

Third International Congress on Peer Review in Biomedical Publication: Highlights of the Prague Conference

Chair:

Annette Flanagin

Journal of the American Medical Association
Chicago, Illinois

Panelists:

Roy Pitkin

Obstetrics & Gynecology
Los Angeles, California

John Overbeke

Dutch Journal of Medicine
Amsterdam, the Netherlands

Fiona Godlee

British Medical Journal
London, England

Drummond Rennie

Journal of the American Medical Association
San Francisco, California

Reporter:

E Ann Donaldson

American Journal of Sports Medicine
Barboursville, Virginia

The Peer Review Congress has stimulated research into peer review and scientific publication, said Annette Flanagin in opening remarks. The first congress, which received 50 abstracts, formally launched the science of peer review. The third congress received 160 abstracts, many of which demonstrated improved research quality, including several randomized controlled trials. Three studies

from the third congress (18-20 September 1997) were presented during this session.

Can the Accuracy of Abstracts Be Improved by Specific Instructions?

Design: Roy Pitkin wanted to verify whether information in abstracts and research articles matched. Two inconsistencies regularly occur in manuscripts submitted to his journal: inaccurate data and data in abstracts but not in text. Pitkin's group hypothesized that fewer errors will occur if authors receive specific instructions for preparing abstracts. A form delineating the most common errors accompanied some of the manuscripts returned to authors for revision.

ANNUAL MEETING REPORTS

Results: Of 89 abstracts resubmitted by authors who received the instructions, 25 (28%) still had defects; of 114 abstracts returned by authors who did not receive instructions, 30 (26%) had defects. Types of defects found were inconsistencies (51%), information missing in text (29%), both inconsistencies and missing information (15%), and inaccurate conclusions (5%). Because the results were discouraging, Pitkin and colleagues decided to test abstracts in 4 other journals: 2 from similar societies and 2 high-impact weekly journals. Defective abstracts were found in all 4 journals: American Journal of Gynecology, 53%; Pediatrics, 65%; the Journal of the American Medical Association (JAMA), 50%; and the New England Journal of Medicine, 27%.

Conclusions: Inconsistencies between abstracts and text are relatively common. Specific instructions to authors are ineffective. Journals need a specific process to verify data in abstracts.

Research on Authorship

Design: John Overbeke and colleagues sent a 23-item questionnaire to authors of the 115 articles with 3 or more authors published in the Dutch Journal of Medicine in 1995. They asked whether authors were familiar with the Vancouver group (International Committee of Medical Journal Editors) authorship guidelines, whether those were followed, and how author order was decided. Of 450 questionnaires sent, 362

(80.4%) were returned, and 352 (78.2% of the total sent) were included in the study.

Results: More than 50% of authors were unfamiliar with the Vancouver group guidelines; but 63% fulfilled Vancouver authorship requirements, regardless of whether they knew about the Vancouver group guidelines. A wide array of methods were used for determining order of authorship; 8.5% of authors were “honorary”.

Conclusions: The Vancouver author guidelines were developed because editors had concerns about authorship. The consensus was that authorship is a serious issue that needs to be addressed, but the Vancouver guidelines are impractical. Overbeke recommended that the Vancouver group guidelines be made more practical and that ways to improve author familiarity with guidelines be explored. He also recommended that alternatives be discussed, such as Drummond Rennie’s proposal for a contributor system to replace the current author system.

The Effect of Blinding and Unmasking on the Quality of Peer Review

Background: Fiona Godlee said that peer review is considered biased by many and that the current system protects reviewers but not authors.

Design: To find better methods of peer review, 2 innovations were tested: Remove author identity from papers (blinding) and ask reviewers to sign their reviews (unmasking or open review). A manuscript from

the British Medical Journal was modified to introduce 8 errors into the paper. The modified manuscript was sent to 420 reviewers, divided into 5 groups. Of the 5, 4 groups were aware of the study on blinding—2 were asked to sign their reviews, and the other 2 did not sign their reviews—and the fifth group was unaware that they were participating in a study, and they completed regular reviews (author identity revealed, reviewers anonymous).

Results: The response rate was 53%. The mean number of errors found was 2; 16% of reviewers found no errors. There was no significant difference among the 5 groups. Reviewers of blinded-review papers were 5 times more likely to recommend rejection; unsigned reviews were twice as likely to be rude.

Conclusions: Blinding does not improve a reviewer’s ability to detect errors in a manuscript. This study highlights the importance of the editor in selecting the right reviewers.

Future Congress

Drummond Rennie announced that the Fourth International Congress on Peer Review would be held in Barcelona, Spain, in September 2001. He also told the group that JAMA would be publishing the results of the third congress in the 15 July 1998 issue. Results of the first two congresses were published in JAMA in 1990 and 1994. 