Navigating the Peer Review & Manuscript Process

Guidance from

Journal of the American Pharmacists Association (APhA)
American Journal of Pharmaceutical Education (AJPE)
Annals of Pharmacotherapy

Presenters

• Gayle A. Brazeau
  o Associate Editor – AJPE
• Jeanine P. Abrons
  o Associate Editor – JAPhA
• Milap C. Nahata
  o Editor – Annals of Pharmacotherapy
Overview of Presentation

- Connection Between Effective Reviewer & Author
- Becoming a Peer Reviewer
  - Connection to Becoming an Effective Author
- Specific Considerations
  - Formatting
  - Specific to Journal
  - Final recommendation
- Ethics in Editing & Writing

Becoming an Effective Reviewer / Author

- Are very similar concepts
- To become an effective publisher...
  - Think like a reviewer.

Guidance & Considerations in the Peer Review Process

Being an effective reviewer
Reasons to Become a Peer Reviewer

• Professional responsibility
  – Literature quality

• Enhance your professional reputation & development of an expertise area
  – Keep track for annual review

• Enhance your own scholarship
  – Stay up-to-date

• Mentor junior colleagues, residents & student pharmacists

Continuing to Peer Review

• Tips to improve efficiency & effectiveness
  – Specific components that are helpful

• Re-engage
  – Up-to-date contact information
  – Up-to-date expertise

Peer Reviewer Considerations in Acceptance of Responsibility

• Expertise area
  – Does this manuscript fit your expertise area?
  – If not, what can you contribute to the review?
  • Comment to editors on areas unable to contribute on

• Conflicts of interest
  – More in ethics section

• Time frame to review
  – Can you reasonably fulfill & not delay review process
  – Responding to requests in a timely manner
Sample Method of Review

- Read the manuscript multiple times with different perspectives:
  - Journal specific
  - Contribution to literature
  - Clarity of presentation
  - Scientific merit (Quality)
  - Ethics

Review Etiquette: Do’s and Do Not’s

- Appropriate to conduct a team review
- Not appropriate to discuss in general your role with others outside of the review process

Review Components: Journal Specific & Clarity

- Journal Specific:
  - Correct journal
  - Correct section
  - Within word count
  - Fit with formatting requirements
- Clarity
  - Is the contribution to the scientific literature clear?
  - Is the paper well organized to aid in understanding the contribution?
General Review Comments

• Be systematic & descriptive
  – Thoroughly & with constructive feedback provide:
    • Concerns with presentation of information
    • Recommendations for improvement
    • Alternative viewpoints / arguments

Technique Tips: General Review

• Organize critique to ensure your message is heard
  – Review template as an example
  – Typing review in word

• Provide specifics
  – Pages; Numbers; Lines; Examples

• Discuss point-by-point

• Look for pearls or gems

• Differentiate between stylistic concerns & fatal flaws

Sample Areas of Critique & Aspects

<table>
<thead>
<tr>
<th>Area of Critique</th>
<th>Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Specificity</td>
</tr>
<tr>
<td></td>
<td>Reflection of focus of article / important aspects</td>
</tr>
<tr>
<td>Abstract</td>
<td>Adequacy in summarizing the article</td>
</tr>
<tr>
<td></td>
<td>• Issue addressed</td>
</tr>
<tr>
<td></td>
<td>• Method of study</td>
</tr>
<tr>
<td></td>
<td>• Findings</td>
</tr>
<tr>
<td></td>
<td>• Implications</td>
</tr>
<tr>
<td>Introduction</td>
<td>Context / research motivation provided</td>
</tr>
<tr>
<td></td>
<td>• Thoroughness of summary of previous research</td>
</tr>
<tr>
<td></td>
<td>• Summary of areas of need; limitations in previous literature</td>
</tr>
<tr>
<td>Objectives</td>
<td>Logical based on the literature review</td>
</tr>
<tr>
<td></td>
<td>• Reflective of study outcomes</td>
</tr>
<tr>
<td></td>
<td>• Clearly articulate the “hypothesis”</td>
</tr>
</tbody>
</table>
Sample Thought Questions

<table>
<thead>
<tr>
<th>Area of Critique</th>
<th>Thought Question</th>
</tr>
</thead>
</table>
| Methods          | - Clarity in description of study setting / study population
|                  | - Logical / provided inclusion / exclusion criteria
|                  | - Design appropriate to answer study question
|                  | - Sources of potential bias recognized
|                  | - Strength of study design
|                  | - Ability to replicate based on specifics provided
|                  | - Thoroughness of data / data collection description

