Preventing Patients with Chronic Obstructive Pulmonary Disease (COPD) from Acute Exacerbation in Primary Care Setting: A 2-year Experience in the Integrated Chronic Disease Clinic (ICDC) in a General Outpatient Clinic (GOPC)
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Keywords:
Chronic Obstructive Pulmonary Disease
Primary Care
Multidisciplinary Care

Introduction
There were more than 14,000 Chronic Obstructive Pulmonary Disease (COPD) patients visited GOPCs 43,000 times in 2016. Improving quality of care can prevent COPD exacerbations, reduce hospital admissions and maintain patients functioning level and quality of life. The ICDC model aimed at providing early diagnosis and management of various respiratory diseases using Family Medicine (FM) approach. The components in ICDC included the use of spirometry for diagnosis, long-acting bronchodilators for treatment and updated vaccinations for prevention. It was further supported by a team of multidisciplinary professionals. It was established since 2/2016 with the input from FM doctors, nurses, physiotherapists and dietitians. We had also taken care of patients’ other comorbidities, such as diabetes and hypertension, during the same clinic session.

Objectives
To evaluate the various outcome measures from the 2-year experience (2/2016-1/2018) of this pilot clinic in Ha Kwai Chung GOPC, which include:
(1) Diagnosis and accurate staging of diseases where appropriate,
(2) History of COPD and asthmatic exacerbation, and
(3) Proportion of eligible patients who received pneumococcal and flu vaccine.

Methodology
Retrospective review of case records, spirometry and radiology reports of all patients recruited to this clinic from 2/2016 to 1/2018. Statistical analyses were done by SPSS.

Result
195 patients were referred to this clinic, mainly by GOPC (71%) or by abnormal spirometry findings (24%). Male to female ratio was approximately 2.3:1. The mean age was 68.8 years (SD 14.1) and mean number of other comorbidities was 2.0 (SD 1.6). The final diagnoses of these patients were COPD (56.4%), asthma (27.2%) and others (16.4%). There is one case of carcinoma of lung being diagnosed. 95.4% of patients had CXR done and 91.3% of patients had spirometry done within 2 years. 97% of COPD patients were staged according to GOLD guideline, 73% of them were
category B, C or D. Under ICDC, 12 (7.4%) patients attended GOPC for COPD or asthmatic exacerbation, only 8 (4.1%) attended AED and 2 (1.0%) admitted for in-patient management. 88.1% of eligible patients received pneumococcal vaccine and 85.3% of them received flu vaccine this year. 13 (6.7%) patients were referred to Medical Department for further management due to severe or unexplained symptoms. This new pilot clinic model of care offered promising results in the first two years. Further evaluations could be done to assess the feasibility to implement this model in other GOPCs.