

Status of peer review guidelines in international surgical journals: A cross-sectional survey

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Abstract

Aim: To gain insight into the current status of peer review guidelines in international surgical journals and to offer guidance for the development of peer review guidelines for surgical journals.

Methods: We selected the top 100 journals in the category of ‘Surgery’ according to the Journal Citation Report 2021. We conducted a search of the websites of these journals, and Web of Science, PubMed, other databases, in order to gather the peer review guidelines published by these top 100 journals up until June 30, 2022. Additionally, we analysed the contents of these peer review guidelines.

Results: Only 52% (52/100) of journals provided guidelines for reviewers. Sixteen peer review guidelines which were published by these 52 surgical journals were included in this study. The contents of these peer review guidelines were classified into 33 items. The most common item was research methodology, which was mentioned by 13 journals (25%, 13/52). Other important items include statistical methodology, mentioned by 11 journals (21.2%), the rationality of figures, tables, and data, mentioned by 11 journals (21.2%), innovation of research, mentioned by nine journals (17.3%), and language expression, readability of papers, ethical review, references, and so forth, mentioned by eight journals (15.4%). Two journals described items for quality assessment of peer review. Forty-three journals offered a checklist to guide reviewers on how to write a review report. Some surgical journals developed peer review guidelines for reviewers with different academic levels, such as professional reviewers and patient/public reviewers. Additionally, some surgical journals provided specific items for different types of papers, such as original articles, reviews, surgical

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videos, surgical database research, surgery-related outcome measurements, and case reports in their peer review guidelines.

Conclusions: Key contents of peer review guidelines for the reviewers of surgical journals not only include items relating to reviewing research methodology, statistical methods, figures, tables and data, research innovation, ethical review, but also cover items concerning reviewing surgical videos, surgical database research, surgery-related outcome measurements, instructions on how to write a review report, and guidelines on how to assess quality of peer review.

Keywords: guidelines, peer review, review report, surgery-related outcome measurements, surgical database researches, surgical journals, surgical videos

INTRODUCTION

Peer review has been a core process of academic publication for more than 300 years and is recognized as the most important method for selecting high-quality papers by academic journals. In recent years, the number of academic papers has increased rapidly, and the demand for peer review has also increased (Saad et al., 2024). Both authors and journal editors expect peer review to detect errors in experimental design and methodology and to ensure that the interpretation of the findings is presented in an objective and thoughtful manner (Hall, 2022). However, the number of peer review experts has not increased accordingly. Experts, especially surgeons, who are willing to review manuscripts have very limited time and energy for peer review. Kovanis et al. (2016) reported that in 2015, literature review was a large burden, which exceeds the load of reviewers by 15% to 249%. Only 20% of researchers would like to act as peer reviewers. Among these peer reviewers, 70% of them spent 1% or less of their research work time to conduct peer review. In recent years, the supply–demand imbalance of experts is becoming increasingly prominent (Candal-Pedreira et al., 2023). Publishers have been exploring new and better methods to improve the efficiency and quality of peer review, such as using artificial intelligence (AI) tools to help find reviewers and provide auxiliary methods for method and image review (Donker, 2023). To incentivize researchers to perform peer review, Publons was launched in 2013 (integrated since 2022 into Clarivate's Web of Science) (Waltman et al., 2023). However, how to improve the efficiency of manuscript review from a methodological perspective has always been a hot topic and an area of difficulty. Concise and clear peer review guidelines can significantly help reviewers improve review quality, efficiency, and motivation (PLoS One, 2024; Roll, 2019). During the prevalence of the novel coronavirus, *Advances in Integrated Medicine* developed a rapid

Key points

- Current peer review guidelines for surgical journals mainly focus on research methodology, statistical analysis, tables, figures, data, innovation, and language delivery, including both academic and stylistic reviewing.
- Content characteristics of the surgical peer review guideline differ from the overall characteristics of biomedical journal peer review guidelines in terms of how to review surgical-related designs, surgical videos, surgical database research articles, and surgical-related outcome indicators.
- All surgical journals should collaborate to produce a guideline on how to write a review report, or provide a unified format or requirement for review reports.
- Accurate peer review guidelines are developed for various levels of reviewers, including junior and senior reviewers, professional reviewers and patients or public reviewers, as well as for different types of manuscripts, such as original articles, reviews, case reports, and surgical database researches.

guideline for a rapid review (Hunter, 2020), which greatly improved peer review speed and achieved rapid publication.

