



ELSEVIER

LETTER TO THE EDITOR

Re: Spirometry vs. peak flow in COPD

Dear Sir,

In his review [1] of the relative merits of spirometry and peak expiratory flow (PEF) in primary care management of COPD, Patrick White quotes our paper [2] in support of "the superiority of PEF over forced expiratory volume in the first second (FEV₁)". This misinterprets our results and was certainly not the message of the paper.

The main conclusion of our study was that the relations between FEV₁ and PEF were broadly similar when measured in a cross-sectional survey of subjects with varying severity of airway obstruction and sequentially within individuals during steroid trials. There was, however, considerable variation in this relationship between different individuals. As is apparent from the considerable functional improvement illustrated, many of the patients in the sequential study had chronic airway obstruction due to asthma rather than COPD. However, this diagnostic distinction is not germane to the conclusion as there is no evidence that the relations between PEF and FEV₁ show consistent differences between asthma and COPD.

Like Dr. Morgan in the accompanying editorial [3], I disagree with White's view that measurement of FEV₁ is difficult to incorporate into routine consultation. Some of the apparent advantages of PEF result from less stringent criteria than those recommended for FEV₁. Also, PEF is intrinsically a more effort-dependent measurement than FEV₁. Although peak flow meters retain advantages of portability and low cost, even these are diminish-

ing with increasing availability of small inexpensive spirometers.

Dr. White asks "why should PEF be less useful in measuring changes in airway calibre in COPD than it is in asthma?" Perhaps a more appropriate question would be "why should FEV₁ be less useful in asthma than it is in COPD?" Performing PEF measurements is certainly better than spurious attempts to quantify wheezing by stethoscopy, but why use a "cheap and cheerful" second-rate measurement when a simple first-rate one is available?

Yours sincerely,

References

- [1] White P. Spirometry and peak expiratory flow in the primary care management of COPD. *Primary Care Respiratory Journal* 2004;13:5–8.
- [2] Kelly CA, Gibson GJ. Relation between FEV₁ and peak expiratory flow in patients with chronic airflow obstruction. *Thorax* 1988;43:335–6.
- [3] Morgan MDL. FEV₁ or peak flow for measuring airflow obstruction in primary care. Is it a useful debate or just missing the point? *Primary Care Respiratory Journal* 2004;13:3–4.

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