



## Service Priorities and Programmes Electronic Presentations

**Convention ID:** 1046

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### **Pilot Study: Physiotherapy Chronic Obstructive Pulmonary Disease Rehabilitation Program in North Lantau Hospital**

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#### **Keywords:**

Chronic Obstructive Pulmonary Disease  
Physiotherapy  
Rehabilitation Program  
North Lantau Hospital

#### **Introduction**

Chronic Obstructive Pulmonary Disease (COPD) is a well-known progressive disease that leads to shortness of breath, sputum production, chest tightness etc. Nowadays, multi-disciplinary pulmonary rehabilitation program is the mainstream of service model and induces interest in evidence based management in health care setting to enhance functions of COPD patients. In North Lantau Hospital (NLTH), physiotherapists (PT) were engaged in the multi-disciplinary team to provide service for the COPD patients. The role of PT is mainly to empower the patients in physical reconditioning, dyspnoea management and lung function assessment.

#### **Objectives**

To evaluate the outcomes of COPD program in physiotherapy aspect.

#### **Methodology**

Patients who were referred to Day Rehabilitation Centre (DRC) in NLTH with diagnosis of COPD were recruited in COPD rehabilitation program except patients who are below MFAC class 2. Patients went through initial assessments carried out by nurses, occupational therapists and physiotherapists in first session of DRC. Exercise programs including cardiovascular training and limbs strengthening with onsite physiotherapist's instruction were operated 2 times (1.5 hr/ session) per week. Heart rate and SpO<sub>2</sub> were monitored during session. One session of disease educational class including medication usage and dyspnoea management would be finished within the rehabilitation period. Exercise tolerance (6 minutes walking test), lung function tests and self-efficacy test (COPD Assessment Test) were re-assessed after 8 weeks of DRC training. Finally, patients would be discharged after 12 weeks of rehabilitation in DRC.

## **Result**

From Apr 2015 to Mar 2016, 14 male ex-smoker subjects were recruited. 10 participants who are range from 65 to 85 years old completed the rehabilitation program. Among the 10 subjects who had finished the program, 60% of them showed improvement average 35.5 meters in 6 minute walking test ( $p=0.076$ ) and COPD Assessment Test. About the lung function tests, 80% of participants showed changes less than 20% in terms of FEV1 and FEV1/FVC. Half numbers of patient revealed mild improvement and half of them presented with deterioration.

Multi-disciplinary COPD rehabilitation program in NLTH seems to be positive to enhance COPD patients'™ exercise tolerance and self efficacy. However, the subject pool is limited and there is lack of control group. Further periodic and well-constructed evaluations are required to prove the effectiveness of the rehabilitation on program.