Peer review guidelines can help reviewers be adequately informed, making their review process transparent (Davis et al., 2018). For example, editors from 22 journals in psychological science have jointly released a peer review guideline to improve the replicability and transparency of statistical reporting of psychological science in the peer review process (Davis et al., 2018).

High-quality peer review guidelines can help experts conduct efficient reviews, provide constructive comments for authors, help authors improve the quality of their papers, and help editors make correct decisions on a manuscript (Zimba & Gasparyan, 2021). However, it is still uncertain about what a good peer review guideline needs to include in order to achieve the above goals (Mercieca et al., 2019). Through a systematic literature search, Song et al. (2021) selected 78 peer review guidelines for reviewers in biomedical journals published before February 2021 and comprehensively classified the contents of the 78 guidelines into 1811 items, of which 30.3% were related to reviewing methodology, 12.8% were related to reviewing results, and 10.5% were related to reviewing the discussion of the paper. This study summarized the overall characteristics of current peer review guidelines for biomedical journals, but it only included five surgical peer review guidelines (Brown et al., 2017; Pietrzak, 2010; Rosenfeld, 2010; Salasche, 1997; Stahel & Moore, 2016), and it did not specifically summarize the peer review items for reviewing surgical academic manuscripts, which have their own specificities. Surgical journals have special types of articles such as surgical videos, surgical techniques, surgical database research, and surgical-related outcome measurements. Therefore, it remains uncertain how the characteristics of peer review guidelines in international surgical journals differ from those in biomedical journals.

In this study, we systematically collected peer review guidelines from the top 100 journals in the category of 'Surgery' according to the Journal Citation Report 2021. We conducted a systematic analysis of their contents to understand the current status of peer review guidelines for reviewers in international surgical journals, with the aim to provide a reference for the development of surgical peer review guidelines in the future.

DATA AND METHODS

Inclusion and exclusion criteria

The inclusion criteria were as follows: (1) peer review guidelines for reviewers developed by the top 100 journals in the category of 'Surgery' according to the Journal Citation Report 2021; (2) a peer review guideline or a peer review consensus that was published publicly and defined by the author (we did not contact the journal to obtain the peer review guideline due to the difficulty of this); (3) a peer review guideline specifically developed for reviewers by a journal website or a publisher to which the journal belongs. The exclusion criteria were as follows: (1) editorial, commentary, review, or original articles about peer review; (2) paper reporting the methods and models of peer review in the submission guidelines for authors.

Literature collection

Firstly, we browsed the websites of the 100 journals and searched for peer review guidelines. If a journal website did not have a peer review guideline, we searched the website of the publishers to which the journal belonged and reviewed the peer

review guidelines of the journals. Meanwhile, we searched Web of Science, PubMed, Scopus, and other databases to retrieve peer review guidelines published by these 100 journals up to June 30, 2022. The search keywords included 'peer review', 'review', 'reviewing', 'guideline', 'guidance', 'recommendations', 'video', 'reviewer guideline', 'instruction', and so forth. The references of important articles were searched if necessary.

For example, we searched the Web of Science using the following character string: (((peer review[Title]) AND (guide*[Title]) NOT (systematic review[Title]) NOT (scoping review[Title]) AND (('1946/01/01'[Date - Publication]: '2023/06/30'[Date - Publication]))). 186 records were searched. We read these records one by one, finally including two records (Brown et al., 2017; Dinis-Ribeiro et al., 2013).

Content analysis of peer review guidelines

We read the peer review guidelines individually and classified their content based on the substantive meaning. The categories of the content were referenced (Song et al., 2021). All the authors discussed and confirmed the categories of content. For instance, the evaluation of research methodology was considered a category for reviewing research methodology. The content in the peer review guidelines for reviewing different types of manuscripts, such as original articles, reviews, surgical videos, case reports, and database articles, was separately categorized and analysed.

