SHORT COMMUNICATION

Reply to: Spirometry and peak expiratory flow in the primary care management of COPD

by Patrick White

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Basically, Dr. White [1] argues that we do need spirometry to establish a diagnosis of chronic obstructive pulmonary disease (COPD), but that subsequently we should use peak expiratory flow (PEF) measurement to assess airway calibre during 'normal acute consulting' and 'day-to-day management of COPD'. It is interesting that so much emphasis is laid on the repeated measurement of milliliters under all circumstances by a GP who wants to represent the average colleague dealing with time restrictions in daily practice. A COPD patient presenting to me with an acute exacerbation is not required to do any lung function; rather I'd look at him (how ill does he look?, does he use accessory muscles?) and listen to his speech (will he complete sentences?) and naturally listen to the lungs. Most importantly I will ask how sick he feels, how many steps he is able to take and what is the time course and progression of symptoms in relation to his earlier experiences. PEF measurement (or for that matter spirometry) does not add much in that situation; it rather wears the patient out. If I were to do a diagnostic test it would be an oxygen saturation measurement which is non-invasive and does not pose a burden to the patient. This could provide additional information for referral if one suspects respiratory failure [2].

Using PEF measurement in day-to-day management is a possibility, but again one really wonders why? Asthma certainly is a variable disease state that needs monitoring when unstable, or when the (mostly adolescent) patient needs to gain insight in the fluctuating nature of airway obstruction and how to control it by medication. COPD is entirely different. Mostly elderly patients need to learn about the self-enforcing negative spiral of physical inactivity and social deprivation. They need to recognize the danger of weight loss and the importance of nutrition plus exercise. Most importantly, they need to stop smoking and continue abstinence over the years to come. The tools to reach these goals are education, self-management, regular physical activity, dietary intervention and smoking cessation programs. All these elements should ideally be integrated in a disease management program, and this could in turn be coupled to an annual office visit which includes a lung function measurement. I always use this moment to stress the importance of all elements mentioned above and feel greatly supported by the visual explanation the flow-volume curve provides. Also, I am happy to assess any degree of reversibility (which is quite variable in time) because it might justify the use of inhaled corticosteroid therapy; I am relieved when obstruction has not accelerated in the past year, and always point out the clear mid-expiratory loss of airway function as the main reason for all the hard work and effort put into the program. Without it, I would find it much harder to keep the patient and

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Figure 1 A new respiratory patient performed a bad pre-bronchodilator test (flat peak) but improved technique after salbutamol, suggesting reversibility. However, attention should be paid to possible restriction (arrow), which would have remained unnoticed by looking at PEF alone.

primary care team motivated. Moreover, without spirometry and the flow-volume curve, I wouldn't know if I was missing a patient with some restrictive airways disease (Fig. 1), which may justify an entirely different intervention.

Regular PEF measurement would probably be much better than no measurement at all, but in patient with moderate COPD, one would still want regular spirometry to check for referral indications, such as an FEV1 of less than 50% predicted, at which point mortality begins to increase [3]. Furthermore, many practices are already equipped

with a spirometer, and it simply does not make sense to use both test modalities. Zielinski has described how in Poland spirometry has been the key to his successful national smoking cessation program [4]. In the Netherlands, several pragmatic primary care studies have shown that spirometry is feasible, valid and interpretable in daily practice [5-7]. However, White still claims that spirometry is too complex and takes too much time in British primary care. In the end, whether or not one decides to use regular spirometry comes down to local circumstances, personal motivation and practice routine; but let's agree that it can be done if one prepares for it, even in primary care.

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