

Effective Medical Writing

Pointers to getting your article published

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Role of the manuscript reviewer

ABSTRACT

The manuscript reviewer is a key player in the manuscript processing system and journal publication process. The peer review system is an important component of modern scientific publishing, and is a great help to editors in deciding whether or not a submitted manuscript is suitable for publication. The reviewer's responsibilities include protecting the integrity of his or her speciality or subspecialty, the reputation of the scientific journal, and the welfare of human and animal subjects, as well as treating the author's manuscript with respect, fairness and impartiality. The manuscript review should ideally be done in a systemic manner, with components comprising a brief summary and a tabulation of the manuscript analysis under the major headings of strengths, weaknesses, general comments and specific comments.

Keywords: manuscript processing, manuscript review, manuscript submission, medical writing, peer review, scientific paper

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INTRODUCTION

Journal reviewers, together with the authors and editorial board and staff, are important components of the manuscript processing system. Besides managing the editorial office and providing overall supervision of the entire manuscript processing system, another major role of the editor is to appoint and assign reviewers, and make the final editorial decision for each submitted manuscript. While the editor is heavily dependent on the reports of the expert reviewer, it should be emphasised that the reviewers' reports and confidential comments serve as guidelines for the editor and they alone do not dictate the editor's course of action. Editorial decisions are also based upon other considerations such as editorial

policy, opinions of other reviewers and editorial board members, the editor's own reading of the manuscript, the flow of manuscripts to the journal, and constraints imposed by the size of the journal. Most editors aim to publish a balanced selection of articles that fulfil the objectives of the journal and that will appeal to readers of the journal. These articles are ideally ones that are up-to-date, of high scientific quality, represent the leading edge of scientific progress, and be written in high-quality English.

To enhance the chances of getting his manuscript accepted, the author should aim to be familiar with the role of the reviewer and what he looks for upon receipt of a submitted manuscript. Knowledge about the review process is helpful prior to and during manuscript preparation. Thus, by understanding the reviewer's thought processes, knowing the components of a manuscript review and being aware of how the reviewer will assess the manuscript, the author may potentially prospectively identify and correct manuscript deficiencies prior to submission.

THE PEER REVIEW PROCESS

Peer review refers to the evaluation of a manuscript by peers of authors, i.e. typically doctors and/or scientists belonging in the same area of specialisation or subspecialisation. Peer reviewers aim to provide a critical, independent and unbiased assessment of submitted manuscripts, and are regarded as an important extension of the scientific process.⁽¹⁾ This process is an important component of modern scientific publishing, and is a great help to editors in deciding whether or not a submitted manuscript is suitable for publication in a particular journal. Peer review therefore aids journal editors in gatekeeping of what goes into the knowledge pool, and has been adopted by all major medical and scientific journals. Many variations of the peer review process exist among journals, and discussing these in detail is beyond the scope of this article.

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Box 1. Variations in the peer review process among journals:

- Online versus hardcopy review.
- Open versus single- or double-blinded review.
- Recommendation or blacklisting of reviewers by authors.
- Financial and other incentives for reviewers.
- Quality control of reviewers.
- Feedback process to reviewers regarding editorial decisions.
- Education and training of reviewers.

REVIEWER'S ROLE AND RESPONSIBILITIES

The reviewer should be an expert in his field and is required to render an unbiased opinion on the quality, timeliness and relevance of a submitted manuscript. He has a responsibility for protecting the integrity of his speciality or subspecialty, the reputation of the scientific journal he is reviewing for, and the welfare of human and animal subjects. The reviewer also aims to try to make a manuscript better, whether or not it will eventually be accepted for publication in a particular journal. The reviewer should ideally be blinded to the origin of the manuscript. If the reviewer recognises some aspect of the origin of the manuscript e.g. author, institution or country, or if there is any hint of potential conflict of interest, he should make this known to the editor. The editor should avoid selecting reviewers with obvious potential conflict of interest, e.g. those who work in the same department or institution as the author.⁽¹⁾

The reviewer has a responsibility to the author in treating each manuscript with respect, fairness and impartiality. He should always bear in mind that the submitted manuscript is an intellectual property belonging to the author, and should be regarded as a highly privileged piece of communication. The reviewer should refrain from publicly discussing the contents of the manuscript, and must not make use of knowledge of the author's work to further his own interests or for private gain. It is recommended that the reviewer should not keep any copy of the manuscript after completion of the review. In return, the reviewer should expect his own identity to be kept anonymous, particularly from the authors of the manuscript. Reviewer comments should not be published or publicised without the permission of the reviewer, author and editor.⁽¹⁾

Box 2. Responsibilities of the reviewer:

- To the editor and journal
- To his speciality or subspecialty
- To patients and study subjects
- To the author

COMPONENTS OF A REVIEW

The reviewer should be familiar with the Instructions to Authors, types of papers, style and standard of the journal he is reviewing for. Although every reviewer will have his own personal system when reviewing a manuscript, the following steps are suggested, as they cover the review process in a systemic fashion. The reviewer begins by initially scanning through the manuscript, in order to get a general feel and understanding of the message that the author is trying to convey. This is followed by several re-reads, after which the reviewer does a brief summary of the manuscript, and tabulates his analysis under the major headings of strengths, weaknesses, general comments and specific comments.

Box 3. Common major strengths of a manuscript:

- Findings are important.
- Topic is of current interest.
- Sound methodology.
- Control for bias.
- Appropriate subject population.
- Appropriate statistical methods and analysis.
- Practical value or innovative.

