

THE JOURNAL of UROLOGY®

A Step-by-Step Guide to Peer Review for *The Journal of Urology*®

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Thank you for participating as a peer reviewer for *The Journal of Urology*® (JU). Your contributions are invaluable and will provide you with numerous benefits as you continue to grow your career.

Why Review?

Peer reviewers cite the following as reasons why they review for JU.

Contribution to Scientific Discovery: Peer reviewers play a crucial role in maintaining the quality and credibility of scientific literature. Your reviews help ensure that accurate and valuable research is disseminated to the scientific community and the public. They also ensure that *The Journal of Urology*® remains a preeminent journal in the field.

Continuing Education and Professional Development: Reviewing manuscripts allows you to stay current with the latest trends in urology as well as the foundations they build upon. It enhances your fund of knowledge, critical thinking, and analytical and communication skills.

Networking: Peer review often involves collaboration with editors and fellow reviewers. It can help you build relationships with experts in your field, potentially leading to research collaborations or invitations to write editorials and join editorial boards.

Recognition and Visibility: Serving as a peer reviewer is a form of professional service that can enhance your reputation within the scientific community. *The Journal of Urology*® recognizes a Reviewer of the Month and provides awards to top reviewers at the AUA Annual Meeting. As part of our commitment to open peer review, *The Journal of Urology*® also publishes reviewer names with manuscripts published in The Journal, which helps establish reviewers as experts on the topic.

Access to Cutting-Edge Research: Reviewing manuscripts provides early access to unpublished research findings, allowing you to stay ahead of developments in your field and potentially inspiring your own research interests.

How to Use This Guide and Other JU Resources:

As you start reviewing research for publication, the following guide can be used to help focus your review and ensure that it provides high-quality feedback to the editorial staff and to the authors. For some background on peer review, you can also watch JU's "Primer on Peer Review," a series of interviews for junior peer reviewers (<https://auanews.net/educational-opportunities/editorial-resources/peer-review-tutorials>). While this guide outlines an example method for reviewing an article, we strongly recommend that you develop your own review method based on this guide, other published guides, and your own experience. There are many ways to review, and your style will emerge and evolve as you review more and more manuscripts.

Reviewing an Article:

1. The First Read-Through

The first step for many reviewers is to perform a complete, first-time read through the article. This first evaluation should give you a general understanding of what the article is about and allow you to develop a first impression. We recommend keeping a pen and paper, or note-taking software, handy at this point to jot down brief notes. Critical for early reviewers is to consider whether you need to do some background reading on the topic before getting too deep into your review process. Other considerations include:

- a. What is the main question addressed by this paper? What are the authors' hypotheses?
- b. Is the paper well written? Is it free of significant grammatical errors?
- c. What are the conclusions, and do they align with the initial question posed and scope of the data?
- d. Is the article novel, original, or practice-changing? Does the article refute currently available data on the topic, or does it confirm prior findings?
- e. What is the study design? Is this design appropriate to answer the posed questions?
- f. Conflicts of interest: Assess whether you have any conflicts of interest that might impair your impartiality. Disclose conflicts to the editor if necessary.
- g. Suitability for *The Journal of Urology*[®]: Consider whether this manuscript aligns with the aims and scope of *The Journal of Urology*[®] (<https://www.auajournals.org/aims>).

2. Take Time Away From the Article

Most reviewers find it helpful to put the manuscript down after their first review to give them time to digest and consider the paper globally. Reviewers often report that this time and space, even when not dedicated to thinking about a review, often allow for a deeper consideration of the article and a better review later on.

