INTRODUCTION

Chronic Obstructive Pulmonary Disease (COPD) is the umbrella term for a number of conditions including chronic bronchitis and emphysema. It is a progressive, irreversible lung disease which kills around 30,000 people in the UK — more than breast or prostate cancer. People who are at risk of COPD — have a persistent cough and frequent chest infections. Smokers, ex-smokers and those people whose lungs might have been damaged by working in dusty or smoky atmospheres are most at risk. There are a small number of people who develop COPD because of a genetic problem.

Over the last 10 years, a greater appreciation of treatment goals such as quality of life, improvements in activities of daily living and reductions in exacerbations, together with further research and new treatment options, have regenerated interest in COPD. At the same time, it has become clear that this disease causes a huge burden to both individuals and the health service. There are an estimated 3.7 million people with COPD in the UK. However, only 900,000 people have been diagnosed with the disease. Early diagnosis of COPD could lead to earlier intervention which might help improve symptoms, increase activities of daily living and quality of life, reduce exacerbations and even, through stopping smoking, limit disease progression. Studies have reported pick-up rates of COPD in smokers of between 10–20%. These have been reported to be achieved at modest cost and under clinic time.

COPD affects many people, particularly the most vulnerable in our communities. The progression of the disease is not likely to be halted but can be slowed down by stopping smoking. COPD can be characterised by frequent and sometimes preventable exacerbations and admissions to hospital and has high readmission rates. It is the third most common reason for hospital admission in Scotland. Scotland has many of the localities with the highest COPD admission rates in the UK. It is a major health issue. COPD is the only major reason for hospital admission in Scotland. Scotland has many of the localities with the highest COPD admission rates in the UK.

METHODS

The Greater Glasgow Health Board (GGHB) PROVIDE enhanced diagnostic and therapeutic services for patients with COPD included the provision of quality assured spirometry to primary care sector throughout Glasgow. Three trained Clinical Physiologists perform spirometry testing and well trained bronchodilator at various primary care sites distributed on regional basis covering the GGHB area. Over the 5 years that the service has been in operation, over 30,000 patients have been evaluated.

Results

Spironometry for the service measured by 94 KAT patients referred, while the NICE COPD, 2007 and the NOSM Spiro, COPD and CPIT (2%) SEIK: COPD based on NOS Criteria. In addition the service was able to identify patients with a significant response to reduced bronchodilator spirometry suggesting an addon component e.g. asthma and this service is in place to active treatment at baseline but showed bronchial hyperactivity (>200ml change) which may indicate possible asthma (300, 16%). In 2008, post bronchodilator spirometry was conducted in severe severity patients who may remain formally reassessed (30 patients had an spiog2 predicted of optimisation therapy with a confirmed diagnosis of COPD to be identified on a flow chart system (MRC Dyspnoea Score). Based on the criteria of >0% of patients with such a diagnosis of COPD. It was on an optimised spirometry, of those 342 (23%) were suitable for referral to pulmonary rehabilitation and with an MRC Dyspnoea score of >3. The service uses a flow chart system which allows the patient who develop COPD compared to smoking cessation advise and hence earlier intervention. The experience of case finding based on NICE criteria has shown an efficiency return of 44.7%.

Figure 1: NHS GGC Primary Care COPD Guideline.

Figure 2: Number of patients performing spirometry by year

Total Referred 41,186
Total Attending 30,897

New Diagnosis

5 patients suspected of having COPD based on smoking history: True diagnosis of asthma based on spirometry

2 patients with a previous diagnosis of asthma: True diagnosis of COPD based on post bronchodilator spirometry

18 patients new diagnosis of COPD based on spirometric findings

OUTCOMES

Incidence of patients with spirometry evidence of an FEV1/FVC Ratio <70% (post bronchodilator) and without a significant response to bronchodilator >200mls:

- Outright Spirometry Service 34.7%
- Total Number of Patients 30,897
- Total with COPD 10,570

Prior to 2004 a Direct Access Spirometry service was provided for North East Respiratory and Sleep Laboratory (1997/2008)

- Total with COPD 9,111
- Combined total to present 12,891

Incidence of COPD for NE Glasgow 3.5%

CONCLUSIONS

- This service does help to confirm specific abnormalities and demonstrates the need for accurate, quality spirometry in aiding the correct diagnosis of COPD and in helping to identify some patients with COPD.
- This service is used as a gateway to further management options including medication advice, pulmonary rehabilitation and oxygen assessment.
- It may also help to identify those patients with early changes associated with early airways disease, to allow reinforcement of smoking cessation advice and hence earlier intervention.

The greater Glasgow Health Board to provide enhanced diagnostic and therapeutic services for patients with COPD including the provision of spirometry to the primary care sector throughout Glasgow. Three trained Clinical Physiologists perform spirometry pre and post nebulised bronchodilator at various primary care sites distributed on a regional basis covering the GGHB area. Over the 5 years that the service has been in operation, over 30,000 patients have been evaluated. We have assessed the efficiency of this service in finding patients with COPD using the NICE case finding pathway and NICE Guidelines for COPD severity identification.