Quality control

The research team devised a unified method to analyse the content of peer review guidelines. Prior to the study, we trained two authors to meticulously read the peer review guidelines, analyse their content, and input the data into Excel for analysis. We designated five guidelines to be read separately by two authors, deliberated on the issues identified during the pre-analysis until a consensus was reached for quality control purposes. In case of any conflict, we engaged in thorough discussions to resolve it.

RESULTS

Overview of peer review guidelines in international surgical journals

A total of 16 peer review guidelines were included in this study (Brown et al., 2017; Burns Trauma, 2022; Dinis-Ribeiro et al., 2013; Elsevier, 2022; Haider et al., 2018; *Hepatobiliary Surgery and Nutrition*, 2022; *Journal of NeuroInterventional Surgery*, 2022; *Journal of the AAOS*, 2022; Mary Ann Liebert, Inc., Publishers, 2022; Publications JoVS, 2022; Salmi & Blease, 2021; Springer Nature, 2022; Stahel & Moore, 2016; *Transplant International*, 2022; Wiley, 2022; *World Journal of Gastrointestinal Surgery*, 2022). Among these, 13 peer review guidelines were sourced from the websites of 14 journals (with *J Thorac Cardiovasc Surg* and *Ann Thorac Surg* sharing the same peer review guidelines), and the remaining three peer review

TABLE 1 Content analysis of the peer review guidelines of 52 surgical journals.

Item	Content	Number of journal (%)
1	Research methods: (1) Repeatability, including analytical and experimental methods, inclusion and exclusion criteria, and definition of outcome indicators; (2) Using published methods requires citing references; (3) Name and supplier of instrument and equipment; (4) The research method section does not duplicate the introduction, results, or discussions	13 (25.0)
2	Whether statistical analysis, control, sample size calculation, and statistical reporting (P value, confidence interval, effect size) are appropriate and sufficient	11 (21.5)
3	Figures and tables: (1) The figures and tables are reasonably set to help understand the text content; (2) Use a table to describe the content that is difficult to express in words; (3) The figures should include uncertainties such as standard deviation, confidence interval, and sample size; (4) The content of the figure or table does not duplicate the text; (5) The data of figures are the main research results. Does it support the conclusion?	10 (19.2)
4	Whether the data supports the interpretation of results and research conclusions, and whether the results support conclusions	10 (19.2)
5	Innovation of research	9 (17.3)
6	Ethical review	8 (15.4)
7	Limitations of methods or defect of research	8 (15.4)
8	Language expression and readability	8 (15.4)
9	Completeness, relevance, novelty of references	8 (15.4)
10	Research purpose and principle, research hypothesis (question)	7 (13.5)
11	The importance of research questions or findings to readers (whether they will improve outcomes for surgical patients, whether they are interesting, whether they are clinically relevant, and what are the potential audience members?)	7 (13.5)
12	Advantages of methods or research, such as frontier of research	6 (11.5)
13	Attachment list, research protocol	2 (3.8)
14	Does the structure, flow chart, or writing of the manuscript need to be improved? The interpretation of the results is a discussion rather than a result. Interesting data, but not related to the results, are not reported as a result, but can be used as an attachment	4 (7.7)
15	Whether the title needs to be modified or improved	4 (7.7)
16	Summary summarizes the main research findings, is concise, and is readable for non- professionals	4 (7.7)
17	Conflict of interest	4 (7.7)
18	Compliance with reporting guidelines	3 (5.8)
19	Academic misconduct, such as plagiarism, image manipulation, and so forth.	3 (5.8)
20	Does the literature review section need to be supplemented or improved, such as missing important references or redundant references	2 (3.8)
21	Whether the generalization or relevance of this research result compared with other research results is fully elaborated	2 (3.8)
22	Informed consent	2 (3.8)
23	Is the control group set correctly	2 (3.8)
24	The key part of the paper summarizes the main research findings and whether further improvement is needed	1 (1.9)
25	If the author disagrees with the current academic consensus, are there any real cases? If not, what is needed to make the reason credible?	1 (1.9)
26	Can the research results improve the outcomes of surgical patients or address issues not previously addressed in basic research	1 (1.9)
27	Is the randomization method as 'surgical randomization' rather than true randomization	1 (1.9)
28	Confounding factors of observational variables in surgical trials	1 (1.9)
29	Whether the patient queue is continuously enrolled, and if not, whether there is selective bias	1 (1.9)