3. Reviewing the Methods

Consider focusing your in-depth review of the manuscript on the methods section first. You will be assessing the methodological rigor and statistical analysis in the presented article. Things to consider to focus your review include:

- a. **Study Design:** Examine the study design to ensure it is appropriate for addressing the research question. Is it a randomized controlled trial, observational study, case-control study, or another type? Consider whether the design aligns with the research objectives. Is this the way you would have done it? Why or why not?
- b. **Sample Size and Power Analysis:** Consider if the sample size is adequate for the study's objectives. Assess whether a power analysis was conducted to justify the sample size. Inadequate sample sizes can lead to underpowered studies with inconclusive results.
- c. **Data Collection:** Evaluate how data were collected. Were standardized methods used? Were these methods clearly reported? Were any biases in data collection minimized or addressed? Check if the instruments or tools used are validated and appropriate for the study population.
- d. **Bias and Confounding:** Assess the steps taken to minimize bias and confounding factors. Look for strategies such as randomization, blinding, and matching. Consider whether potential confounders were controlled for in the analysis.
- e. **Follow Ethical Guidelines:** Ensure that the study adheres to ethical guidelines for research involving human subjects or animals. Have the authors provided a statement about informed consent and approval from an institutional review board?
- f. **Evaluate the Statistical Analysis:** We **strongly** recommend that you review *The Journal of Urology*[®] “Guidelines for Reporting of Statistics for Clinical Research in Urology” (<https://www.auajournals.org/doi/10.1097/JU.0000000000000001>). You should consider if the statistical methods used in the article require additional review from a trained biostatistician and be clear about the need for further statistical review.
- g. **Data Presentation:** Examine the tables and figures. Ensure that the data are clear and that the choice of visual representation is appropriate.

- h. **Statistical Tests:** Evaluate the statistical tests used. Verify that the statistical methods are suitable for the data type (eg, parametric vs nonparametric) and the research question.
- i. **Interpretation of Results:** Assess the interpretation of statistical results. Do the authors correctly interpret *P* values, effect sizes, and confidence intervals? Ensure that both the *clinical significance* and statistical significance of the findings are discussed.
- j. **Reproducibility:** Consider whether the authors have provided sufficient information to allow for the replication of the study.
- k. **Sensitivity Analysis:** Consider whether a sensitivity analysis was performed to assess the robustness of the findings. This can involve testing different assumptions or statistical models.

4. Reviewing the Results

The results section of any manuscript should provide an in-depth description of what the data and analysis showed. Authors should make references to tests of statistical significance. Consider again if the data presented and referenced in tables and figures are presented in the ideal/appropriate format. The results section should not include references to other literature, further description of methods, contextualization of the findings, or commentary editorializing.

5. Reviewing the Introduction

The introduction of a manuscript should introduce the current state of the literature and explain a gap in knowledge that the authors hope to answer or explore. It should then go on to outline what hypothesis the authors aim to address with their research. While there are many ways to structure an introduction, it must contain these two elements. Further, it should not include any discussion of the results or conclusions of the manuscript.

6. Reviewing the Discussion

A good discussion highlights the important aspects of the results section and then contextualizes them for the reader within the already published literature on the topic. It should also help the reader understand how the results of the manuscript being considered change the overall state of the topic being discussed including how the results do or do not change practice. Finally, the discussion should consider limitations of the entire manuscript to ensure that the authors do not overstate their conclusions.

7. Making Your Recommendation

You will ultimately make a final recommendation to the editorial team for a decision on the article:

- a. *Accept without revision*—This is rarely used for articles that are appropriate for publication without revision.
- b. *Minor revision*—Select this option if the article is nearly ready for publication, but with small changes. The reviewer should clearly delineate what changes are essential prior to publication and what changes are suggested, but are not required, if any, to allow editors and authors to prioritize changes to be made. Minor revisions may include:
 - i. Language editing, grammatical or typographic error correction
 - ii. New citations
 - iii. Small tweaks to interpretation of existing results or data
 - iv. Addition of small new experiments or analysis without major changes to existing results
- c. *Major revision*—Select this option if the article should be published in principle, but large changes are needed prior to publication. Some potential major revisions include:
 - i. Major structural issues requiring reorganization of the text
 - ii. Significant new or additional experiments requiring new data collection and/or analysis
 - iii. Major statistical overhaul or revision of flawed analysis
- d. *Reject*—Select this option if you feel that the article should not be published in *The Journal of Urology*®. Reasons to select this option may include:
 - i. Fatal study design flaws or biases which cannot be overcome
 - ii. Research is outside of the scope of The Journal
 - iii. Failure to meet minimum standards/requirements of The Journal or ethical issues

Consider as you make your recommendation that authors have often spent months, or even years, performing experiments, collecting data, and writing the manuscript that you are reviewing, and recognize the potential financial, logistical, and methodologic limitations that the authors are faced with when making major revision recommendations.

