"Well arranged home oxygen, better safety and confidence for patient" An empowerment program for newly graduated physiotherapists in Long Term home oxygen prescription

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Introduction
Long term oxygen therapy (LTOT) is one of the most commonly used medical treatments to support COPD patients at home. Its implication can also enhance patient’s quality of life by maintaining outdoor activities in community. Improper use of home oxygen may be associated with adverse effects such as oxygen overdose and fire risk, which directly affect patient safety at home. Physiotherapist therefore has a role in helping patients and care-givers to acquire knowledge in proper use of LTOT related equipment. However, newly graduated physiotherapists have not received any comprehensive training regarding LTOT which include the indication of oxygen therapy, operation safety and maintenance skill. An empowerment program can enhance the professional knowledge of newly graduated physiotherapists in order to ensure patient safety and confidence in operating LTOT related equipment at home.

Objectives
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1. To enhance the knowledge of newly graduated physiotherapists (less than one year experience) in oxygen therapy prescription
2. To improve the efficiency of LTOT arrangement
3. To increase the knowledge and confidence of patients and care-givers in operating LTOT related equipment

Methodology
This program included four phases: Preparation phase was to prepare all education materials for education talk, pamphlet and to establish education corner. Baseline knowledge of newly graduated physiotherapists on LTOT were assessed by quiz; Education phase was to provide education talk, introduce education corner and pamphlet to newly graduated physiotherapists; Implementation phase required newly graduated physiotherapists to deliver comprehensive education of LTOT to patients and care-givers and collected their feedback on process smoothness and service
quality of LTOT arrangement by questionnaire; Analyzing phase evaluated new physiotherapist’s knowledge on LTOT by repeating the quiz and collected their feedback on the program by questionnaire.

**Result**
The knowledge of all newly graduated physiotherapists (n=8) showed marked improvement with the mean score improved from 3.88 to 14.5 (total=15) by quiz. All participants agreed that the knowledge was useful and the program was helpful in LTOT arrangement. Furthermore, results of the questionnaire showed all patients and care-givers (n=17) were satisfied with the service provided by new graduated physiotherapists, 75% of them strongly agreed that the educations were practical and easily understood. The LTOT arrangements were smooth and they had more confidence to operate LTOT related equipment at home. We concluded that this empowerment program was effective and will adopt it for new graduates in future.