



**Service Priorities and Programmes**  
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**A Novel Exercise Program to Improve Quality Care for Prostate Cancer Survivors Receiving Androgen-Deprivation Therapy: A Pilot Randomized Controlled Study**

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**Introduction**

Prostate cancer is ranked the third most common cancer affecting Hong Kong male population. Androgen deprivation therapy (ADT) is a commonly used treatment but it could lead to a variety of adverse effects. Although more men with prostate cancer are living longer post-diagnosis, their well-being is largely compromised by the cancer disease, their associated treatment side effect and aging. Exercise has been proposed as an effective countermeasure to the detrimental effects on patients' health and quality of life. There is a need to establish suitable exercise program for prostate cancer survivors.

**Objectives**

1. To design a novel exercise regime which is suitable for prostate cancer survivors.
2. To investigate the effects of the specially designed exercise program on the fatigue level, physical fitness, functional performance and quality of life in patients with prostate cancer receiving ADT.

**Methodology**

Potential participants were screened by their treating oncologists and 17 patients were recruited in this single-blinded, randomized controlled study in early 2016. The exercise group (n=8, mean age=70.9±7.9) underwent an 8-week comprehensive training program consisted of stretching, aerobic and resistance exercise and core stabilization supervised by physiotherapist. The control group (n=9, mean age=70.2±5.7) received an educational talk and booklet. Primary outcome measure was fatigue level (Multidimensional Fatigue Inventory). Secondary outcomes included cardiovascular profile, muscle strength, endurance, balance and quality of life

(EQ-5D-5L).

### **Result**

The exercise group completed a mean of  $6 \pm 0.42$  (standard deviation) of the 8 exercise sessions ( $75\% \pm 5.28$ ). All patients completed the procedures without any dropout. Analysis of covariance was used to compare outcomes for groups at 8 weeks adjusted for baseline values and potential confounders. The exercise group showed significant reduction in mental fatigue aspect ( $p = 0.027$ ) and total fatigue score ( $p = 0.028$ ). The exercise group also demonstrated a significant improvement in muscle endurance in the 30-second sit-to-stand test ( $p = 0.016$ ). There were no adverse events for both groups during the intervention period.