

From the authors:

We thank N.H. Chavannes and T.R.J. Schermer for their interest in our recent article [1]. The letter is an important contribution to the ongoing discussion on spirometry testing in primary care for the diagnosis and management of chronic lung diseases [2]. The study by SCHERMER *et al.* [3] found that spirometry testing in the primary care setting was of comparable quality to spirometry testing in a hospital-based lung function laboratory.

We congratulate SCHERMER *et al.* [3] on their excellent and, up to now, difficult to reproduce results. Several factors favoured good comparability of the results in their study. All subjects had a diagnosis of chronic obstructive pulmonary disease (COPD) and had previous experience with spirometry testing. All subjects were first tested by an experienced pulmonary function technician and a few days later in the primary care setting. Primary care offices chosen to participate in the study had an average of several years' experience in performing office spirometry. However, 18% of tests did not meet the American Thoracic Society goals for forced expiratory volume in one second (FEV₁) repeatability.

In our study [1], we aimed to detect airflow obstruction in smokers without a previous diagnosis of lung disease. Of the 110,000 subjects screened, ~70% had normal spirometry. No subjects had previously performed spirometry. We felt that, in such circumstances, reliable spirometry was crucial to avoid false positive results leading to unnecessary stress, prescription of unnecessary treatment, and additional costs to verify spirometric values. Recently, ENRIGHT *et al.* [4] reported excellent repeatability in 18,000 spirometries performed by certified technicians. Ninety per cent of patients were able to reproduce FEV₁ within 120 mL, and forced vital capacity within 150 mL.

We entirely agree that considering the enormous number of subjects with chronic respiratory problems, the majority of spirometric tests should be performed at a primary care level. International guidelines indicate that spirometry is necessary for the diagnosis and management of COPD and the proper management of asthma.

However, that is easier to say than to implement. First of all, primary care physicians (PCPs) must be convinced of the feasibility and practical usefulness of spirometric measurements in the routine management of COPD and asthma. This has been very difficult. More than 10 yrs have passed since KESTEN and CHAPMAN [5] reported that only 21% of PCPs requested spirometry to diagnose COPD. Recent studies by KAMINSKY *et al.* [6], BOLTON *et al.* [7] and LUSUARDI *et al.* [8] have demonstrated that the use of spirometry in primary care remains very low.

Another important point is the training of personnel performing spirometry in the primary care setting. A 3–4-h hands-on training session, closely supervised by a certified lung-function technician, should be obligatory. For the first few months, samples of spirometry tests performed by each technologist should be sent to a reference lung-function laboratory for quality-control checks and reports. After every break from

regular performing of tests, refresher training should be obligatory.

Good-quality measurements in the primary care setting would be more likely if reliable, user-friendly, inexpensive office spirometers with in-built quality-control software [9] were widely available to prompt good-quality measurements.

Pulmonary specialists and primary care physicians should work together to determine optimal methods for the detection of chronic obstructive pulmonary disease in smokers. There is no ready solution that would apply to all countries and all settings. The detection of chronic obstructive pulmonary disease should be performed by primary care physicians in smokers registered in their practice. Diagnosis of chronic obstructive pulmonary disease is an opportune moment to start smoking-cessation counselling. Our experience showed that using spirometry results to reinforce anti-smoking advice resulted in complete smoking cessation by 15% of recently diagnosed chronic obstructive pulmonary disease patients [10].

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DOI: 10.1183/09031936.00096906