TABLE 1 Continued

Item	Content	Number of journal (%)
30	Common surgical outcome indicators include hospital death, length of stay, time off ventilator, surgery related complications, functional or radiological outcomes	1 (1.9)
31	Are insignificant changes truly clinically relevant (e.g. life expectancy within a few days after surgery, etc.)	1 (1.9)
32	Can keywords help readers retrieve the paper	1 (0.9)
33	Correlation between content and the scope of journal	1 (1.9)

guidelines were obtained from the websites of the three Publishers: including Elsevier (covering 19 journals), Wiley (covering six journals), and Springer Nature (covering 13 journals). Consequently, 52 (52.0%) journals had published peer review guidelines, while the other 48 journals had not published any peer review guidelines.

The contents of the 16 peer review guidelines were divided into 33 items, as shown in Table 1. A percentage of 25.0% (13/52) of journals' peer review guidelines were related to research methodology review; 21.1% (11/52) were related to statistical methodology review; 19.2% (10/52) were related to reviewing figures, tables, and data, including whether the data support the interpretation of results and research conclusions, and whether the results support the conclusions; 17.3% (9/52) were related to the novelty of the research; and 15.4% (8/52) were related to the language expression and readability of papers, ethical reviews, and references.

The peer review guidelines of *BMC Med* specifically described how to review surgery-related items, such as confounding factors for observational variables in surgical trials and the evaluation of surgical outcome indicators (Stahel & Moore, 2016).

Some journals have developed distinct peer review guidelines tailored to reviewers of different academic levels. For instance, three journals from BMC have formulated peer review guidelines specifically for junior reviewers, whereas *BMJ* has devised peer review guidelines for both professional reviewers and patient/public reviewers. Additionally, some journals offer peer review items tailored to different types of manuscripts, including original articles, reviews, and case reports. A proportion of 7.7% (4/52) of surgical journals had special items in the peer review guidelines highlighting key points for reviewing different structural components of the paper, such as the introduction, methods, results, and discussion. In addition, 7.7% (4/52) of journals had only one general peer review guideline; as illustrated in Table 2.

Key contents in peer review guidelines for different types of manuscripts

Items for reviewing surgical videos

J Am Acad Orthop Surg not only published the journal's peer review guideline (Journal of the AAOS, 2022), but also specialized in review items for surgical videos. It provided eight reviewing items related to title, indications and contraindications for surgical techniques and patients, 'off-label' use of FDA devices, universal precautions, preoperative and postoperative images, narration, safety and effectiveness, and overall rating of the video. The

eight reviewing items cover all aspects of surgical videos, and merit popularization and utilization in all surgical journals.

In the peer review guidelines of the other 51 journals, there was no specific item for reviewing surgical videos, although each of them have published videos.

Items for reviewing case reports

A total of 27 surgical journals, including the *J Am Acad Orthop Surg* (Journal of the AAOS, 2022), *J Vasc Surg* (Publications JoVS, 2022), 19 journals from Elsevier and six journals from Wiley provided peer review methods for reviewing case reports in their peer review guidelines. The peer review guidelines of *J Am Acad Orthop Surg* required reviewers to verify informed consent from patients when reviewing case reports. Unlike other journals, the peer review guideline of *J Vasc Surg* utilized a scoring system specifically for reviewing case reports and technical surgical papers. This system ranged from zero to 100 points, with the following criteria: 80–100 points indicated excellence and guaranteed publication; 60–80 points guaranteed publication but indicated the content was not novel and required major revisions; 40–60 points suggested the report was suitable for publication but needed improvement and was considered worthwhile to salvage; 20–40 points meant the case had major issues and would not be published; and 0–20 points indicated fatal defects or ethical concerns.

