Research Hospital, Italian Institute of Auxology, Milan, and[¶]Center for Sleep Disorders, Dept of Neurological Sciences, University of Bologna, Bologna, Italy.

STATEMENT OF INTEREST

None declared.

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Lung volume measurements

To the Editor:

I read with interest the impressive paper by CAZZOLA *et al.* [1] in a recent issue of the *European Respiratory Journal*.

However, I felt somewhat uneasy reading the recommendations on lung volume measurements, *i.e.* closing circuit dilution methods and body plethysmography.

CAZZOLA *et al.* [1] state "either method can be used... However they are not interchangeable, since moderate-to-severe airflow obstruction dilution methods tend to underestimate and body plethysmography tends to overestimate TLC".

Therefore, according to CAZZOLA *et al.* [1], in moderate-to-severe airflow obstruction no method is accurate. What, therefore, is the choice? To accept underestimation of lung volume since the dilution methods are "less expensive and less demanding"? Or, in spite of the overestimation of total lung capacity, to use a body plethysmograph, since it is "time saving"?

In fact, dilution methods do underestimate lung volume in moderate-to-severe airflow obstruction [2–4]. The more severe the airflow obstruction, the larger the underestimation [4].

Body plethysmography might indeed overestimate total lung capacity in airflow obstruction if incorrectly measured [5, 6]. However, the plethysmographic method is accurate even in moderate and severe airflow obstruction by breathing or panting at <1 Hz [7, 8].

D. Stanescu

Medical School, Catholic University of Louvain, Brussels, Belgium.

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