Early Physiotherapy Intervention is Effective in Pain Relief and Regaining Physical Function thus Shortening Length of Hospital Stay for Patients with Total Hip Replacement.

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Introduction
On 1 September 2014, the Total Joint Replacement Centre was set up in Pok Oi Hospital. With the collaboration of the multidisciplinary team, more patients were able to benefit from the operation with shorter waiting time. Physiotherapy is one of the disciplines which facilitates pain control and functional restoration, therefore can also contribute in shortening length of stay.

Objectives
To evaluate the effectiveness in pain relief, improving mobility and shortening length of stay for patients with total hip replacement after the establishment of total joint replacement center.

Methodology
All patients received total hip replacement surgery from 1 September 2014 to 31 December 2015 in Pok Oi hospital were recruited. Before admission, patients received education talks from physiotherapists and other professionals. Daily intensive mobility training was provided by physiotherapists after operation. To facilitate recovery, physiotherapists emphasized the importance of early mobilization and weight bearing training since post-operative day 1. Modalities such as ice and magnetic therapy would be given to patients for pain and swelling control. The pain score was recorded by numeric pain rating scale (NPRS) ranging from 0-10 in the first walk session and the day upon discharge from hospital. All patients were referred to physiotherapy outpatient clinics or geriatric day hospitals for further training. Timed Up and Go test (TUG), Six Meter Walk test and Functional Reach Test (FRT) were used to measure patients' mobility before surgery and on the day discharged from the outpatient clinic.

Result
48 patients with an average age of 58.46±11.38 were recruited. 9 of them were
discharged to the physiotherapy outpatient clinic in Pok Oi Hospital. The average length of stay in hospital was 11.29 days. Comparing with the corresponding average length of stay 16.82 from 1 September 2013 to 31 August 2014, the recent figure was reduced by 32.8%. The average pain score was significantly reduced from average NPRS 6.51 to 2.41 (p<0.05). For the patients received outpatient physiotherapy training in Pok Oi Hospital, their mobility was significantly improved. On average, the TUG was reduced from 24.1 second to 11.3 second (p<0.05); the Six Metre Walk test was reduced from 12.4 second to 6.0 second (p<0.05) and Functional Reach Test (FRT) was improved from 17.1cm to 23.0cm (p<0.05).

With the joint effort of different professionals in the total joint replacement centre, there were favorable outcomes in pain relief, mobility improvement and shortening length of stay, which could also reduce public healthcare cost.