Box 4. Common major weaknesses of a manuscript:

- No or minimal importance.
- Flawed methodology.
- Biased subject population.
- Insufficient subjects.
- Missing inclusion and exclusion criteria.
- Wrong or inappropriate statistics used.
- Data does not support conclusions.

A brief summary is useful to the journal editor, as he is often not an expert in the topic described in the manuscript, and it concurrently also helps the reviewer distil the essence of the manuscript into a single paragraph. It usually suffices to list the top three strengths and weaknesses of the manuscript. General comments are made about the readability and overall clarity of the manuscript, its importance and relevance, and appropriateness for that particular journal's readership. The reviewer should comment on any substantially similar manuscript that he has identified in his own literature search – this will aid the editor in investigating for possible plagiarism or duplicate submission. The general comments can usually be listed in a single paragraph.

The reviewer then dissects the manuscript sequentially and systematically in a number of specific areas, giving more specific comments. These usually comprise the following headings: title, abstract, introduction, materials

and methods, results, discussion, references, tables, illustrations and legends. In making specific comments, the reviewer should list concerns or disagreements with statements made, and provide specific reasons for each point. Good reviewers will also be able to list important items that are missing in a manuscript, and point out any contradictions within a manuscript.

The ideal review should be objective, concise, constructive and courteous in tone. It should always offer suggestions for improvement. Reviews that are too short are not favoured by editors as they do not help the editor who may not be an expert in that particular field, and are often not helpful to the author as well. Selected segments of a reviewer's comments are also useful to the editor in providing justification should a "reject" decision be made on a manuscript. Rewards and recognition for reviewers include award of continuing medical education points, credit in staff performance appraisals, public acknowledgement in print by journals, award of certificates for high-quality reviews, and appointment to journal editorial boards.⁽²⁾

SUMMARY

Together with authors and editors, reviewers are key

players in the manuscript processing system and journal publication process. By understanding the peer review system, and role and responsibilities of the reviewer, authors can strive to prepare their manuscripts with no or minimal deficiencies, in order to ensure a successful outcome for all parties.

Box 5. Take home points:

1. Peer review is an essential component of the scientific process and medical publishing.
2. Manuscript reviewers have certain important responsibilities.
3. Manuscript reviews should aim at improving the manuscript and aid editorial decision.
4. It is very useful for authors to understand the peer review process and the role of the reviewer.

REFERENCES

1. International Committee of Medical Journal Editors. Uniform requirements for manuscripts submitted to biomedical journals. Updated October 2008. Available at: www.icjme.org. Accessed October 1, 2009.
2. Peh WCG. Reviewing for the Singapore Medical Journal [editorial]. Singapore Med J 2005; 46:1-3.

SINGAPORE MEDICAL COUNCIL CATEGORY 3B CME PROGRAMME
Multiple Choice Questions (Code SMJ 200910A)

| | True | False |
|--|--------------------------|--------------------------|
| Question 1. The editorial decision for a submitted manuscript is influenced by: | | |
| (a) The report of the manuscript reviewer/s. | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) The editor's own reading of the manuscript. | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) The flow of manuscripts to the journal. | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) The amount of advertising by a commercial firm. | <input type="checkbox"/> | <input type="checkbox"/> |
| Question 2. The following statements about the peer review process are true: | | |
| (a) It has been adopted by all major medical journals. | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) It helps the editor decide whether or not to accept a manuscript. | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) All journals have exactly the same peer review process. | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Some journals adopt an open peer review system. | <input type="checkbox"/> | <input type="checkbox"/> |
| Question 3. A manuscript reviewer has responsibilities to: | | |
| (a) The journal. | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) His specialty. | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) The author. | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) His political backer. | <input type="checkbox"/> | <input type="checkbox"/> |
| Question 4. The following statements are common major weaknesses of a manuscript: | | |
| (a) Flawed methodology. | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Missing inclusion and exclusion criteria. | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Data which does not support conclusions. | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Minor grammatical errors. | <input type="checkbox"/> | <input type="checkbox"/> |
| Question 5. The following are components of a manuscript review: | | |
| (a) Brief summary. | <input type="checkbox"/> | <input type="checkbox"/> |
| (b) Strengths of the manuscript. | <input type="checkbox"/> | <input type="checkbox"/> |
| (c) Specific comments. | <input type="checkbox"/> | <input type="checkbox"/> |
| (d) Multiple choice questions and answers. | <input type="checkbox"/> | <input type="checkbox"/> |

Doctor's particulars:

Name in full: _____

MCR number: _____ Specialty: _____

Email address: _____

SUBMISSION INSTRUCTIONS:(1) Log on at the SMJ website: <http://www.sma.org.sg/cme/smj> and select the appropriate set of questions. (2) Select your answers and provide your name, email address and MCR number. Click on "Submit answers" to submit.**RESULTS:**(1) Answers will be published in the SMJ December 2009 issue. (2) The MCR numbers of successful candidates will be posted online at www.sma.org.sg/cme/smj by 15 December 2009. (3) All online submissions will receive an automatic email acknowledgment. (4) Passing mark is 60%. No mark will be deducted for incorrect answers. (5) The SMJ editorial office will submit the list of successful candidates to the Singapore Medical Council.**Deadline for submission: (October 2009 SMJ 3B CME programme): 12 noon, 1 December 2009.**