
TECHNICAL COMMITTEE REPORTS

Statistics Committee

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Committee Actions

The Committee was advised that the previously defined "Old Business" items that did not receive "Action Item" status during 2003 were as follows: (1) define alternative procedures to replace indefinite values that are reported as data values for statistical analysis and (2) develop procedure to validly compare reproducibility variances for 2 methods that have been studied in the same collaborative study. It was decided that these items should receive "Action Item" status for 2004.

The Committee was advised that the Chair (McClure) had undertaken that task "to develop statistical tests to compare methods with respect to salient method performance indicators (e.g., sensitivity, specificity, etc.) for qualitative collaborative studies." The results were reported to Committee H during the 117th AOAC Annual Meeting in Atlanta, GA.

The Committee was advised that McClure and Lee had undertaken the task of "assessing the validity of the Grubb's test that is used in the AOAC software to analyze collaborative studies" and are publishing a paper detailing the findings of the study in an upcoming issue of the *J. AOAC Int.*

The Committee was advised that Appendix D of the Study Director's Manual of AOAC incorrectly defines computation procedures for HORRAT values. McClure and Lee wrote a note, which is currently being published in the *J. AOAC Int.*, defining the correct calculations along with tables to make it easier to calculate HORRAT values.

The Chair was asked to make "Sample Size Determination for Allergen Screening Method Validation" an action item. The results of this study, by McClure, have been accepted for publication in *J. AOAC Int.*

The Committee was advised that Newell is studying the validity of using Cochran's test in screening outlying within-laboratory variances obtained under the Youden's closely matched pairs design. No fruitful progress was reported on this topic and it will remain in an ongoing status until further notice.

The Committee was advised that McClure and Lee have prepared a paper to include formulas that may be used to determine the uncertainty of the uncertainty statistics, obtained from collaborative study, that are used to characterize method performance. The paper was scheduled to enter AOAC's publication stream in June 2003, but the authors decided that the symbols that were used made reading too difficult. To date, no fruitful progress has been made in resolving the complexity of symbols issue and the task will remain in an ongoing status until further notice.

Attendance

Attending the meeting were the Chair (McClure), one Statistics Committee member (Wehling), 3 guests (Wood of the United Kingdom, Jonathan DeVries, president of AOAC, and Tholen) and one AOAC staff (Ladeji).

New Business

DeVries requested that the Committee revisit the AOAC requirement of Youden Matched Pairs. He thought that the 5% difference $[100(x-y)/x]$ in concentrations (x = highest and y = lowest) of the 2 materials making up the pair members of Youden matched pairs was too stringent. In addition, he felt that the requirement that the materials must comprise the same matrix was contrary to what Youden intended as a procedure. He felt that a procedure that incorporates the Horwitz equation for estimating the predicted relative standard deviation based on the analyte concentration should be used. The Chair informed DeVries of the current papers available on the subject and indicated that any peer-reviewed proposal supporting the requested changes would be given consideration as a policy proposal by the Committee.