



**Service Priorities and Programmes**  
**Electronic Presentations**

**Convention ID:** 371

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**Improving the care process for COPD patients by an empowerment program using an interactive telephone network delivered by trained volunteers**

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**Keywords:**

patient empowerment

telephone

volunteers

**Introduction**

Despite recent advances in medical treatment, COPD remains a major cause of global mortality and a heavy public health burden in Hong Kong. Adherence to medication has been implicated as an important factor affecting therapeutic efficacy, hospitalization and survival. As part of the COPD Non-government-organization Community Engagement Rehabilitation Network (CONCERN), a telephone programme was set up to line up volunteers and health care workers to empower COPD patients and improve care process.

**Objectives**

To evaluate the usefulness of a pilot telephone programme in enhancing care process and reducing utilization of healthcare resources.

**Methodology**

COPD patients were recruited from PYNEH Respiratory clinics and medical wards. Three volunteers were recruited from Patient Resources Center to receive a series of four educational lectures, in which respiratory nurse specialists taught about different aspects in COPD: physiology and pathology, common symptoms and coping strategies, importance of medication adherence, smoking cessation and vaccination. Instruction sheets and checklists were provided to the volunteers. The volunteers made phone calls to assigned patients once every two weeks for six months. Respiratory nurse specialists also provided ad hoc telephone consultation service, fast-track appointment to specialists' clinic, organization of vaccination and home-help services if necessary. At six months post-implementation, a structured telephone survey was conducted by volunteers to collect data on medication adherences. Medical records were reviewed to obtain healthcare utilization data.

**Result**

3 batches of a total 222 COPD patients were recruited. 149 patients completed the programme and data collection. All successful candidates were satisfied with the programme and found it useful in coping with their illnesses at home. They showed improvement in percentage of correct medication dosage (85.7% to 96.4%,  $p < 0.05$ )

and frequency (80.4% to 92.9%,  $p<0.05$ ). They had better compliance to the use of spacers for inhaled medications (94.6% to 100%,  $p<0.05$ ) and became more willing to wash spacers regularly (85.7% to 100%,  $p<0.05$ ). They also had improved clinic attendance (91.1% to 100%,  $p<0.05$ ). With telephone support, patients had reduced emergency department attendance (1.34 to 0.73 visit/patient), reduced hospital admissions (1.09 to 0.57 admission/patient) and reduced total length of hospital stay (6.89 to 2.68 days/patient). Conclusions: Our pilot interactive telephone programme improved care processes and outcome for COPD patients through collaboration between trained volunteers and health care workers.