A recent study [5] has compared N_2 LCI with SF_6 LCI obtained with the gold standard method. Significant differences were found, and the authors concluded that independent normative values are required and that interventional studies are needed to clarify the role of N_2 LCI as an outcome measure in clinical trials in cystic fibrosis patients. The limits of agreement between N_2 and SF_6 LCI in cystic fibrosis patients were >7 LCI units, far in excess of the treatment related change reported in the Ivacaftor study of 2.1 units [3].

Finally, both the editorial [1] and the consensus statement [2] reported that the SF_6 mixture required to perform LCI testing is often not universally available and not approved. This is a misunderstanding. The mixture used with the Innocor system is an off-the-shelf, 150-mL gas tank in the European Union, the USA, Canada and in all other European countries where Innocor is used.

If the reference for clinical use of the LCI test is the scientific data obtained with the gold standard mass spectrometer device over many years of research, the suggestion to switch to N_2 LCI is premature and scientifically unfounded. Notwithstanding the well recognised problems of indirect N_2 measurement and the physiological effects of pure O_2, recent research has also highlighted that N_2 back diffusion may be much more important than previously thought.

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Multiple-breath washout: nitrogen or sulfur hexafluoride? http://ow.ly/pUW49

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From the authors:

We thank J.G. Nielson for his comments about our editorial related to the consensus statement for inert gas washout measurement using multiple- and single-breath tests recently published in the *European Respiratory Journal* [1, 2]. Given that we are unable to identify relevant new information concerning the topic at hand, we prefer not to add any further comments and kindly refer to the previously mentioned, very elaborate, consensus statement [2].

@ERSpublications
Consensus statement for inert gas washout measurement http://ow.ly/rm6nI

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