A Clinical Audit of Diagnosis and Management of Chronic Obstructive Pulmonary Disease Patient in a General Outpatient Clinic in NTWC
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Introduction
Chronic Obstructive Pulmonary Disease (COPD) is a major cause of morbidity and mortality and will be the third leading cause of death worldwide in 2030. In GOLD guidelines 2015, it suggests combined assessment through symptoms score, GOLD classification of airflow limitation and exacerbation history which provide better assessment of disease severity and guide to the management.

Objectives
This audit aims to review the severity of disease of the COPD patients and the standard of care in a general outpatient clinic in NTWC compared to GOLD guideline.

Methodology
Retrospective reviews of CMS record of all COPD patients aged 19 or above in one general outpatient clinic in NTWC from January 2014 to December 2014 were conducted. Demographic data (age, sex, smoking status, co-morbidities), services provided (nurse clinic, smoking cessation clinic, spirometry tests, flu and pneumococcal vaccination), disease severity and management outcomes were reviewed. Those patients who were not followed up for COPD in that clinic were excluded.

Result
A total of 220 COPD patients (198 males, 22 females) with a median age group of 70-79 years were included. 64% patients were ex-smoker and 30% patients were current smoker. One third of all smoker and ex-smoker have attended smoking cessation service. About 30% of patients have 2 or more co-morbidities such as hypertension, diabetes or hyperlipidemia. Half of COPD patients have attended nurse clinic and performed diagnostic spirometry test. For those patients who had spirometry results (n=110), 58% belongs to GOLD stage 2 and 34%belongs to GOLD stage 3, of which 22% have exacerbations and need hospital admissions in the past year. Combined assessment showed 43% were categorized as grade C or above and
only 23% of these were referred to specialist care. Conclusion Deficiencies in diagnosis including inadequate use of spirometry test and combined assessment is observed. High risk patients with suboptimal management are also shown in the first cycle of our COPD audit. Improvement measures were implemented after the first cycle to address the deficient areas. The second cycle of COPD audit will be conducted in mid June 2016 to assess the effectiveness of the implementation measures.