閱讀完以下英文摘要請回答下列問題：

1. 試述本研究計畫的動機和目的。(15 分)
2. 試述 COPD 患者進行運動訓練的主要困難原因。(15 分)
3. 依據摘要研究內容試述此研究的臨床重要性。(20 分)

Interval exercise versus continuous exercise in patients with moderate to severe chronic obstructive pulmonary disease--study protocol for a randomized controlled trial

BACKGROUND: Physical exercise has become a cornerstone of management of chronic obstructive pulmonary disease (COPD) because it leads to clinically relevant improvements of exercise capacity and health-related quality of life (HRQL). Despite the scarcity of randomized trials directly comparing exercise protocols, current guidelines recommend high intensity continuous exercise for lower extremities as the probably most effective exercise modality. However, for patients admitted to inpatient respiratory rehabilitation programs, it is often difficult to initiate such an exercise programe because they are severely limited by dyspnea and leg fatigue and therefore unable to perform continuous exercise at higher intensities and for periods longer than 30 minutes. Interval exercise may be an attractive alternative for these COPD patients because it allows high intensity exercise with recovery periods. The aim of this study is to assess if interval exercise compared to high intensity continuous exercise is not of inferior effectiveness in terms of HRQL and exercise capacity improvements but associated with better exercise tolerance in patients with moderate to severe COPD at the beginning of a respiratory rehabilitation. **METHODS/DESIGN:** We will assign patients with moderately severe to severe COPD to either continuous exercise or interval exercise using a stratified randomization. Patients will follow 12-15 exercise sessions during a comprehensive inpatient respiratory rehabilitation. Primary end point for effectiveness is HRQL as measured by the Chronic Respiratory Questionnaire (CRQ) two weeks after the end of rehabilitation and secondary endpoints include additional clinical outcomes such as functional exercise capacity, other HRQL measures, patients' experience of physical exercise as well as physiological measures of the effects of physical exercise such as cardiopulmonary exercise testing. Including expected drop-outs, we will need 52 patients per group to show differences corresponding to the minimal clinically important difference of the CRQ. Outcome assessors and investigators involved in data analysis will be blinded to group assignment until analyses have been carried out.

見背面

4. 請以任一慢性病爲例，說明身體活動（physical activity）對該慢性病的效果以及可能的機制。(15%)
5. 物理治療師具有諮詢轉介的專業角色，當你發現你的一名中風病人有明顯PAOD 的症狀，請問你會怎麼建議？如果他已有 ABI 的檢查，請問你對他的建議爲何？(10%)
6. 試用中文以結構式方式（含背景、目的、方法、結果、結論、臨床應用）改寫此一摘要，並且圖示實驗流程。(25%)

The effect of physiotherapy treatment on oxygen consumption and haemodynamics in patients who are critically ill

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The purpose of this study was to determine metabolic and haemodynamic changes with and without physiotherapy treatment in haemodynamically stable, intubated and ventilated patients. This was a prospective, randomised cross-over study. Ten intubated, ventilated and haemodynamically stable patients underwent a 20 min physiotherapy treatment and a 20 min period of undisturbed side lying. Mean oxygen consumption (VO_2mean) was measured on a minute-to-minute basis by indirect calorimetry. Mean arterial pressure (MAP) was recorded minutely from the indwelling arterial line and cardiac index (CI) was calculated from the indwelling pulmonary artery catheter. Time to recovery to within 5% of resting VO_2 was also recorded. The results showed no significant increase in VO_2mean with either positioning the patient in side lying or physiotherapy treatment ($p = 0.17$). Time to recovery to within 5% of baseline VO_2 occurred within seven minutes for all patients and there was no significant difference between either physiotherapy treatment or positioning in side lying ($p = 0.63$). There were no significant differences in CI ($p = 0.44$) or MAP ($p = 0.95$) during physiotherapy treatment compared with undisturbed side lying. It is concluded that physiotherapy treatment does not significantly alter VO_2mean or MAP and CI in stable intubated and ventilated patients. **[Berney S and Denehy L (2003): The effect of physiotherapy treatment on oxygen consumption and haemodynamics in patients who are critically ill. *Australian Journal of Physiotherapy* 49: 99-105]**

Key words: Intensive Care; Oxygen Consumption; Pulmonary Ventilation; Mechanical Ventilators

試題隨卷繳回