Among the 52 surgical journals, the peer review guidelines of the other 25 journals didn't provide specific items for reviewing case report, despite all 25 journals having published case reports.

Items for reviewing original article and review

The peer review guidelines of Elsevier (Elsevier, 2022) and Springer Nature (Springer Nature, 2022) specifically outlined the review points of the original article and review. In the peer review guidelines provided by Springer Nature, the reviewing items for each part of the paper, such as the introduction, methodology, results, and discussion, were also described separately; as shown in Table 3.

Peer review guidelines for reviewing surgical database research

In 2018, Professor Melina R. Kibbe, Editor-in-Chief of *JAMA Surg*, published a peer review guideline (Haider et al., 2018), providing a unique evaluation checklist to assist reviewers in assessing the scientific nature of database research. This guideline stated that

TABLE 2 Type of peer review guidelines of 52 surgical journals.

Types of peer review guideline	Number of journals [n (%)]	Name of journal or publisher
Guidelines for reviewers of different experience levels		
Junior and senior reviewers	3 (5.8)	BMC
Professional reviewer and patient/public reviewer	2 (1.9)	BMJ
Items in guidelines for different types of paper		
Original article	19 (36.5)	Springer Nature, Wiley
Review	19 (36.5)	Springer Nature, Wiley
Case report	28 (53.8)	<i>J Am Acad Orthop Surg, J Vasc Surg, Elsevier, Wiley</i>
Surgical video	1 (1.9)	<i>J Am Acad Orthop Surg</i>
Guideline for surgical database research	1 (1.9)	<i>JAMA Surgery</i>
The journal only has one general peer review guideline	4 (7.7)	<i>J Thorac Cardiovasc Surg, Ann Thorac Surg, Transplant International, Photomed Laser Surg</i>

Note: There were 21 journals in Elsevier, 13 journals in Springer Nature, six journals in Wiley, three journals in BMC, and two journals in BMJ.

JAMA Surg only published papers in which data were from 11 databases; meaning that the journal only recognized the reliability of data from these 11 sources. The review guideline enumerated ten items to guide reviewers in reviewing surgical database research: (1) Research assumptions and research questions. It is recommended to use the PICO (Patient, Population, or Problem; Intervention, Prognostic Factor, or Exposure; Comparison or Intervention; Outcome) principle and FINER (Feasible, Interested, Novel, Ethical, Advantage) principle to formulate research questions; (2) There should be full documentation of ethical review and data use agreements; (3) A comprehensive literature review should be conducted; (4) The variable setting should be optimal and capable of answering research questions; (5) Inclusion and exclusion criteria, as well as outcome variables, should be clear, and a flowchart should be used to describe the patient screening process; (6) Potential confounding factors should be identified, and risk adjustments should be used to minimize deviations; Consider utilizing a circular graph to represent potential associations; (7) Causal language should be avoided when reporting observational research results; (8) It should be ensured that data variables remain consistent over time; (9) Competitive risks should be identified and addressed; (10) Data issues, such as missing data and sensitivity analysis, should be fully

discussed. Additionally, it should be clearly explained how the research contributes new knowledge to the existing field and its significance for policy and clinical decision-making.

Of the 52 journals, 51 journals did not offer items for reviewing surgical database research, despite each journal having published papers on surgical database research.

How to write a peer review report

Among the 52 journals, 43 (82.7%) provided peer review guidelines with a checklist to guide reviewers on how to write a review report. These journals included 21 from Elsevier, 13 from Springer Nature, six from Wiley, three from BMC, two from BMJ, and *Endoscopy*. The contents of these checklists contained 28 items, as shown in Table 4. While these journals have different requirements for peer review reports, there are some common requirements. For example, including a 'summary of the manuscript' in the review reports was included in the peer review guidelines of 74.1% (40) of the surgical journals. Others necessary requirements, such as 'Check the abstract and research emphasis', 'Carefully evaluate methodology, statistical analysis, results, conclusions, and references', 'The comments are constructive, objective, strictly based on facts, and do not speculate on the author's motivation', are required by 48.1% (26) of the 52 journals.

