

## Chapter-32

### How to do peer review of a manuscript?

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Whenever you get an invitation to review a manuscript from a journal, do not rush to accept it. Look at the subject and see if you have the requisite expertise in that field. If you think it is beyond your area of interest and expertise, do not feel shy and inform the editor immediately so that it can be sent to another reviewer.

If you are inclined to accept the invitation, look at the time required to do the review and if you think it won't be possible to review in the required time, ask the editor for more time and confirm the receipt of the manuscript and let them know the probable time by which you think you will be able to forward your comments. The next step will be to look at the journal, its contents, and format and carefully read instructions for authors on journal website. Your evaluation and comments should be in line with the journal instructions. Generally good reviewers may take two to three hours to review a manuscript but novice may require six to twelve hours hence it will take them much longer time.

As a reviewer, you are expected to grade the manuscript for its originality, quality, accuracy, readability and interest to the readers. Most of the journals do provide a detailed check list to the reviewers which you are supposed to fill in but do not hurry. First read the whole manuscript. Then follow the check list provided for the reviewers. Identify strength and weaknesses of the manuscript. Look at the ethical aspects, presentation

style and make sure whether the message has been conveyed properly to help the readers understand it.

***Structured Abstract:***

Most of the readers often read the abstract hence it is important that it must give complete information and those who are interested will later look at the full manuscript. Look if the authors have followed the journal pattern for structured abstract. Some of the important information it must contain include the following:

1. Objective of the study.
2. Where and when the study was conducted?
3. Methods section must give details how the study was conducted
4. Results section should contain important findings.
5. Make sure that the abstract provides answer to the question posed.
6. The abstract must provide complete information about the study in stand-alone position and tell the story.
7. Look at the number of patients included in the study, percentage, and it should tally with the number in the main text.
8. Make sure that the conclusion has the answer and it responds to the objective in the study.
9. In case of abbreviations, look if their details have been provided.
10. Key words selected should match with MeSH headings which helps in indexing.
11. Has the authors been careful as regards length, number of words in structured abstract which is usually about two hundred fifty words.

In case of special, brief communication, case report, instead of structured abstract, there should be brief summary with appropriate key words. In case of Review articles, the ICMJE recommendations state that the summary must include the names of different data bases searched along with the time period.

***Introduction:***

An original manuscript must have different sections as per IMRAD format in which:

- I stands for Introduction
- M stands for Methodology (material and methods, Subjects and Methods, Patients & Methods)
- R stands for Results
- A stands for Analysis
- D stands for Discussion

There is different information which has to be provided in these sections. None of these sections can be combined with the other, which is a common mistake by some authors. Introduction should include background information on the topic being studied, what is already known and what gaps remain. It must also state why there was a need for such a study and in the end, objective of the study should be restated. Sometimes the authors forget to restate the objective in Introduction, hence it has to be noted and included in the peer review report.

***Methods:***

This section must describe the methods in detail. Other information which should be looked in this section include design of the study, how groups were formed, randomization done, inclusion and exclusion criteria, name, dosage of the drug used, if some solution was used, how it was prepared should be given in detail. Did the authors took permission from the Ethics Committee of the hospital, institution where the study was performed or have got approval from the Institutional Review Board? How diagnosis was made and what criteria was used. For example if this is a study on hypertension or diabetes, how the patients were labeled as suffering from hypertension and diabetes? Look has the authors named the guidelines used for labelling patients as hypertensive i.e. Joint Committee Report or guidelines by International Society of Hypertension. In case of diabetes, whether the WHO definition was used or the one by International Diabetes Federation was used. Has the authors specified about this? Have the authors identified the software used for analysis of data. The reviewers must also look whether

the sample size was enough and how sample size was calculated? Have the authors provided information how the samples were collected, processed and stored.

### ***Results:***

While reviewing the manuscript, look at the results whether they have been presented appropriately. Is there enough data to support the results as they are supposed to provide an answer? Carefully look at the Tables and Illustrations. Are all of them necessary or their number can be reduced? Make sure there is no duplication of information provided in the tables and text. Are the illustrations clear enough and tables easy to understand to convey the message to the reader? Does the figures and tables have captions and headings?

### ***Discussion:***

This is perhaps the most important part in the original article. Look has the authors first identified their major findings in the study? Have they compared their data with other local, national, regional and international studies? If their findings are different from other studies, have the authors tried to find an answer to it why their findings are different? Has the authors highlighted what the study findings mean and what does it add to the medical literature? What is its clinical relevance and how it is going to affect or improve patient care in case of a clinical study? Have the authors included limitations of the study? Last paragraph in the discussion should have conclusions of the study. What is the pattern of the journal for which you are reviewing this manuscript? Do they require limitations of the study and conclusion as a separate sub heading in Discussion?

