



A Preliminary Analysis Of NHG Integrated COPD Programme (NICE)

in Tan Tock Seng Hospital (May – Dec 2005)

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INTRODUCTION

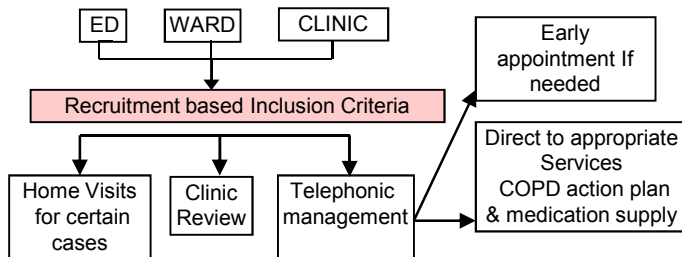
Chronic Obstructive Pulmonary Disease (COPD) is the seventh leading cause of admission and death in Singapore. There were 2400 admissions from COPD in 2004. A pilot COPD Home care programme started in TTSH in July 2002 showed that COPD patients can be successfully managed at home. Following this, the NHG integrated Chronic Obstructive Pulmonary Disease Programme (NICE) was launched in April 2005, involving 3 NHG institutions. TTSH NICE programme began recruitment in May 2005.

AIMS

1. Improve patients' quality of life and self-management of the disease
2. Reduce hospitalizations/readmission rate for acute exacerbation of COPD.

METHODS

Referral for NICE



Inclusion Criteria

- > Definite COPD (FEV1/FVC < 70%)
- > Agrees to participate in the programme and comply with telephonic case management and medical instructions
- > Willing to attend a smoking cessation Counselling programme and attempt to quit smoking

Exclusion Criteria

- > Do not fulfill the diagnosis of COPD
- > Complicated medical conditions that confers a poor prognosis e.g. advanced malignancy
- > Clinically unstable requiring mechanical ventilation and intensive care support
- > Refusal to participate in the programme
- > Cognitive or psychiatric disorders

Post Recruitment

- > Patients education is given. eg Disease process, medication dosage & compliance, proper inhaler technique & equipments usage.

Patients were encouraged to :

- > Attend smoking cessation counselling & quit smoking
- > Undergo influenza and pneumococcal vaccinations
- > Participate in Pulmonary Rehabilitation Programme (PRP)
- > Nutritional assessment and referral to dietitian if needed.
- > Referral to MSW for financial assistance and community resources linkage if needed.
- > Patients will be followed-up on telephonic Management

Clinic Review

Patients were reviewed regularly at outpatient clinic

- > St George Respiratory Questionnaire (SGRQ) is done to assess patients' quality of life
- > 6 Minutes walk test is done to assess patients' effort tolerance

Both tests are done at recruitment, 6th month and 12th month post recruitment to monitor patients' progress.

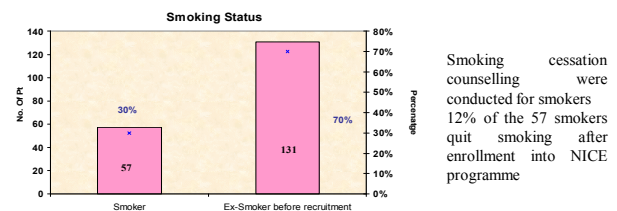
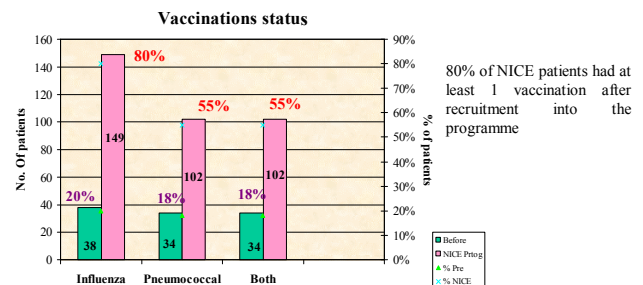
Data from patients were stored into the NICE database and NHG Central Clinical Research Database (CCRD). Microsoft Excel was used to generate graphical presentations of the analysis.

RESULTS

215 patients were recruited during May to December 2005, 16 cases withdrawal and 11 deaths. Of the 189 active patients, 98% are on telephonic management. The default rate for clinic attendance is 6%. NICE programme unscheduled readmission rate within 15 days during May to December 2005 is 3%-7% whereas the hospital readmission is 6.6%-19.9% during the corresponding period in 2004.

The characteristics of the patients are showed in the table :

Characteristic N= 189			
Gender	89% Males 11% Females	SGRQ score N=188	Mean (±SD) 38.2 (±15.6)
Age Mean (±SD) =78(±8)	<60 =4% 60-70 =23% 71-80 =53% >81 =20%	6 Minutes Walk Test N=112	Mean (±SD) 323m (±126)
Ethnic Groups	86% Chinese 10% Malays 3% Indians 1% Others	Home nebulizers	19%
COPD stage (GOLD)	4% Mild 29% moderate 48% severe 19% very severe	Home Oxygen	14%
Medications	94% on inhaled corticosteroid 98% on inhaled bronchodilators	Mortality N=11	5%



CONCLUSION

All data collected will be used as a baseline for future comparison as the programme progresses.

Analysis of the data revealed 80% of patients had at least 1 vaccination, either influenza or pneumococcal vaccination. There is a 60% improvement after the initiation of NICE programme. 12% smoking cessation rate was achieved. Data collected from the programme would allow clinicians to better manage patients and identify areas to improve in the delivery of care for the programme patients with debilitating chronic respiratory diseases.