<table>
<thead>
<tr>
<th>Data / Data Collection Place</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>What?</td>
<td>Survey; diagnosis; etc.</td>
</tr>
<tr>
<td>Where?</td>
<td>Practice setting; Practice type; Geographic location</td>
</tr>
<tr>
<td>When?</td>
<td>Timeframe of study (month / year); Prospective vs. retrospective</td>
</tr>
<tr>
<td>How?</td>
<td>Self-report; Trained interview / intervention; Study investigators (Faculty; students; Abstractors)</td>
</tr>
</tbody>
</table>

Methods Considerations (Continued)

• Variables
  – Dependent variables
  – Independent variables
    • Ability to properly analyze
  – Confounding variables
  – Identification source
    • Theory
    • Reliability
    • Validity
  – Operationalization

Methods Considerations (Continued)

• Statistics
  – Appropriateness of test
  – Appropriate level of error
  – Sufficient sample size to provide
    • Sufficient power
  – Survey based
    • Comparison of non-respondents / respondents
Sample Areas of Critique & Aspects

<table>
<thead>
<tr>
<th>Area of Critique</th>
<th>Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results</td>
<td>• Meaningful presentation</td>
</tr>
<tr>
<td></td>
<td>• Redundancy (E.g. text and table)</td>
</tr>
<tr>
<td></td>
<td>• Appropriate statistical information provided (test value; variability; p-value)</td>
</tr>
<tr>
<td></td>
<td>• Omissions in data / results to measure variables &amp; answer research question</td>
</tr>
<tr>
<td>Discussion &amp; Conclusions</td>
<td>• Does the discussion tie back to the objectives?</td>
</tr>
<tr>
<td></td>
<td>• Does the discussion reflect &amp; link back to the literature review?</td>
</tr>
<tr>
<td></td>
<td>• Is the clinical versus statistical significance discussed (e.g. practice implications)</td>
</tr>
<tr>
<td></td>
<td>• Citing of limitations (E.g. generalizability)</td>
</tr>
<tr>
<td></td>
<td>• Are conclusions &amp; recommendations reasonable</td>
</tr>
<tr>
<td>References</td>
<td>• Appropriate</td>
</tr>
<tr>
<td></td>
<td>• Recent enough</td>
</tr>
<tr>
<td></td>
<td>• Correctly formatted</td>
</tr>
<tr>
<td></td>
<td>• Accurate</td>
</tr>
</tbody>
</table>

Summary of Critique Aspects

• **Scope:**
  – Does the manuscript fit the journal that you are submitting to?

• **So What:**
  – Is there a meaningful contribution to advance practice or education?
  – Does the article add to the current literature base?
  – Can others use this work in practice or education?

• **Scientific Merit:**

Specific Considerations: Tips in Manuscript Preparation

Formatting of Tables & Figures

Gayle A. Brazeau

Associate Editor – AJPE
Suggestions for Tables / Figures

• Well organized
• Adds to information presented in the body of the text
• Stands alone
• Focuses on key points of the manuscript

See handout for more guidance

Suggestions for Tables / Figures

• Common aggravations about tables / figures
  – Too many
  – Too long (correlation tables)
  – Too simple
  – Can’t read the figure legends or differentiate treatments
    • Does not stand alone

See handout for more guidance

Navigating the Manuscript and Publication Ethics

Milap C. Nahata, Editor
Annals of Pharmacotherapy
Research Integrity (ORI, NIH)

• Use of honest and verifiable methods in proposing, performing and evaluating research
• Reporting research results with particular attention to adherence to rules, regulations, and guidelines
• Following commonly accepted professional codes or norms

What May Be at Stake?

• Distorts the scientific record
• Obscures the truth
• Influences clinical decisions
• Can cause harm
• Can mislead guidelines or policies
• Can be costly
• Can compromise public trust

Who Is Responsible?

• Researchers
• Authors
• Sponsors
• Ghostwriters
• Peer reviewers
• Editors and staff
• Publishers
Research Training Program

- Conflict of interest
- Responsible authority
- Policies for handling misconduct, data management and data sharing
- Use of human and animal subjects
- Required by NIH

Conflicts of Interest (ICMJE)

- Authors, referees, editors with financial or personal relationships
- Financial: employment, consultancy, honoraria, stock ownership, other payment
- Disclosures and decisions critical

Authorship Criteria

- Based on project conception/design, collection, analysis and/or interpretation of data plus
- Drafting article or revising it plus
- Approval of the article
- Focus on fairness, not politics/gifts
Authorship Decisions

• Decide during planning phase
• Determine order of authorship (first author, corresponding author, coauthor)
• Communicate with coauthors at all stages during the process
• Disclose conflicts of interest