### ***References:***

There are no hard and fast rules for the number of references in a manuscript. Normally an original article is supposed to have maximum of twenty to twenty five references while for case report, brief, special communications five to ten references are considered adequate but for Reviews the number of references is usually quite large. Instructions for authors will guide you as to the maximum number of references needed for different

categories of manuscripts. However, make sure that the authors have provided at least one third of the references pertaining to the last five years. Website references should be avoided as far as possible. Similarly giving too many references from books is not encouraged either. Inclusion of reference to local studies is considered a plus point by most of the journals. Have a random check at the references whether they tally with the references at the end. Sometimes the authors give a reference and at the end it is written “*In Press*”. Such references should be avoided or the authors should give name of the journal where the manuscript has been accepted for publication. Mere submission does not qualify to be used as a Reference.

### ***Writing a Report:***

Ideally while writing the report, summarize the whole manuscript in one para. Ensure constructive criticism. Do not take revenge from the authors. As an ideal reviewer, you should concentrate on the manuscript rather than the author. Do point out if you have some conflict of interest. While reviewing the manuscript, if you have received some help and assistance from others, do mention it. You should be mindful of your deficiencies. You do not have to comment on each and everything in the manuscript as there may be certain areas which are beyond your expertise. Do point it out in your report which will help the editor to take help from other reviewers.

Mention source of your comments to strengthen your arguments and provide relevant references to studies which will help the authors. Different journals have different peer review system. Some use single blind while most use double blind in which neither the author nor the reviewer’s identity is disclosed. However, now many leading journals of the world use Open Peer Review System as it helps improve the quality of Reviews. We also use Open Peer Review system in Pakistan Journal of Medical Sciences. In Open Peer Review system the name of the author and the reviewers are disclosed. Hence, in case you wish that your identity should not be disclosed in an open peer review system, inform the journal editor accordingly. You may also decide not to sign such reports and convey your comments. As a

reviewer you are expected to keep the manuscripts sent to you for review confidential hence give it due importance. It is quite likely that the journal will send you the comments on the same manuscript by other reviewers which will enable you to assess your own performance.

A large number of journals from overseas and quite a few published from Pakistan are using the Manuscript Management System for review. If you receive the manuscript through such a system you can just tick “Yes” or “No” and respond to various questions asked about the study and return it to the editor. Reviewers also prefer it because it is time saving, quick and much easier. If you intend to use this, you can always send additional comments to the authors and the editor if you wish. In case you wish to use the Reviewers Performance sent by the Journal along with the manuscript, you can use that and add additional comments if need be both for the Editor as well as the authors. Reviewers who are more computer literate and well versed with information technology and keep themselves update, prefer reviewing the manuscripts using track changes. In case you wish to use this, then make sure you use different colour for corrections and points, comments you wish the authors to respond while revising the manuscript. While submitting the review, give them instructions as to which colour matter they need to add after accepting all the track changes, which should be deleted and which colour comments the authors should respond to. These detailed instructions will also help the Editors when they review the revised manuscript. The authors are also supposed to submit a detailed point by point response to the comments and suggestions by the Reviewers along with the revised manuscript. The editors will then send the reviewers revised manuscript along with the author’s response which should help them in quick re-review of the manuscript. In some cases the editors may do this job and do not re-send you the manuscript for re-review if they are convinced that the authors have satisfactorily responded to the comments and suggestions in the revised manuscript. As such while reviewing the manuscript, you can select and chose any of the above systems with which you feel comfortable.

Remember it is much easier to criticize but extremely difficult to do something, hence refrain from undue criticism. Use polite language and your review should help the authors to revise and improve it while helping editors to take a decision. While re-reviewing a revised manuscript, make sure you are consistent with your earlier review and refrain from pointing out any new deficiencies unless they are extremely important. If you do point them out, do not hesitate to state that these were overlooked by you during the earlier review.

### FURTHER READINGS

1. Spigt M, Arts ICW. How to review a manuscript. *J Clin Epidemiology*. 2010;63:1385-1390.
2. Annesley TM. Now You Be the Judge. *Guide to Manuscript Review. Clinical Chemistry*. 2012;58(11):1520-1526.
3. Seals DR, Tanaka H. Manuscript Peer Review: a helpful checklist for students and novice referees. *Adv Physiol Educ*. 2000;23:52-58.
4. Moher D, Jadad AR. How to do Peer Review. In “Peer Review in Health Sciences” Edited by Fiona Godlee and Tom Jefferson. *BMJ Books, BMJ Publishing Group. London*. 1999.
5. Annesley TM. Writing an Effective Manuscript Review: The 6 “Be’s” to Success. *Guide to Manuscript Review. Clinical Chemistry*. 2013;59(7):1028-1035.

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