

Can nurses successfully diagnose and manage patients with COPD?

See linked article by Strong *et al.* on pg 67

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COPD is a highly prevalent chronic disease which can cost a country hundreds of millions of dollars per year. So it seems appropriate for as much of the diagnosis and care of patients with COPD to be managed by the most cost-effective health care providers as possible whilst maintaining quality outcomes.¹

The important study reported by Strong and colleagues² in this issue of the *PCRJ* examines a step forward in this process. In addition to the usual care system for patients with COPD, the city of Rotherham, England also has a specialist nurse-led respiratory care centre called "Breathing Space". This service is led by a respiratory nurse consultant and has a team of nursing, physiotherapy and occupational therapy staff providing outpatient assessment, diagnosis, and treatment of COPD. The authors evaluated the accuracy of a diagnosis of COPD from over 1200 consecutive patients referred to Breathing Space from the 36 general practices in the city. Around half of these patients were referred for pulmonary rehabilitation. About one in five patients did not have airway obstruction on pre-bronchodilator spirometry testing, indicating that the primary care provider's diagnosis of COPD was incorrect. There was poor agreement between the airflow obstruction grade recorded on the referral and that based on spirometry. Patients referred by a practice nurse were more likely to have been correctly classified when compared to patients referred from a general practitioner (GP). A similar study on the ability of practice nurses to perform spirometry and diagnose COPD correctly is underway in 36 GP offices in Sydney, Australia,³ and we look forward to seeing the outcomes.

The high rate of misclassification of the grade of airflow obstruction in primary care observed by Strong *et al.*² is important because the pharmacological treatment of COPD is based on the degree of airway obstruction. It follows that a standardised process to perform and interpret spirometry is needed. The PLATINO study, a population-based survey conducted in five large Latin American cities, showed that more than half of smokers with severe airway obstruction (FEV₁ <50% predicted) had not been previously diagnosed.⁴ On the other hand, about two-thirds of the adults with a prior COPD diagnosis had normal spirometry (which is incompatible

with COPD). In our opinion, inaccurate diagnostic labeling of COPD now represents an important health problem worldwide, not only in the UK and Latin America.

Improved use of spirometry by primary care personnel, such as trained nurses, should be part of a strategy to improve COPD diagnosis and management.⁵ However, it will be a challenge to transfer the assessment of patients at risk for COPD from secondary or tertiary care centres to primary care facilities. This "transfer" should be performed while ensuring quality control of spirometry performance and interpretation, as well as symptom assessment, using clinical practice guidelines which are not influenced by industry sponsors.⁶ Besides the applicability of nurses' standardised knowledge in terms of COPD diagnosis, multidisciplinary group participation within the practice is crucial. We can learn from the progress made during the past two decades in the management of another common chronic disease, type 2 diabetes mellitus. Nowadays, most patients with diabetes are successfully evaluated in primary care centres instead of expensive and sophisticated tertiary level centres.

In terms of study limitations, details were not given regarding the training, certification, and duration of experience of the respiratory nurses working at Breathing Space,² but these factors are important and differ widely from place to place. The majority of older patients with COPD have comorbid conditions (such as heart failure, obesity, anxiety, and depression), so the detection and treatment of these comorbid diseases is very important,⁷ but this is not described by this paper. Furthermore, the appropriateness and the efficacy of the treatments provided by Breathing Space for patients whose COPD was confirmed were not reported. Although they are unable to cure the disease, current COPD treatments can reduce shortness of breath, improve exercise capacity and quality of life, and reduce the frequency of acute exacerbations for some patients. Since smoking cessation is the only action that will slow the rate of disease progression, more enthusiastic and prolonged efforts should always be provided for current smokers with COPD. The most important clinical outcome measures – i.e. quality of life and morbidity (especially expensive respiratory-related hospitalisations), as measured by other studies^{8,9} – were not reported by this cross-sectional study, so we urge the investigators to consider these patients as a cohort and follow these important outcomes over several years.

Conflicts of interest The authors declare that they have no conflicts of interest in relation to this article.

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