# Recent Issues in Medical Journal Publishing and Editing Policies: Adoption of Artificial Intelligence, Preprints, Open Peer Review, Model Text Recycling Policies, Best Practice in Scholarly Publishing 4th Version, and Country Names in Titles

Sun Huh, MD, PhD

Department of Parasitology, Institute of Medical Education, College of Medicine, Hallym University, Chuncheon, Korea

In Korea, many editors of medical journal are also publishers; therefore, they need to not only manage peer review, but also understand current trends and policies in journal publishing and editing. This article aims to highlight some of these policies with examples. First, the use of artificial intelligence tools in journal publishing has increased, including for manuscript editing and plagiarism detection. Second, preprint publications, which have not been peer-reviewed, are becoming more common. During the COVID-19 pandemic, medical journals have been more willing to accept preprints to adjust rapidly changing pandemic health issues, leading to a significant increase in their use. Third, open peer review with reviewer comments is becoming more widespread, including the mandatory publication of peer-reviewed manuscripts with comments. Fourth, model text recycling policies provide guidelines for researchers and editors on how to appropriately recycle text, for example, in the background section of the Introduction or the Methods section. Fifth, journals should take into account the recently updated 4th version of the Principles of Transparency and Best Practice in Scholarly Publishing, released in 2022. This version includes more detailed guidelines on journal websites, peer review processes, advisory boards, and author fees. Finally, it recommends that titles of human studies include country names to clarify the cultural context of the research. Each editor must decide whether to adopt these six policies for their journals. Editor-publishers of society journals are encouraged to familiarize themselves with these policies so that they can implement them in their journals as appropriate.

**Key Words:** Artificial intelligence; Culture; Peer review; Policy; Scholarly communication

**Correspondence to:**
Sun Huh, MD, PhD
Department of Parasitology, Institute of Medical Education, College of Medicine, Hallym University, 1 Hallimdaehak-gil, Chuncheon 24252, Korea
Tel: +82-33-248-2652
Fax: +82-33-256-3426
E-mail: shuh@hallym.ac.kr

## INTRODUCTION

The publishing environment of medical journal has changed significantly in recent years. Many society journals outsource various aspects of the publishing process, such as manuscript editing, English proofreading, the design of their journal websites, the creation of JATS XML full-text files, and the e-submission system. In this publishing environment, the editor is also known as an editor-publisher because he or she handles the responsibilities of a publisher. In contrast, some academic societies have partnered with international commercial

publishing companies that handle all aspects of the publishing process. In this case, the editor's role is primarily focused on peer review. In Korea, most editors of medical journal are editor-publishers. Therefore, they need to keep up with new publishing policies in order to compete with international journals by participating in editor organizations such as the Korean Association of Medical Journal Editors, the Korean Council of Science Editors, the Council of Asian Science Editors, the European Association of Science Editors, and the Council of Science Editors.

This review article aims to introduce recent issues in medical journal publishing and editing policies that can help editors-publishers of society journals. While there are many issues to consider, the selected topics have been chosen based on the author's experience consulting with colleague editors

### Invasion of Artificial Intelligence in Journal Publishing and Editing

On November 30, 2022, ChatGPT (Generative Pre-trained Transformer) was released as an artificial intelligence (AI) model that interacts with the user in a conversational way.[1] The author tested ChatGPT with the question, "What are the recent issues in medical journal publishing and editing policies?" The answers from ChatGPT were as follows:

There are a number of recent issues in medical journal publishing and editing policies, including:
  1. Access to research: ...
  2. Peer review processes: There has been ongoing discussion about the effectiveness and efficiency of the peer review process, including concerns about bias and the time it takes for research to be published. Some journals have adopted alternative review processes, such as open peer review, to address these concerns.
  3. Data sharing: ..
  4. Conflict of interest: ...
  5. Retractions: ..

Two hours later, the author received a different answer to the same question from ChatGPT (Fig. 1):

There are a number of issues that have been raised in recent years regarding publishing and editing policies of medical journal. Some of these include:
  1. Transparency: ...

  2. Bias: ...
  3. Access: ...
  4. Replicability: ...
  5. Data sharing: ...
  6. Peer review: There have been debates about the effectiveness of the peer review process, with some arguing that it is slow, biased, and prone to error, and others defending its importance as a means of ensuring the quality and integrity of published research.

