Performing Peer-Review of Manuscripts and Responding to Them

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Overview

- Roles, outcomes, and effectiveness of peer-review
- Principles, nuts, and bolts of performing a review
- Revising manuscripts in response to editor and peer-reviewer comments
Definition

• **Peer-review** – the evaluation of scientific work by experts in the same field in order to enhance the quality of scholarship in the field

http://www.linfo.org/peer_review.html
## Roles of Journals and the Peer-Review Process in the Medical Sciences

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<th>Roles</th>
<th>Journals</th>
<th>Peer-Review</th>
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<td>Build collective knowledge</td>
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<td>Validate quality of research</td>
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<td>Distribute rewards</td>
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<td>Communicate information</td>
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<td>Build scientific communities</td>
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Assumed Outcomes of the Peer-Review Process

- Determines the validity of research
- Improves the quality of scientific manuscripts
- Ensures adherence to the norms in a field
Are These Outcomes Proven?

- In a systematic literature review, Jefferson et al. found little scientifically sound evidence linking peer-review to increased manuscript quality in the biomedical sciences.

- In an empiric study of the peer-review process, Baxt et al. showed that only 34% of 214 peer-reviewers identified a fatal flaw in an article and 43% of these reviewers recommended acceptance.
Should Peer-Review be Abandoned?

- Peer-review is like the U.S. judicial jury system
- While flawed, it is the best system we have
Principles for Peer-Reviewing a Manuscript - I

1. Review only if you can be objective
2. Review only if you can be on time
3. Understand role (assess rigor, originality, clarity)
4. Recognize both merits and faults
5. Be critical, but constructive
Principles for Peer-Reviewing a Manuscript - II

6. Be judicious in suggesting additional work
7. Leave it to future generations to determine impact
8. Be a champion for your field
9. Remember it is not your paper (author has final say)
10. Be a good role model for mentees

Nuts and Bolts of Performing a Peer-Review - I

• Read carefully entire manuscript, tables and figures
• Create detailed comments and edits in margins and throughout text
• Identify major methodologic issues and/or fatal design flaws
• Assess newness or originality of work and potential impact on clinical practice or policy
Nuts and Bolts of Performing a Peer-Review - II

• Decide if all article parts serve their function and are organized appropriately (minor issues)

• Determine appropriate article disposition (i.e., accept with minor revisions, accept with major revisions, reject, etc.)

• Complete reviewer’s check-list for the editors
Organizing the Review – I

- Begin by summarizing the goals and key findings of the study
- Present major strength(s) and potential impact of the article on clinical practice and policy
- Summarize major issues and/or design flaws with constructive recommendations for correction, if possible
- Summarize minor points sequentially, from title page through tables and figures, listing page, paragraph number and line for each comment
Organizing the Review – II

- Add paragraph to the confidential comments to the editors on your recommendation for article disposition and the rationale for your decision
- Appropriate length – 2-5 pages, single-spaced
Revising Papers for Publication Based on the Editorial and Peer-Review Process
Editors’ Decisions for Papers

- Reject, without invitation to resubmit (50-75%)
- Reject, with invitation to resubmit with major or minor revisions (10-25%)
- Accept, with major or minor revisions (10-25%)
- Accept, without revisions (3%)
Why Are Papers Rejected?

• Does not add to the literature
• Has major methodological flaws
• Does not address an important question
• So poorly presented that quality and importance cannot be assessed
• Poor timing
Revising Papers for Publication

• Is a rejection ever worth fighting?
• What to do following a rejection?
• How to handle a revise and resubmit?
Fighting a Rejection

• Usually not a productive venture
• When might it be productive?
  ➢ “unfair” or “biased” review
  ➢ review or editor is “wrong”
• Talk to editor for guidance – sometimes the squeaky wheel does get the grease
Steps Following a Rejection

• How to use the review(s) to strengthen the paper and increase the chances of acceptance?

Option 1 → Quickly fix any typos or obvious mistakes, reformat, and resubmit

Option 2 → Selectively address comments that will make the paper better, including expanded analyses when indicated, reformat, and resubmit

Option 3 → Address each and every editor and reviewer comment in writing, revise paper accordingly, reformat, and resubmit
Steps Following a Revise and Resubmit

• Carefully and dispassionately address each reviewer and editor comment
  ➢ Follow reviewer recommendation(s)
  ➢ Respectfully disagree and make your argument(s)
  ➢ Provide data or analyses to support argument(s)

• Describe how and where paper was revised in response to each comment

• Acknowledge benefits of the peer-review process
Questions?