What Percentage of Authors of Clinical Practice Guidelines Had a Relationship With the Pharmaceutical Industry? (JAMA 2002:287:612-7)

• 10%
• 20%
• 40%
• 60%
• 80%

“Must Not Do”

• Simultaneous submission to >1 journal
• “Salami science” or duplicate submission
• Plagiarism, fabrication, fraud
• Hide data or previous article
• Not disclosing COI, “Ghost Writing”
• Publication bias
Retractions of Published Articles:
22 in 2001 vs. 339 in 2010
(CNN Health, August 12, 2011)

<table>
<thead>
<tr>
<th>Category</th>
<th>2001</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misconduct</td>
<td>50%</td>
<td>0%</td>
</tr>
<tr>
<td>Errors</td>
<td>30%</td>
<td>10%</td>
</tr>
<tr>
<td>Irreproducible</td>
<td>20%</td>
<td>50%</td>
</tr>
<tr>
<td>Unclassified</td>
<td>10%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Publication Bias

- Publication of results depending on their nature and direction (bias for positive or negative results)
- Publication of selected data (Hypothesizing After the Results are Known—HARKing)

Types of Publication Bias

- Content bias
- Citation bias
- Language bias
- Location bias
- Reference bias
- Multiple publication bias
Content Bias (BMJ 2001;323:42-46)
- Selection bias (allocation of groups)
- Performance bias (provision of care)
- Detection bias (assessment of primary or secondary outcomes)
- Attrition bias (deviation from protocol or follow up plan)

What Is The Evidence?
- Positive studies or trials 2-3 times more likely to be published after a shorter period 4.7 vs. 8 years (BMJ 1997)
- Industry research less likely to be published, more likely positive, with inappropriate comparators (BMJ 2003)
- Numerous papers in JAMA & NEJM

Registration of Clinical Trials (JAMA 2009;302:977)
- In 2005, medical journals developed policy for registration of clinical trials before start (ClinicalTrials.gov)
- 323 published trials examined
- 27% not registered; primary outcome differed in some
- Still "work in progress"
Section Summary

• Publication ethics essential for progress
• Ethical issues may originate from multiple sources
• Poor adherence to ethical principles may have adverse impact
• Process for detecting and addressing ethical issues must exist

Specific Considerations: Recommendations

Journal Specifics

Journal Specific Handout

• Focus of peer reviewed journal
• Manuscript type
• Basic overview of the peer review process
• Considerations
JAPhA

- Highlights of supplemental document provided
  - Initial screen / partial open peer review process
  - Decision notification
  - Manuscript system
  - Brief overview of decision types

AJPE

- Highlight of supplemental documents provided
  - Overview of Instructions for reviewers:
    - Based on http://www.ajpe.org/page/reviewer-instructions (Accessed May 2013)
  - Manuscript system
  - IDEAS format

Annals of Pharmacotherapy

- Peer reviewed journal that advances pharmacotherapy with evidence-based articles on practice and research

- Discussion and analysis of professional issues in pharmacotherapy also considered
Acceptance Criteria

- Impact on patient care
- Contribution to knowledge
- Relevance to readers
- Sound methods to address objectives
- Compliance with requirements
- Completeness and consistency of data
- Conclusion supported by data

Interested in More on Fundamental Concepts in Reviewing Manuscripts…

- For more helpful suggestions, refer to:
  - “Your Role and Responsibilities in the Manuscript Peer Review Process”
    - Gayle A. Brazeau, Joseph T. DiPiro, Jack E. Fincham, Bradley A. Boucher, and Timothy S. Tracy
    - AJPE 72(3), Article 69, 2008

Final Recommendation

- Is a recommendation to the editor on what should happen next
  - One of several to form ultimate manuscript decision
  - Differentiate between confidential / non-confidential comments
  - Supported by your specific areas of critique
Summary of Presentation
• Reviewing & editing are tied concepts
  – To be a good author – become an honest & critical reviewer of your own work prior to submission
  – To be a good reviewer - be specific & constructive
  – Be ethical
  – Know the specific journals

References
• AJPE Reviewer Instructions: http://www.ajpe.org/page/reviewer-instructions (Accessed May 2013)
• JAPhA Manuscript Central: http://mc.manuscriptcentral.com/apha (Accessed May 2013)

What questions do you have?
References


Ethics References

• Uniform Requirements...Writing and Editing
  www.icmje.org (Accessed June 2013)
• WAME Ethics Policies www.wame.org
  (Accessed June 2013)
• Nahata MC. Tips for writing and publishing an article. Ann Pharmacotherapy 2008;42:272-7