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EDITORIAL

Outcome measures in COPD

This current issue of the Primary Care Respiratory Journal contains a Review article by John Haughney and Kevin Gruffydd-Jones [1] on patient-centred outcomes in primary care management of Chronic Obstructive Pulmonary Disease (COPD). All well and good – but why highlight this article through an editorial and why is this comment written by someone who is clearly not working in the primary care sector? The answer is simple: it is a good review, it addresses an important issue in respiratory care, and it highlights some principles that should be placed into a broader context.

COPD is a major cause of chronic morbidity and mortality worldwide [2], it is currently the fifth leading cause of death in the world [3], and further increases in its prevalence and mortality are expected in the coming decades [4]. For years, clinicians, physiologists, pathologists, and epidemiologists have struggled with the definitions of disorders associated with chronic airflow limitation. The definition of COPD as given by the Global Initiative for Chronic Obstructive Lung Disease (GOLD) is now rapidly gaining more generalized acceptance: “COPD is a disease state characterized by airflow limitation that is not fully reversible. The airflow limitation is usually both progressive and associated with an abnormal inflammatory response of the lungs to noxious particles or gases [5].”

Notably, this definition does not mention patient-centred outcomes, although it is widely accepted that the degree of airflow limitation in COPD is only loosely related to symptom severity, thus introducing difficulties to the process of disease staging. The recommended management of COPD, on the other hand, is largely symptom driven, requiring a pragmatic approach in order to assess disease severity and drug treatment. COPD

is defined on the basis of airflow limitation also for educational reasons, although in practice patients report on symptoms impacting on their lifestyle.

COPD is responsible for substantial health care utilization. In the UK, general practice consultations for COPD during one year ranged from 4.17/1000 in 45–64-year-olds to 10.32/1000 in 75- to 84-year olds [6]. These rates are 2 to 4 times the equivalent rates for chest pain due to ischemic heart disease. In the US, during 2000, COPD was responsible for 8 million physician office and hospital outpatient visits, 1.5 million emergency department visits (8.7 per 1000 population) and 726,000 hospitalisations (4.1 per 1000 population) [7].

In principle COPD can be diagnosed at any level of severity, combining patient history with the assessment of characteristic symptoms such as cough, sputum production, and dyspnoea on exertion, together with objective measurements of lung function. A recent survey in the United States has indicated, however, that out of 24 million individuals with evidence of airflow limitation, only 10 million had physician-diagnosed COPD [7].

COPD has a significant morbidity that is underestimated by health care providers and by the patients. In a recently published international survey, COPD patients seriously underestimated their morbidity as shown by the high proportion of them with limitation of their basic daily life activities, frequent absence from work (45.3% of COPD subjects of age less than 65 reported absence from work in the past year), and frequent use of health care [8].

In fact, their disease has a major impact on the health status of patients with COPD [9]. Impaired exercise performance and functional capacity are associated with poorer health status. The presence

of daily symptoms and a high exacerbation frequency are other important factors. Anxiety and depression are quite common in patients with COPD and again contribute to poor health status. Elderly COPD patients show a substantial impairment in health status depending on the severity of airway obstruction, and symptoms related to the disease may be exaggerated by mood deflection [10].

Therefore it is obvious that more complex outcome measures are of great interest to every practicing physician. I am not quite sure, however, whether the clinical trials that prompted this review have sufficient relevance to primary care; indeed, I think they don't. I was surprised that clinical studies such as these, often accused of being far removed from clinical reality and from the needs of primary care, served as source documents for the review article published in this issue. Nevertheless, it will stimulate an important discussion on patient-centred outcomes for which the authors need to be commended. The big task now lies in the implementation of some of these measures, the strengths and weaknesses of which have been discussed by the authors. Perhaps I am too pessimistic as a non-member of the primary care community, but I would predict that without proper educational strategies the objective assessment of dyspnoea, health status, exercise capacity and the severity of exacerbations (a term for which we are without an agreed definition) will still be a major undertaking. So far we have even failed to convince many in the medical community that measurement of lung function is essential in order to make the diagnosis of COPD.

We do now have evidence that the composite measures of lung function, dyspnoea, exercise capacity and body mass index can predict mortality [11]. The usefulness of these and other more patient-centred outcomes outside clinical trials need to be studied for their role in COPD management, and not only in primary care [12]. The review article by John Haughney and Kevin Gryffydd-Jones has helped us to think about future strategies as to how to do this.

References

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24 September 2004