aim at early intervention to assess their home environment and needs of rehabilitation with the early engagement of the patients and carers. The post-operation rehabilitation program can facilitate early safe discharge, empower patients to manage their own disabilities, and engage them to resume active lifestyle.

### **Objectives**

To assess the functional outcomes of the OT program for the patients with TKR.

### **Methodology**

It was a retrospective study which recruited all patients admitted to Alice Ho Miu Ling Nethersole Hospital for TKR between 2015 to 2016. The patients were assessed with Modified Barthel Index (MBI) on admission and discharge, while Knee injury and Osteoarthritis Outcome Score (KOOS) were collected before and after the operation in 8 weeks' time. Knee circumference and Vancouver Scar Scale (VSS) scores at outpatient follow up period were used to assess swelling and scar condition respectively. Demographics data, ADL status, length of hospital stay (LOS) and discharge placement were also evaluated as rehabilitation outcomes.

### **Result**

223 patients (149 females and 74 males) with mean age  $67.4 \pm 6.9$  years (range: 53-86 years) were recruited in this study. 188 patients had undergone unilateral TKR and 35 patients had undergone bilateral TKR. Their mean LOS was  $6.9 \pm 2.2$  days. The mean MBI was  $67.6 \pm 14.4$  on admission and  $85.8 \pm 14.4$  on discharge respectively. Significant difference was detected on the mean MBI between admission and discharge ( $p < 0.001$ , pair t test). 79 sets of KOOS collected, a significant increase

in all subscales of post-operation KOOS scores was noted ( $p < 0.001$ , pair t-test). A significant decrease in knee circumference was also found,  $F(1.8, 54.2) = 15.02$ ,  $p < 0.001$ , but no difference noted in VSS scores. 122 out of 132 patients (92.4%) reached the premorbid ADL status (totally independent without aid) after operation for 6 weeks. For discharge placement, as expected, 96.8% of them returned to home after operation, 7 patients were discharged to old age home for temporary shelter support.

To conclusion, OT program was showed to be effective in improving functional outcome of patients with TKR and most patients could resume their premorbid ADL level after TKR for 6 weeks.