

## Editorial

# Infection Control and Hospital Epidemiology: the Formal Review Process

Robyn R. Hepker, MS

Since its inception, peer review has been the subject of rigorous debate in the scientific community.<sup>1</sup> Designed to ensure the validity and reliability of published research, the peer review process and its participants have been blamed for initially denying publication of manuscripts on topics varying from the first use of a smallpox vaccination<sup>1</sup> to in vitro fertilization.<sup>2,3</sup> Peer review has also come under fire for adding to the publication time of manuscripts, perpetuating invalid practices, and limiting the dissemination of new research.<sup>4-7</sup> However, a review of the literature would seem to indicate that, in this century, peer review can be credited with increasing the overall accuracy and reliability of medical articles, in addition to directing manuscripts to more appropriate journals.<sup>2,4,8,9</sup>

Roughly three-quarters of major scientific journals use some form of peer review<sup>10</sup>: "the assessment by experts (peers) of material submitted for publication in scientific and technical periodicals."<sup>9</sup> As each journal strives to establish its unique identity in the expanding milieu of scientific publications, the prospective author will almost surely be confronted with several variations on the peer reviewing theme.<sup>11,12</sup> This realization has led several journals, their sponsoring organizations, and many a disgruntled

author to call for disclosures of the process of peer review.

In 1975, the Scientific Information Committee of London's Royal Society published a set of eight guidelines (Table) for peer review.<sup>1</sup> Disagreeing with three of the guidelines (numbers two, four, and eight), the editors of *Nature* argued against the uniformity inherent in the Society's guidelines, and instead, urged publication by each journal of its review process.<sup>13</sup> This, the editors argued, would help prospective authors understand the process with which their manuscripts were being judged. The journal also proposed to update its procedure statement annually.

Several other scientific journals have made public their review methods. In 1975, the editors of *Science* stated that all manuscripts are sent to members of its Board of Reviewing Editors, who rate each manuscript on a scale from 1 to 10. On that basis, 60% of all manuscripts submitted are rejected outright.<sup>14</sup> The editors of *The New England Journal of Medicine* also penned a detailed description of its review process, stating that only 10% to 12% of all unsolicited manuscripts make their way onto the pages of its publication. The journal also outlined its procedures for accepting and rejecting solicited manuscripts

From *The University of Iowa Hospitals and Clinics, Iowa City, Iowa.*

Address reprint requests to Robyn R. Hepker, MS, C41 GH, University of Iowa Hospitals and Clinics, Iowa City, IA 52242.

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**TABLE**

ROYAL SOCIETY GUIDELINES FOR PEER REVIEW\*

1. Every paper submitted to the journal for publication should be refereed.
2. Referees are appointed by the Editor, and report to him.
3. The name of any Referee may only be disclosed to the Author by permission of or at the request of the Referee, with the Editor's agreement.
4. The Referee may not disclose the contents of a paper submitted to him, nor make use of these for his own scientific work before publication, without explicit permission of the Author, to whom the name of the Referee must then be disclosed.
5. The Referee's report should contain a definite recommendation concerning publication based upon a reasoned judgment of the general form and scientific contribution of the paper as a whole. He may recommend acceptance outright or subject to revision of certain sections along specified lines, or may propose that the paper be substantially rewritten to improve the presentation or to strengthen the scientific argument. The substance of all such critical comments should be communicated to the Author for action, to the eventual satisfaction of the Referee. But failure to accept the Referee's view on all minor points of criticism should not be a bar to publication.
6. No paper should be rejected on the adverse report of a single Referee.
7. In the case of conflicting opinions, the Editor may appoint further Referees or an Adjudicator who may read all communications between the Author and Referees whose names need not be disclosed to him).
8. A definite procedure should be established for Editorial decision with a stated period.

\* From reference 1, page 16

and correspondence.<sup>15</sup> Finally, in what appears to be a truly unique adaptation of the peer review system, *Current Anthropology* in 1982, described its peer review process in which 15 (down from 20) reviewers comment on each article received.<sup>16</sup> Arguments have been made, both for<sup>17</sup> and against<sup>18,19</sup> peer review, the scope of which would be hard-pressed to fit in the brief policy statement that follows.

It is, herein, our intent at *Infection Control and Hospital Epidemiology* to describe our peer review process so that prospective authors can gain some insight into the process they initiate with their submission.

Every unsolicited manuscript received is sent to at least two outside reviewers for comments and recommendations. The reviewers are chosen on the basis of their expertise; most come from the editorial or foreign advisory boards, although some are experts solicited outside of the board. All reviewers are contacted by telephone prior to being assigned a particular manuscript. This step helps to ensure that manuscripts will be reviewed by those with specific expertise and, importantly, the time to meet the specified deadline. The reviewers are not blinded to the identity and institution of the author(s) of manuscripts.

Manuscript reviewers generate two sets of comments: one set is specifically for the editors and it includes personal comments, a recommendation for or against publication and revision, and the reviewer's signature. The second set is

the reviewer's comments to the authors. Confidentiality of the reviewer is ensured; his or her name does not appear anywhere on the comments to the authors. Reviewers are specifically asked to refrain from making comments dealing with the appropriateness of publication to the authors, although they are free to do so in their comments to the editors.

A reviewer may make a request for a statistical review. These manuscripts are then sent to the Journal's statistical editor, who may assign them to other colleagues, at his preference. Statistical reviewers receive the same forms and instructions as other reviewers.

Once all reviews are returned, the manuscript and reviewers' comments to the editors and authors are given to the editor, who then makes a decision based on the reviews. Rarely will a manuscript be accepted for publication with no revisions requested. Indeed, in 1989, 22% of manuscripts submitted as original articles underwent minor revisions, 26% of manuscripts underwent major revisions and were sent back to the reviewers for re-review, and 52% of manuscripts submitted as original articles were either rejected outright or were rejected with an option for resubmission to another section of the Journal. Authors who take exception with the editor's decision and/or reviewers' comments are free to contact the editorial office and make a formal or informal appeal.

All solicited manuscripts are accepted. Manuscripts submitted for specific sections of the

Journal are reviewed by the section editor, who may request revisions before publication. Manuscripts submitted to "Readers' Forum" or "Special Commentary/Review" sections and solicited editorials are reviewed by the editor, who also may request revisions before publication. Submissions to the "Letters to the Editor" section are sent to an author for rebuttal and/or comment or a member of the editorial board for review and recommendations, when deemed appropriate.

The editor and editorial board invite your response to the journal's process of peer review.

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