The peer review guidelines of Elsevier (Elsevier, 2022) and Wiley (Wiley, 2022) described two forms of writing peer review reports: informal structures, which are written by experts based on experience, and formal structures, such as answering questions, filling out questionnaires, scoring cards, and specific guidelines for reviewers produced by journal staff. The review comments for authors in *Endoscopy* included primary and secondary comments (Dinis-Ribeiro et al., 2013). The main comments encompassed: (1) Potential biases such as selection, measurement, and blinding bias; (2) Methods to improve or clarify the quality of a method or surgery, considering its authenticity from the perspective of research issues and measurement indicators; (3) Enhancing the accuracy of statistical analysis methods; (4) Ensuring the accuracy and completeness of results description; (5) Revising the conclusions based on the results; (6) Adding important references to support conclusions. Secondary comments included: (7) Details of data analysis and results description details, figures and tables, and annotations; (8) Changes in title or abstract. The peer review guidelines of Springer Nature required two types of review feedback: one for editors and the other for authors. However, Springer Nature (Springer Nature, 2022) did not specifically describe how to write a peer review report in its peer review guidelines. Instead, it just mentioned that the review comments which were sent back to editors mainly evaluated the scientific rationality, novelty, quality, importance, and applicability of the manuscript to the journal, and emphasized that reviewers should avoid overly negative wording or personal comments. The peer review guideline of Springer Nature also required reviewers to provide both editors and authors with feedback on research methods or analysis issues.

TABLE 3 Items in the peer review guidelines for original articles and reviews in Elsevier and Springer Nature.

Type of paper	Name of publisher	
	Elsevier	Springer Nature
Original articles	Research purpose and principle	Research issues and their importance
	Detailed description of the research method allows for repetition or reproduction	(1) The novelty of research methods; (2) Major issues with research methods? (3) Is there a better way to confirm the results?
	Whether statistical analysis, control, sample size calculation, and statistical reporting (<i>P</i> value, confidence interval, effect size) are appropriate and sufficient	Are the results analysed and interpreted correctly? Does the evidence support the author's conclusion?
	Does the data support interpretation of results and research conclusions	(1) Will the results drive the field to some extent? If so, to what extent? Does its importance meet journal standards? (2) Are other researchers interested in reading this study? If so, what type of researcher? Are they consistent with the readers of the journal? (3) Does the content of the manuscript take into account international and cultural differences? Are there any other readers who are more suitable for this publication? For example, a study on kidney disease in children may be applicable to journals focused on paediatrics, or to journals targeted at nephrologists.
	Advantages and limitations of methods or research	
	Quality of manuscript writing: Does the structure, figure and table, or writing need to be improved? Will adding figures or improving the quality of existing figures and tables to improve the quality of the manuscript?	Quality of manuscript writing: whether the research method, results, and conclusions are clearly described
Review	Reasons for writing a review	The purpose of writing a review is to summarize the current state of understanding of a topic
	Whether to describe the current situation of a certain field and suggestions for future research	Unless it is a systematic review/meta-analysis, the method is not important or reported
	Whether the detailed description is sufficient to repeat or reproduce (such as retrieval strategies, inclusion criteria, bias risk assessments for individual or summary studies)	The quality of the paper can be judged based on the timeliness, breadth, and accuracy of the discussion, and whether it indicates the best approach for future research
	Whether statistical methods are appropriate and well described, such as meta-analysis, meta-regression, <i>P</i> values, confidence interval, review structures, figures and tables, or writing needs improvement (such as adding subtitles, shortening the full text, chapter reconstruction, and compliance with PRISMA guidelines)	
	Fully describe the most relevant and recent progress in this field	The review should provide a fair summary of current understanding of the topic, so peer reviewers must evaluate the selection of citations in the paper
	(Optional) Will language editing improve the quality of papers	Due to the large amount of detailed information contained in the overview article, its structure and process are also important

Abbreviation: PRISMA, preferred reporting items for systematic reviews and meta-analyses.

