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<http://dx.doi.org/10.4104/pcrj.2012.00033>

Conflicting standards for diagnostic spirometry within-session repeatability are confusing

Dear Sirs,

Following the publication in this journal of the Standards document 'Diagnostic Spirometry in Primary care: Proposed standards for general practice compliant with American Thoracic Society and European Respiratory Society recommendations' by Levy *et al.* in September 2009,¹ Fletcher & Loveridge² from Education for Health felt compelled to challenge the 'soft' limit of 150ml for within-session repeatability included in the document and stated that this should be reduced to 100ml. There was further discussion³ around this point, and the assumption was made that further research would provide clarification.

Two years on, guidelines and international primary care resources continue to offer conflicting advice as to whether 100ml or 150ml should be the standard for within-session repeatability, and there still appears to be a lack of research in this area.

At the time of Fletcher and Loveridge's original letter,² Education for Health undertook an audit of the within-test repeatability of spirometries within the portfolios of 10 recently successful students. These all demonstrated within-test repeatability of between 30-70ml in real patients with respiratory disease.

All Education for Health spirometry students are assessed (and indeed pass or fail) on the Association for Respiratory Technology and Physiology (ARTP) 100ml standard,⁴ with the majority achieving lower than 100ml within-session repeatability in three to four relaxed and forced blows. Respiratory Education UK and the ARTP also assess their own students to this standard, and – as outlined in Brendan Cooper's later *PCRJ* response⁵ – all physiologists are expected to achieve this.

Interestingly, the recently published GOLD guidelines (GOLD 2011)⁶ have reverted from 150ml to a lower limit of 100ml or 5%, whichever is greater.

In contrast, however, the PCRS-UK has adhered to 150ml as the standard for within-session repeatability in all its materials and advice,

including its spirometry audit, in line with the 2009 *PCRJ* publication.¹ As members of the PCRS-UK Education Committee, we are increasingly concerned that conflicting standards are confusing for primary care health professionals. We look forward to further debate on this issue, and also respectfully request the authors of the original paper to provide further clarification on this issue.

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Received 24th April 2012; accepted 3rd May 2012; online 23rd May 2012

Conflicts of interest CL, RMc and SW are employees of Education for Health. HP and DB are Associate Editors of the *PCRJ*; neither were involved in the editorial review of, nor the decision to publish, this article.

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Why do patients not attend community-based pulmonary rehabilitation, and how can attendance be improved?

Dear Sirs,

We read with great interest the paper by Zakrisson *et al.*¹ in the December 2011 issue of the *PCRJ*. We thank and congratulate the authors for their interesting work.

Of particular interest to us is the issue of patients not attending a pulmonary rehabilitation (PR) programme and the reasons behind this. NICE guidelines for COPD² recommend pulmonary rehabilitation for all patients who are functionally disabled due to their disease. In Zakrisson's study, out of 83 patients allocated to the PR intervention

group, 56.6% completed the full programme, 2.4% dropped out before the end, and 41% declined to participate altogether.¹ The reasons for not attending at all or leaving the programme before its completion were: patients leaving town (5.6%); their condition being bad (2.2%); they would not participate in groups (8.3%); and the time of the sessions being unsuitable (2.8%). The biggest group was where the reason was described as "other". Full details of the reasons in this group were not specified.

In the semirural county of Somerset, UK, PR is provided in community-based centres. Patients are referred from primary as well as secondary care, and the PR programme runs for a period of six weeks. Attendance in this programme was poor, but the reasons for this had not previously been investigated. We therefore carried out a