The author was surprised to see that some of the issues raised by ChatGPT were the same as those proposed by the author in this review article, such as "peer review". The second set of topics suggested by ChatGPT, from 1 to 5, were also all included in the Best Practice guidelines. Although the answers provided were general and may require more specialized knowledge, they are reasonable as readily available answers to a query.

In addition to ChatGPT, AI programs are already starting to influence writing itself. In 2019, Springer Cham published an AI-written book called *Lithium-Ion Batteries: A Machine-Generated Summary of Current Research*.[2] Many AI tools are being introduced to help editors, including for manuscript editing, plagiarism detection, peer review, and statistical quality assessment.[3] Most publishers of medical journal already use similarity checks provided by Crossref and the e-submission system. However, the author does not have sufficient experience with peer review or statistical review using AI. Neverthless, there may be more powerful tools available to assist editors and reviewers.

### Rise of Preprints

During the COVID-19 pandemic, the policy on preprints has been a particularly important issue. A preprint is a version of a scholarly manuscript that is made available online prior to formal peer review and publication in a journal or conference proceedings. It allows authors to share their work with others in their field and receive feedback before it is officially published. Preprints are often posted on preprint servers, which are online repositories designed specifically for this purpose.[4] Traditionally, the medical community has not supported preprints on the arXiv platform because they have not undergone peer review. arXiv is a preprint repository for physics, mathematics, computer science, quantitative biology, statistics, and quantitative finance.[5] A preprint is also equipped with a digital object identifier (DOI). When any

preprint is published as an article in a scholarly journal, it also receives a new DOI from the journal. The published article can be continuously linked to the preprint through the DOI of the preprint version.[5] Many editors believed that the circulation of non-peer-reviewed manuscripts could potentially harm patient care. However, the COVID-19 pandemic has changed this perspective. The number of preprints on arXiv has increased significantly since 2020, particularly in the field of quantitative biology research related to COVID-19.[6] The number of preprints on medRxiv also increased from 788 in 2019 to 13,310 in 2020, 1,918 in 2021, and 11,061 in 2022.[7] Preprints have begun to be cited by the media before they are published in scholarly journals, and many medical journals have started to accept preprints. *eLife* (https://elifesciences.org/)—an initiative and open-access journal created by funders and led by researchers to transform research communication through improvements in science publishing, technology and research culture—has even made it a requirement to publish a preprint before submission since 2021.[8] In line with this trend, many medical journals in Korea have also announced their policies on preprints, including whether they accept preprint submissions and allow authors to cite preprints. Editors may also invite preprints to be submitted to their journals.

### Open Peer Review and the Role of a Gatekeeper

The traditional understanding of open peer review has been that the identity of authors and reviewers is revealed during or after peer review. However, a broader definition has been proposed by *F1000Research*.[9] *F1000 Research* (https://f1000research.com/) provides a publishing platform for researchers to publish their articles rapidly and make them available to readers immediately after publication. The articles submitted to the *F1000 Research* are peer-reviewed, and the reviews and decision letters are published with the articles. Although this definition is not widely accepted in *F1000Research*, it is worth mentioning:

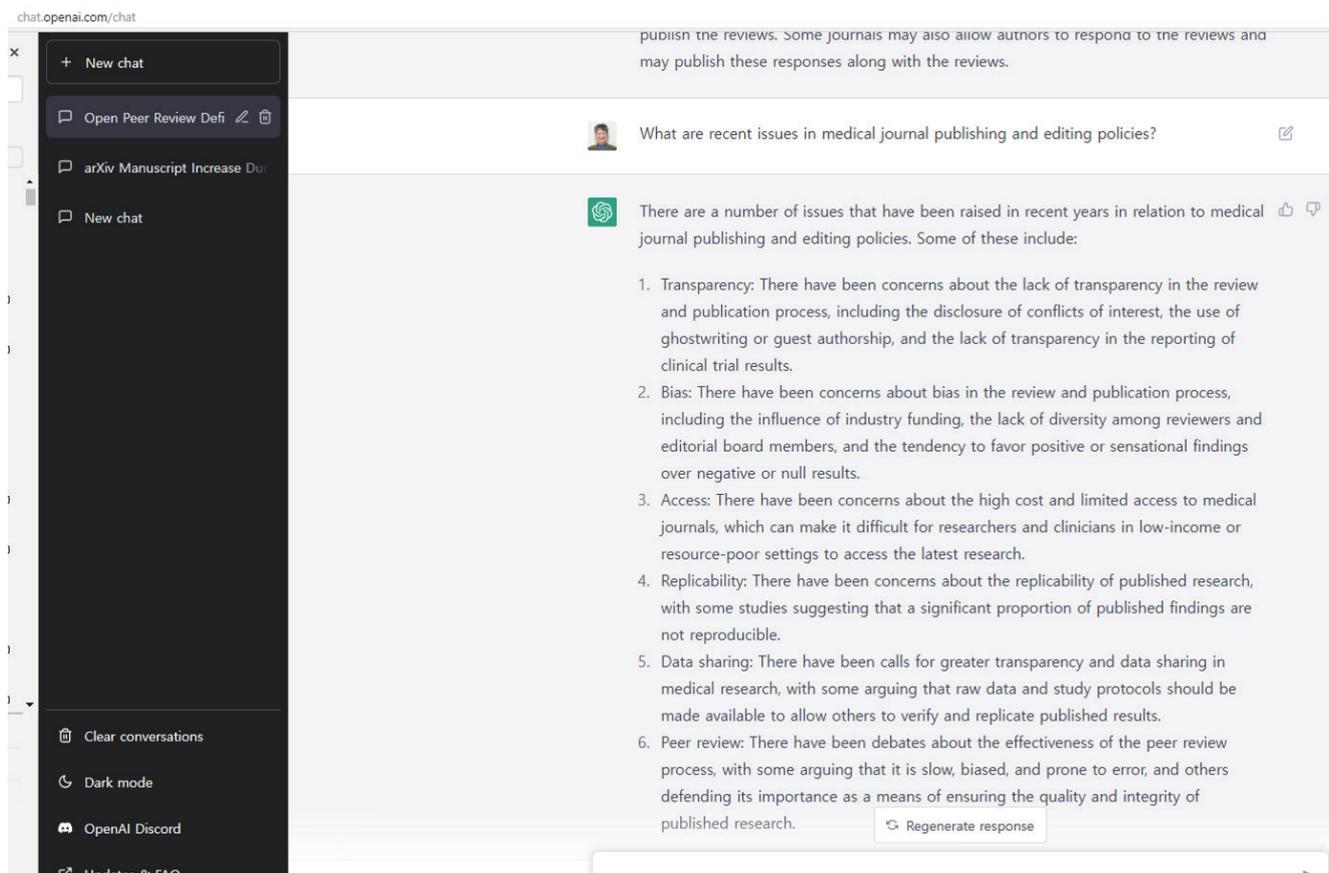> Open identities: Authors and reviewers are aware of each other's identities.



**Fig. 1.** Screenshot of the answers by ChatGPT to the question, "What are recent issues in medical journal publishing and editing policies?"

**Table 1.** Changed or new recommendations in the 4th version of the Principles of Transparency and Best Practice in Journal Publishing

| No. | Topics | Contents |
|---|---|---|
| Journal content | | |
| 1 | Name of journal | Not changed |
| 2 | Website | Websites should use a secure URL, starting with https. |
| | | The website should not copy another journal/publisher's site, design, or logo. If necessary, with acknowledgement. |
| | | The essential items displayed include aims and scope, the target readership, types of manuscripts, authorship criteria, and eISSNs/pISSN. |
| 3 | Publishing schedule | Not changed |
| 4 | Archiving | Archiving sites include PMC and those listed in the Keepers Registry (https://keepers.issn.org). |
| 5 | Copyright | Not changed |
| 6 | Licensing | Content designated as Open Access must use an open license. |
| | | If Creative Commons licenses are used, then the terms of that license should also link to the correct license on the Creative Commons website. |
| Journal practices | | |
| 7 | Publication ethics and related editorial policies | How the journal will handle allegations of research misconduct. |
| | | The editor or publisher should follow COPE's guidance (or equivalent) in dealing with allegations. |
| 8 | Peer review | Whether or not the content is peer reviewed. |
| | | Who conducts the peer review, for example, external experts or editorial board members. |
| | | The type of peer review process(es) used. |
| | | Any policies related to the peer review procedures, for example: |
| | |   1) Use of author-recommended reviewers. |
| | |   2) Any masking of identities, and if so who is masked and to whom. |
| | |   3) Whether or not supplementary material is subjected to peer review. |
| | |   4) Whether or not reviews are posted with articles. |
| | |   5) Whether or not reviews are signed or anonymous. |
| | | How a decision about a manuscript is ultimately made and who is involved. |
| | | Any exceptions to the peer review process, such as specific article types that do not undergo peer review. |
| | | If an article's peer review is an exception to the usual policy, the article should state what review it received. |
| | | Journals should not guarantee acceptance of initial manuscript submissions. Statements of peer review times should be supported by published timeframes on accepted papers. In the event of delays, authors should be informed of the reason for the delay and given the opportunity to withdraw their manuscript if they wish. |
| | | The date of publication should be published with all published research. Dates of submission and acceptance are preferred as well. |
| 9 | Access | Not changed |
| Organisation | | |
| 10 | Ownership and management | If a journal is affiliated with a society, institution, or sponsor, links to their website(s) should be provided where available. |
| 11 | Advisory body | Journals should have editorial boards or other advisory bodies whose members are recognized experts in the subject areas stated in the journal's aims and scope. |
| | | To avoid being associated with predatory or deceptive journals, journals should periodically review their board to ensure it is still relevant and appropriate. |
| 12 | Editorial team/contact information | Not changed |

