

values in Europe are still those implemented by the European Coal and Steel Community (ECSC) [2] and the ERS [3]. The ATS/ERS Task Force has not commented on newer reference values for spirometry derived from the Swiss Study on Air Pollution and Lung Disease in Adults (SAPALDIA) [4, 5].

It has previously been pointed out that the main differences between the ECSC and the SAPALDIA reference values comprise the following two factors: 1) a shift to higher reference values; and 2) a nonlinear age dependency derived from newer studies [6]. It is highly plausible, and it has been corroborated by newer reference values, that there is a natural growth in values, followed by a steady change over and then a slow but growing decrease with age; the values are near optimal in ~18-yr-old females and ~25-yr-old males [4, 7].

It is of great importance, especially for longitudinal epidemiological studies, that age dependency at younger ages is highly different between the ECSC values (where it remains constant between ages 18 and 25 yrs, and is linear thereafter) and the newer reference systems (where it is nonlinear and shows a maximum). For example, the decrease in forced vital capacity (FVC) for a 180-cm tall male aged 21–50 yrs using the ECSC reference values is 22.4 mL·yr⁻¹, but only 9.1 mL·yr⁻¹ using reference values derived from SAPALDIA. Thus, decreases in FVC in longitudinal epidemiological studies will be detected with lower sensitivity if one uses the ECSC reference values.

The ECSC reference values for spirometry are not derived from measured data but, according to [2], from older reference equations that were obviously a combination of those from different researchers: "For each of the regression equations, a set of reference values was computed for each combination of height and age within the ranges given by the author [...] The summary equations as well as the residual standard deviations were calculated without weighting for numbers of subjects [...] In most publications, lung function is assumed to decline linearly with age in adults. However there is evidence that in young adults this is not the case (8 citations), and that the transition between the growth in adolescents and the decay with age in adults occurs at about 18–30 years of age [...] [2]. We want to add that it is not known whether smoking was considered. Approximately 10 yrs ago, BAUR *et al.* [6] and ROCA *et al.* [8] concluded that the present European recommendations on lung function reference values should be reconsidered, because "[...] the errors about the ECSC equations showed the most prominent underestimation of both predicted FVC [...] and predicted FEV₁ [forced expiratory volume in one second]" [8].

Newer reference values derived from SAPALDIA are based on ~3,000 healthy nonsmoking 18–60-yr-old Europeans and meet the methodological, epidemiological and statistical criteria of the ATS for the selection of reference values [9, 10].

We suggest that the European Respiratory Society should withdraw immediately their official statement to use the European Coal and Steel Community reference values for spirometry as these are both incorrect and misleading. Furthermore, we question the need for a new study as an appropriate alternative is already available.

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STATEMENT OF INTEREST

None declared.

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DOI: 10.1183/09031936.00145507

From the authors:

We thank P. Degens and R. Merget for giving us the opportunity to comment on the reference equations suggested by the American Thoracic Society/European Respiratory Society Task Force on lung function testing [1].

We agree with P. Degens and R. Merget when they say that the European Community for Coal and Steel reference equations for lung function are too old to be used in modern medicine due to their limitations in predicting lung function in the general population. Recognising this as an unresolved issue in the evaluation of lung function, the Task Force did not actually recommend "any specific set of equations for use in Europe"; instead, it suggested "the need for a new Europe-wide study to

derive updated reference equations for lung function" [1]. The latter appears to be the central issue raised by P. Degens and R. Merget with regard to the article [1]. The authors state that it is not necessary to move on with the European project as updated equation references already exist [2]. This is where we are compelled to disagree.

Apart from the fact that the Swiss Cohort Study on Air Pollution and Lung Diseases in Adults (SAPALDIA) was cited along with many others in table 1 of the article [1], we are not convinced that a study conceived to derive only simple spirometric parameters, in a limited central European area and over a modest lifespan, could qualify as a comprehensive set of references for a continent. While it is important to appreciate the scientific level of the SAPALDIA, which meets standard methodological, epidemiological and statistical criteria, we believe that the new European references should include not only spirometry but also lung volumes, diffusing lung capacity for carbon monoxide and perhaps other tests, all possibly derived from the same subjects; it should cover most of the countries, and expand the lifespan as much as possible owing to the continuous ageing forecast.

With this in mind, and in the same way as many other national studies conducted in Europe over recent years that are listed in American Thoracic Society/European Respiratory Society document, the Swiss Cohort Study on Air Pollution and Lung Diseases in Adults reinforces the need for periodically updating the reference values. While waiting for the possibility

to perform a new pan-European study, perhaps through a pool of private and public grants, the availability of the Swiss Cohort Study on Air Pollution and Lung Diseases in Adults reference values will certainly be of great help for the Swiss pulmonary function test laboratories.

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STATEMENT OF INTEREST

None declared.

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DOI: 10.1183/09031936.00156607

Smoking: leading by example?

To the Editors:

"Smoking kills", "Smoking seriously harms the health of you and others around you" and "Smoking clogs the arteries and causes heart attacks and strokes" are among the statements now seen frequently on the packaging of tobacco products in the UK, such statements having become a legal requirement in 2003. Following a recent UK directive, cigarette packages will carry picture warnings by the end of 2008 [1]. No one can argue that smoking is not bad for health. The effects on health of smoking remain a topical issue as more and more countries ban smoking in all enclosed public places and workplaces.

England became smoke-free in July 2007, following the lead of other countries such as Ireland, Italy, Malta, Norway, Sweden and Scotland, who have all banned smoking in enclosed public places. France has introduced some restrictions and plans to impose a complete ban in January 2008. The USA has a ban in some states and India plans to introduce smoke-free public buildings in its capital by 2009 [2, 3].

Respiratory physicians, as a group, have played a large part in advocating this ban, with groups such as the British Thoracic Society Tobacco Committee forming to discuss action plans. Indeed, at the 2007 European Respiratory Society (ERS)

Congress, there were over 200 presentations and posters containing "smok" (*i.e.* the terms smoke, smoking or smoker) in the title, and many more on the topic of smoke and smoke-related health problems, not including these words in the title [4].

We were therefore surprised, no, shocked to see such a large number of ERS congress delegates smoking. The expression "do as I say, not as I do" is widely known in the UK. Although it is difficult to contest the presumption that everyone, even respiratory doctors, have a right to do as they wish, the inherent contradictions of respiratory physicians knowingly damaging their own lungs and the health of those around them remains stark.

At the recent ERS Congress, with delegates wearing easily recognisable Congress badges and blue rucksacks seen all over Stockholm (Sweden), such hypocrisy must have been puzzling to the average Swedish bystander.

How can we ever expect the public to listen to what is said about the harm of smoking and take note when they can see that we as a group of professionals are not heeding our own advice? So, a plea to all those attending future congresses: if you must smoke, at the very least anonymise yourself first!