Introduction
Obesity induces a number of medical problems, including diabetes and cardiovascular disease. Besides, metabolic syndrome rose in the population of obesity. Bariatric surgery promotes rapid weight-loss. However, if a physically active lifestyle has not been adopted, the weight returns. Physiotherapy management especially on proper exercise prescription should be the focus of post-bariatric surgery rehabilitation program for successful achievement and maintenance of weight loss.

Objectives
In this study, the effectiveness of physiotherapy management after bariatric surgery in terms of physical performance and quality of life was evaluated.

Methodology
Bariatric patients were recruited from the Endocrine Clinic of the New Territories West Cluster (NTWC) with body mass index (BMI) of about 30 to 40kg/m2. Patient received post-operative physical training with exercise guidelines as recommended by the American College of Sport Medicine. All cases received exercise capacity assessment and home exercises protocol (aerobic training, strengthening exercises, abdominal and upper limb muscle tone-up exercises, and diet monitoring). Parametric Paired-Samples T Test and non-parametric Wilcoxon Signed Ranks test were used to analyze the difference on performance in exercise capacity and quality of life including six-minute walk test (6MWT), incremental shuttle walking test (ISWT), the domain on general health perception, domain on role physical and vitality as measured by the
health questionnaire SF-36 pre-operatively and at 6-month post-operation.

**Result**

Results: 14 patients (5 males and 9 females) were evaluated after bariatric operation from Oct 2009 to June 2014. 64% of patients diagnosed with hypertension and 71% of patients diagnosed with diabetes. Mean age was 43.0 ± 10.3 years old (ranged from 32 to 72). Weight reduced from 105.5 ± 16.9kg to 81.9 ± 11.6kg (p<0.001) and BMI was also significantly reduced from 39.9±4.6 to 30.5±3.7 (p<0.001) from pre-operatively to post-operatively at 6 months. Exercise capacity as measured by 6MWT and ISWT showed statistically significant improvement. 6MWT increased from 432.1±103.5m to 575.7±139.5m, with p=0.004. ISWT increased from 396.4±113.6m to 552.9±173.4m, with p=0.003. Average aerobic exercise training intensity improved from 3.4±1.1 METS to 5.5±1.4 METS (p<0.001) after six-month training. For the quality of life, the domain of general health perception in SF-36 was improved from 40.4±20.3 to 70.3±19.0 (p=0.001). The domain on role physical of SF-36 was improved from 54.6±44.1 to 80.4±31.8 (p=0.035). In addition, the domain on vitality of SF-36 increased from 48.4±14.0 to 66.1±16.7 (p<0.001) after six-month training.

Conclusion: A life-long exercise program is critical to a bariatric surgery patient’s long-term success. The study provided preliminary data that physiotherapy management for patients who received bariatric operation showed significant & sustainable improvement on the exercise capacity and quality of life.