**Table 1.** Continued

| No. | Topics | Contents |
|---|---|---|
| Business practices | | |
| 13 | Author fees | If the journal is likely to implement author charges in the future, this should be stated. |
| | | If waivers are available for author fees, this information should be clearly stated. |
| | | Waiver information should include: |
| | | (1) Who is eligible for a waiver. |
| | | (2) Which author(s) of the group must be eligible for the waiver to apply. |
| | | (3) When and how to apply for a waiver. |
| | | (4) Author fees or waiver status should not influence editorial decision making, and this should be clearly stated. |
| 14 | Other revenue | Business models or revenue sources (for example, reprint income, supplements, special issues, sponsorships) should not influence editorial decision making. |
| 15 | Advertising | Not changed |
| 16 | Direct marketing | Not changed |

Open reports: Review reports are published together with the relevant article.

Open participation: The wider community can contribute to the review process.

Open interaction: Direct interaction between author(s) and reviewers, and/or between reviewers, is allowed and encouraged.

Open pre-review manuscripts: Manuscripts are made immediately available (e.g., *via* preprint servers such as arXiv) prior to any formal peer review process.

Open final-version commenting: Review or comment on the final "version of record" publications.

Open platforms ("decoupled review"): Review is facilitated by a different organizational entity than the venue of publication.

Of the 7 characteristics mentioned, the first three items have been widely accepted. *eLife* announced on October 20, 2022 that it would abandon its role as a gatekeeper and publish all peer-reviewed manuscripts with reviewer comments.[7] This announcement means that readers can determine the value of each manuscript for themselves by reading the main text and the reviewers' comments. This is one of the most extreme open peer review policies. The value of each study may vary from 0% to 100% for different readers and in different scientific fields. Even studies of low value may be worthwhile to some readers if they are scientifically sound. It is up to the editor or publisher to decide whether to use open peer review or the mandatory publication of reviewer comments. In the future, *eLife*'s new peer review policy could be considered as a way to disseminate medical information more rapidly and transparently.

## Model Text Recycling Policies

In May 2022, a model text recycling policy was proposed after a four-year large-scale research project on text recycling sponsored by the United States National Research Foundation. Text recycling is defined as the "reuse of textual material (prose, visuals, or equations) in a new document where (1) the material in the new document is identical to that of the source (or substantially equivalent in both form and content); (2) the material is not presented in the new document as a quotation (*via* quotation marks or block indentation); and (3) at least one author of the new document is also an author of the prior document".[10] This project suggested that the background of the Introduction section and the Methods section can be recycled in a reasonable amount. For example, the methods used in a laboratory are often consistent, so the description of the Methods section may be almost identical to those in previous articles and does not need to be paraphrased. Some publishers may also accept limited recycling of discussion of previous relevant research. This recommendation helps researchers and editors in writing and reviewing manuscripts. It is important to distinguish text recycling from duplicate publication.[11] The project found that many editors accepted text recycling in a limited way, particularly in the Methods section. Some editors also already exclude the Methods section when using a plagiarism screening program. The consensus on text recycling that emerged from this project may provide a sense of comfort to researchers and editors.

### Updated 4th Version of the "Principles of Transparency and Best Practice in Journal Publishing"

The Best Practice guidelines were updated (4th version) on September 15, 2022.[12] These guidelines have been continuously revised since their first release in 2013. The 4th version is largely similar to the 3rd version, which was released on January 15, 2018. The 4th version categorizes 16 items into four categories: journal content (6 items), journal practices (3 items), organizations (3 items), and business practices (4 items). The most notable difference is the emphasis on accessibility, diversity, equity, and inclusivity. Specific changes in the 4th version are listed in Table 1.

