



## Service Priorities and Programmes Electronic Presentations

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### **Coordinated Pre & Post-Operative Physiotherapy Program for Total Knee Replacement cases in Prince of Wales Hospital**

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#### **Keywords:**

Total knee replacement

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#### **Introduction**

Patients undergone total knee replacement (TKR) in Prince of Wales Hospital would have a 5 to 7 days in-patient rehabilitation and continue physiotherapy in out-patient setting. In order to provide seamless and quality clinical journey for TKR patients, a physiotherapy team across in-patient and out-patient settings for the TKR cases was formed.

#### **Objectives**

To evaluate the clinical care pathway for TKR patients from in-to-out-patient setting

#### **Methodology**

15 TKR patients were recruited in this new team approach from October to November 2016. A designated team was formed for TKR program.

In the TKR rehabilitation journey, a structural physiotherapy assessment with standardized treatment protocol was started pre-operation and post-operation immediately. Active exercise approach with self-empowerment was delivered post-operation. It included pamphlet together with educational video including comprehensive exercise program, self-management tips, gait re-education and fall precautions skills. Walking aids prescription and outpatient physiotherapy was arranged upon discharge.

TKR patients continued OPD physiotherapy in an exercise class. Standardized treatment program included pain management, range of movement and strengthening exercise, gait re-education and self-exercise program.

Outcome measures including numeric pain rating scale (NPRS), Oxford Knee Score (OKS) and Timed-up-and-go-test (TUGT) were employed to detect the changes pre-operation and upon discharge from physiotherapy program.

Questionnaire was distributed upon discharge for Numeric Global Rating of Changing Scale (NGRCS) and satisfaction rate of the rehabilitation program and exercise class (a scale of 1-5: totally disagree-agree).

## **Result**

15 patients (5M, 10F) with mean age of 66.8 had completed the program. The mean treatment session was 5.4. It reported an overall improvement of 85.3% subjectively. The mean reduction in pain and TUGT were 2.00 and 6.94(sec) respectively while the mean increase of OKS was 12.27. There was statistically significant improvement in NPRS, OKS and TUGT with the analysis of paired t-test ( $p < 0.01$ ). In general, patients agreed that the exercise class was helpful to them (4.3 out of 5). The exercises prescribed in the exercise class were easy to handle (4.2 out of 5) and the patients' mean satisfaction rate for the program was 4.5 out of 5.

## **Conclusion**

The coordinated pre & post-operative physiotherapy program ensured a seamless, quality care for TKR patients after the surgery and enhanced their recovery process. TKR patients were highly satisfied with the OPD exercise class.