



Service Priorities and Programmes Electronic Presentations

Convention ID: 117

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Impact of Pharmacist-conducted Discharge Counselling for Chronic Obstructive Pulmonary Disease (COPD) Patients: A Pilot Study

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Keywords:

COPD

Pharmacist

Discharge Counselling

Inhaler Technique

Compliance

Clinical Pharmacy

Introduction

COPD is one of the leading causes of mortality in Hong Kong. Despite the availability of many effective treatments, the treatment goals are often not achieved. COPD exacerbation remains common and exerts consistent burden on the healthcare system. Apart from smoking cessation, pharmaceutical care to target medication use for COPD patients in Hong Kong was limited. While regimen modification is often seen at discharge, patients may not be fully aware of the change, which may lead to preventable unscheduled re-admission or Accident and Emergency Department (AED) visit.

Objectives

To determine whether pharmacist-led counseling at discharge can improve patients' technique for using inhaler and reduce unplanned Accident and Emergency Department (AED) visit or 30-day readmission for elderly with COPD.

Methodology

The study was carried out at Caritas Medical Centre (CMC), an acute general hospital under Hospital Authority (HA). A total of 83 COPD patients were assigned to intervention or control group according to their arrival time at Pharmacy for medication collection. For patients in the intervention group, an evaluation of baseline inhalation technique was first carried out, followed by a structured education about the correct inhalation technique and their discharge medications by the research pharmacist. The

counselling session was ended with another assessment of the inhalation technique. Telephone follow-up was arranged at two-week since discharge to assess on compliance. Each patient was followed for 30-day since discharge for any unplanned re-admission and AED visit.

Result

Although the current study failed to illustrate significant reduction in re-admission and AED visit, the results indicated significant improvement in inhalation technique ($P = 0.016$) in intervention patients when compared with control group patients. The improvement occurred mainly in the coordination steps of using a metered-dose inhaler (MDI), which is likely to enhance drug deposition in the lung and thus disease control of these patients. Compliance was satisfactory after the counselling session, with more than a half of the patients able to follow all prescribed instructions correctly. The enhanced patient outcomes as a result of the pilot service demonstrated the value of pharmacist care in COPD patients. Future study may focus on the subsequent impact on utilization of healthcare facilities, preferably with a cost-analysis to justify the need for service establishment.