8. Post-Review Assessment

After you have completed your review and the final decision is returned by the editor, you have a chance to go back and see what other reviewers said about the article. This is a chance for self-reflection and improvement:

- a. Review the Editor's Decision—Did your recommendation align with the final decision?

- b. Reflect on Your Review—Revisit your original review to refresh your memory. Consider whether your feedback was clear, constructive, and aligned with the editor's decision.
- c. Compare Your Review With Others—Compare your feedback with that of your peers. Look for common themes or areas of agreement and disagreement. This is an opportunity to see how other reviewers style their commentary and review—you will find things that you want to add to your repertoire and, perhaps more importantly, you will identify things to avoid by reading poor-quality reviews.
- d. Seek Feedback—As a junior member of the review team, we recommend that you seek feedback from a trusted mentor or from the editorial staff at *The Journal of Urology*[®] to help identify ways to improve your reviews.

Tips for a Polished Review:

Be a Collaborator, Not a Judge: One temptation for first-time reviewers is to see the job as merely deciding “yes” or “no” on an article and then writing a review to back up their decision. While a decision on a review is part of the job, it’s not the whole job because most papers are not ready for publication when submitted for the first time. They need to be refined and revised, and journal reviewers are an essential part of that process. We challenge you, the reviewer, not only to make a decision, but also to enter into a collaboration with the authors. Try to suggest improvements for their work and contribute to the polishing of the paper, even if it will end up in another journal.

Run Your Review by Others: Just like you wouldn't submit a paper without review by your peers and mentors, don't do that with your review. As you begin to develop your point of view and find your voice as a reviewer, get some input from those you trust. It will help you become a more polished reviewer faster.

Focus Your Attention on the Middle: The most important parts of any paper are the methods and results sections. While the temptation is to spend time on the introduction and discussion as they are often more readable and digestible, focus your early attention on the methods and results.

Play to Your Strengths: Your job as a reviewer is to offer your strengths to authors when reviewing their paper. For most reviewers, this revolves around understanding the clinical context the manuscript will contribute to and commenting on that. For some reviewers, but not all, this also includes statistical review. The important thing to remember is that you should not go outside of your wheelhouse. If you think the manuscript needs detailed statistical review and this is not your strength, you should feel comfortable and empowered to ask The Journal to conduct a statistical review.

Do Your First Read-Through Early: The earlier you can do your first read-through, the more time you have to digest and consider the article. If you can, do it the first day you

get the article so that you have the most possible time to think about it prior to getting deeper in the review process.

Common Pitfalls to Avoid:

Bias: Guard against personal biases and conflicts of interest that could influence your evaluation. If you feel that you cannot provide an unbiased assessment of the research, you should alert the editors and consider declining to review the article.

Lack of Detail: Ensure that your review is thorough and provides enough detail for authors to understand your comments. General, nonspecific comments (eg, “Good job, well-written article”) provide little information to help editors with their decision-making or to guide authors with their revisions.

Inconsistency: Maintain consistency in your assessment criteria throughout the review and between your reviews over time. Your process will develop as you complete more peer reviews, but you should strive to maintain consistency.

Rushing: Avoid rushing through the review process. Give the manuscript the time and attention it deserves. A typical review for a full-length original article may take anywhere from 2-4 hours depending on your content expertise and experience.

Thank You!

Your contribution as a peer reviewer is invaluable to *The Journal of Urology*[®] and the editorial staff, and by participating as a peer reviewer you are contributing to the science that moves our field forward. Thank you for what you do!