P0334
EVALUATION OF A SHORTENED VERSION OF THE DOSIMETER METHOD FOR BRONCHOPROVOCATION WITH ADENOSINE-5'- MONOPHOSPHATE (AMP)
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We evaluated a shortened protocol for AMP-bronchoprovocation (quadrupling doses) by comparison with the standard dosimeter protocol (doubling doses). In addition, reproducibility of the shortened protocol was determined.

Volunteers underwent AMP-bronchoprovocation on three occasions: once by standard protocol, the second and the shortened protocol. Both the standard and the shortened protocol were tested in 41 subjects. Six out of them had a PD20 (0.05-30.48 mg) by the standard protocol; five had a PD20 in both standard and shortened protocol. The shortened protocol was tested in 42 subjects. Ten out of them had a PD20 (0.01-30.70 mg) once. In 36 subjects the shortened protocol was tested twice: eight subjects had a PD20 in both times; two reacted only once.

Reproducibility of the shortened protocol is good (Kappa=0.86; 95% C.I. 0.66-1.00). Agreement between the standard and shortened protocol is moderate (Kappa=0.53; 95% C.I. 0.16-0.90), due to the larger number of subjects with a PD20 in the shortened protocol (n=9) compared to the standard protocol (n=6). In those having a PD20 in both the standard as well as the shortened protocol (n=5) average PD20 is somewhat higher in the standard protocol. The mean difference in doubling doses (log2PD20) is 0.14 (95% C.I. 1.33-1.61).

Although the shortened protocol has a greater sensitivity, the difference in PD20 between standard and shortened protocol is within three dose-steps. Thus, the shortened protocol is an accurate tool in epidemiologic surveys.


P0335
OPINION RECOMMENDED, BUT NEVER DONE: RECALCULATION OF MINIWRIGHT MEASUREMENTS
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Aim: To analyse the potential impact of non-linearity in miniWright peak expiratory flow (PEF) measurements. Non-linear characteristics of the miniWright PEF meter have been described earlier and it was pointed out that both absolute PEF levels and measures of PEF variability are distorted.

Methods: In the SAPALDIA longitudinal data bank measurements from 3,281 subjects are available. 100 PEF meters were subject to a quality control and shortened protocol. The shortened protocol was tested in 42 subjects.

The accurate prediction of ventilatory function development of an individual during adolescence is hampered by the large inter-individual variation in pubertal growth patterns, and the phase difference between growth of ventilatory function and standing height. Neither is accounted for in the commonly used cross-sectional reference equations which makes these equations less efficient for monitoring ventilatory function growth. We studied if adolescent development of FVC and FEV1 could be more adequately modelled utilising longitudinal data and methods, by fitting an autoregressive model. Intra-transformed FVC and FEV1 were predicted from the previous FVC or FEV1 measurement, age, and individual PEF variability. Results: In our study the shortened protocol was tested twice: eight subjects had a PD20 in both times; two reacted only once.

The final version was acceptable and easy to understand by Spanish oad. The adapted questionnaire (SGRQ) is a 5-item questionnaire developed by Bennett et al. (1991) covering three domains of health in airways disease patients: Symptoms, Activity, and Impacts.

For the adaptation, the forward and back translation method by bilinguals was used, together with panels of professionals and patients. After testing for feasibility and comprehension, the version was presented to 321 male COPD patients with a wide range of disease severity, to test its reliability and validity.

The final version was acceptable and easy to understand by Spanish patients. Cronbach's alpha reliability coefficient was 0.94 for the overall scale (0.72 for Symptoms, 0.89 for Activity, and 0.89 for Impacts). Correlation coefficients between the overall score and dyspnea, and FEV1 were 0.59 and 0.45, respectively. Dyspnea correlated highest with Activity and Impacts (r=0.57 and r=0.56, respectively; p<0.001), and correlation with Activity was highest for Activity (r=0.53; p<0.001). These correlations were higher than those observed among the clinical variables and the Nottingham Health Profile; a generic measure of health and health-related quality of life.

P0337
CROSS-SECTIONAL AND LONGITUDINAL MODELLING OF FEV1 AND FVC IN ADOLESCENTS
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