The changes or new items in the Best Practice guidelines are not difficult to describe. The 4th version provides a more detailed explanation of some items for adherence to the guidelines. Therefore, it is sufficient for editors to simply state that the journal's policies follow the recommendations in the Best Practice guidelines.

### Country Name in the Title

Knipe and Jewkes[13] recommended that the name of the country should be included in the title of studies involving human subjects, particularly in case series or case reports. However, not all studies involving human populations published in most medical journals include the country name in the title. Cultural background is an important aspect of medical knowledge, and even though many articles come from a single country, it would be beneficial to include the country name in the title. This may encourage readers to read articles from their own countries more closely, although there is no concrete evidence to support this. Knipe and Jewkes[13] also recommended that "when previously conducted studies are reported, authors should highlight the context in which the studies originate." This comment is constructive. Including the name of country when citing other studies can help readers understand points of comparison based on the country.

## CONCLUSION

Six new issues or policies have been introduced. The use of AI tools, including ChatGPT, will increase for more efficient editing. The description of the adherence to the updated 4th version of the Best Practice guidelines must be fulfilled in all scholarly journals. It is still uncertain whether the model text recycling policy will become a standard in related ethics policies. Acceptance of preprints, open peer review, and the inclusion of the country name in the title are optional and depend on the journal's policies. It is up to the editor to decide whether to adopt these policies. However, it is suggested that society journal editor-publishers keep track of these policies. If they think any of these policies could be beneficial in promoting their journal, they can adopt or introduce them as needed. There may also be new policies or updated policies in the future, and society journal editors should be aware of these trends and the publishing environment to ensure that their journals maintain an international level of quality.

### Ethics Statement

This was not a human population study; therefore, neither approval from the Institutional Review Board nor the obtainment of informed consent was required.

### Conflicts of Interest

The author has no conflicts to disclose.

### ORCID

Sun Huh: https://orcid.org/0000-0002-8559-8640

## REFERENCES

1. OpenAI. ChatGPT: optimizing language models for dialogue [Internet]. San Francisco (CA): OpenAI; 2022 Nov 30 [cited 2022 Dec 25]. Available from: https://openai.com/blog/chatgpt/

2. Beta Writer. Lithium-ion batteries: a machine-generated summary of current research. Cham: Springer; 2019 pp. 247

3. Abdul Razack HI, Mathew ST, Ahmad Saad FF, Alqahtani SA. Artificial intelligence-assisted tools for redefining the communication landscape of the scholarly world. Sci Ed 2021;8:134-144

4. Smart P. The evolution, benefits, and challenges of preprints and their interaction with journals. Sci Ed 2022;9:79-84

5. Casey AR, Mandel I, Ray PK. The impact of the COVID-19 pandemic on academic productivity. [published online ahead of print Sep 14, 2021] arXiv 2021

6. Cold Spring Harbor Laboratory (CSH). medRxiv [Internet]. Cold

Spring Harbor (NY): CSH; 2020 [cited 2022 Dec 25]. Available from: https://www.medrxiv.org/

7. Eisen MB, Akhmanova A, Behrens TE, Diedrichsen J, Harper DM, Iordanova MD, et al. Peer review without gatekeeping. *Elife* 2022;11:e83889

8. ame5. New arXiv articles are now automatically assigned DOIs [Internet]. Ithaca (NY): Cornell University; 2022 Feb 17 [cited 2022 Dec 25]. Available from: https://blog.arxiv.org/2022/02/17/new-arxiv-articles-are-now-automatically-assigned-dois/

9. Ross-Hellauer T. What is open peer review? A systematic review. *F1000Res* 2017;6:588

10. Duke University. Text recycling research project [Internet]. Durham (NC): Duke University; 2022 [cited 2022 Dec 25]. Available from: https://textrecycling.org

11. Kim SY, Bae CW, Cho HM, Huh S. Comparison of the patterns of duplicate articles between KoreaMed and PubMed journals published from 2004 to 2009 according to the categories of duplicate publications. *Sci Ed* 2018;5:44-48

12. Directory of Open Access Journals (DOAJ). Principles of transparency and best practice in scholarly publishing. Version 4.0 [Internet]. Lund: DOAJ; 2022 Sep 15 [cited 2022 Dec 25]. Available from: https://doaj.org/apply/transparency/

13. Knipe D, Jewkes R. Equity in reporting settings of studies. *Eur Sci Ed* 2022;48:e87545