Letter to the Editor

Proposal to Adapt the WASP Programme to Fibre Counting Tests

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We welcome the opportunity to respond to the comments by B. Préat on our study involving the possible adaptation of the Workplace Analysis Scheme for Proficiency (WASP) Programme to fibre counting tests (Préat, 2006; Grzebyk et al., 2005).

(i) In Method 1, operator classification is based on the mean and coefficient of variation of standardized results (results obtained by operators divided by the corresponding reference value). Data presented in the paper show that 16 laboratories were classified in Group 3 for the years 2001–2003. Ninety-five percent were classified based on an excessively high variation coefficient, 37% based on a mean falling outside the established acceptance criteria and 32% based on both criteria. Therefore, it is incorrect to say that the criterion based on the coefficient of variation ‘does not play any significant role in the analysts’ world’.

(ii) It is well known that the membrane filter method, which allows the airborne fibre number concentration to be measured, is one of the less accurate analytical methods. Since its implementation in the 1960s, major efforts have been undertaken to clarify the testing procedure as much as possible. Clearance methods and counting rules have, therefore, evolved with time and the reticule has been standardized. These successive improvements have led to a fully stabilized method, which has been published by the World Health Organisation (WHO, 1997). As Rickards (1994) shows, these changes have had a major impact on measured concentrations and also probably on counting variability. There has been no major change over the last decade or so, allowing us to consider that the order of magnitude of the coefficient of variation of the method estimated at that time, remains realistic. On the other hand, counting variability can fluctuate, within certain limits, from one proficiency test to another, as documented in the paper published by Arroyo and Rojo (2001); cf. Table 3 and Figure 4. This may be owing to differences in the slides issued to participants (type of asbestos fibre present, sampling performed in the field or in the laboratory, assigned values determined for each slide or set of duplicates). This is why Arroyo and Rojo suggest harmonizing proficiency tests based on a fixed proportion of acceptable results rather than on identical acceptance limits.

Furthermore, it is also helpful to clarify that the coefficient ‘$a$’ quoted in the paper refers to the within-laboratory (or within-analyst when the counting is performed by the same analyst) dispersion and not to inter-analyst dispersion as stated by B. Préat. It also appears important to mention that the aim of the paper published by Jones et al. (2005) was not to determine a reference value for the within-laboratory coefficient of variation, which could be used by organizers of proficiency testing schemes. Even if this had been the case, the composition of the group of laboratories taking part in the study (four out of six laboratories are organizers of proficiency tests) would not have allowed conclusions applicable to a larger laboratory group of more diverse origin to have been drawn.

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