# Enhance the Effectiveness of Innovative Technology to Improve Pulmonary Rehabilitation of Chronic Pulmonary Disease Patients

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## **COPD** and Pulmonary Rehabilitation

In 2016, chronic obstructive pulmonary disease (COPD) is the 7th prevalent disease nationally, it is costing the national health insurance 1.3 billion annually for its treatment.

Breathing training is an easy method in pulmonary rehabilitation which can be included in the clinical practice to benefit **COPD** patients.

### **Education by Innovative Technology**

There is no guideline in COPD for how to perform a pulmonary rehabilitation. The nursing staff lacking the knowledge and tools as well as high clinical workload in nursing staff and new nursing employees.

This project will improve the following:

- Integration staff training programs and continuing education in pulmonary rehabilitation
- The involvement of Inter-professional practice including muscle training, medication counselling, education in nutrition and breathing training to improve patients quality of life
- Use of innovative technology for inservice education to enhance efficiency and learners satisfaction.

### Improve Pulmonary Rehabilitation

- In-service education training courses for nursing staff in clinical practice
- Inter professional practice to be incorporated into daily care

pulmonary rehabilitation exercises

use of bronchodilators counselling

special nutritional diet

The incorporation of information technology for online learning and evaluation, we provide the video for inpatients and their careers on performing pulmonary rehabilitation exercises



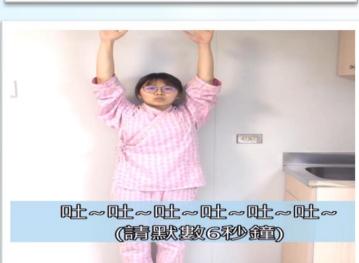


Nursing guide of Pulmonary Rehabilitation









The video of Pulmonary Rehabilitation





The QR code of the video about Pulmonary Rehabilitation exercises

#### Result

**Pre-test** 

**Post-test** 

Pulmonary rehabilitation exercise knowledge of nurses

**Before execution** 

After execution

**Pulmonary rehabilitation exercise rate of COPD inpatients** 

Patient satisfaction increased to 96%

#### **Conclusions**

Pulmonary rehabilitation breathing training can aid difficulty breathing, increase pulmonary function, exercise tolerability, quality of life and reducing hospitalization and hospital stays.

The team applied multimedia teaching materials to nursing education, Patientcentered of the characteristics and needs of patients and caregivers, Conduct Interprofessional on pulmonary rehabilitation exercise nursing education to improve the project, the project uses a mobile e-nursing car to play a video. The instructional time is about 10 minutes.

In the future, we would to program an APP system to management of COPD patient cases to achieve a better patient health care.