Peer review quality evaluation criteria

Among the peer reviewing guidelines of 52 journals, only the guidelines of two journals (*Endoscopy* and *Front Surg*) explicitly described the evaluation criteria for peer review quality. High-quality peer review required timely, accurate, complete, constructive, objective, and impartial opinions; see Table 5.

DISCUSSION

Current status of peer review guidelines for surgical journals

To the best of our knowledge, this is the first study to comprehensively review the current status of surgical peer review guidelines from multiple dimensions. Only 52.0% of the

TABLE 4 Key points for writing review reports in the peer review guidelines of 52 surgical journals.

Serial number	Structure	Key elements for writing peer review reports	Number of journal (%)
1	Summary	Main results of research	40 (74.1)
2		Overall impression of the article, including novelty, interest, and whether new knowledge has been added	20 (37.0)
3		Innovation and importance of research, innovation of research question	7 (13.0)
4		Important defects, potential biases, and their impact on the paper	7 (13.0)
5		The strength, quality, and integrity of the research	6 (11.1)
6		The research design and methods are sufficient to support conclusions	1 (1.9)
7	Important issues	Check the abstract and research emphasis	26 (48.1)
8		Carefully evaluate methodology, statistical analysis, results, conclusions, and references	26 (48.1)
9		Specific modification suggestions	26 (48.1)
10		Determine whether the paper meets the journal's manuscript requirements	20 (37.0)
11		Is the reliability and repeatability of data presentation and methods? Is the conclusion supported by data?	20 (37.0)
12		Are there any ethical or academic misconduct issues such as plagiarism? If so, please indicate in the confidential comments section	7 (13.0)
13		Is the reference cited appropriately: excessive, insufficient, or biased	7 (13.0)
14		Are there any factual, numerical, or unit errors? If so, please provide a specific description	7 (13.0)
15		Are there any major descriptive problem? Such as table and figure, language, or article structure	7 (13.0)
16		Is there any similar research which the author doesn't know	6 (11.1)
17		Is the discovery challenging the current knowledge, and if so, is the evidence sufficient?	6 (11.1)
18		Are charts and numbers appropriate, sufficient, and correctly cited	6 (11.1)
19		Is the comments can be used as commentary?	1 (1.9)
20		The accuracy, completeness, and authenticity of the result description	1 (1.9)
21		Way to improve methods and quality of surgery, and view their authenticity in term of research question and measurement indicators	1 (1.9)
22		Do the results support the conclusion and do important references need to be added to support the conclusion	1 (1.9)
23		Readability	1 (1.9)
24	Style	The comments are constructive, objective, strictly based on facts, and do not speculate on the author's motivation	26 (48.1)
25		Pay attention to evaluation bias in peer review	20 (37.0)
26		Polite, honest, and clear	6 (11.1)
27		Number the comments and opinions, and specific to the page and line of the main text	6 (11.1)
28		Treat the author's work as if you want others to treat your own work	6 (11.1)

Note: Elsevier includes 21 journals, and Wiley includes six journals.

100 surgical journals had published peer review guidelines. Perhaps some peer review guidelines of journal were not published but rather communicated directly to peer reviewers. From a

certain perspective, making peer review guidelines public suggested that those journals pay more attention to peer review guidelines than those that do not publish peer review guidelines.

TABLE 5 Key points of peer review quality evaluation criteria.

Key points of peer review quality evaluation standards	Journal name
The review comments are complete, fully clarifying the strengths and weaknesses of the paper	Endoscopy
Constructive comments	Endoscopy
Timely feedback	Endoscopy
Reviewer is an expert with professional knowledge who can access relevant literature to evaluate research	Front Surg
No conflict of interest between reviewers and authors	Front Surg
If there is a conflict of interest found during the peer review process, the reviewer can be withdrawn and replaced	Front Surg
If the reviewer requests the author to quote the reviewer's own article, remove and replace the reviewer's expert	Front Surg
Require reviewers to complete specific volume surveys, evaluate peer reviews, and provide constructive comments	Front Surg

There is still room for improvement in formulating and using peer review guidelines in surgical journals. Peer review is a learned and skilled process. Peer review guidelines are useful tools for reviewers to complete the reviewing of papers effectively. To date, there is no universal training for individual reviewers. There are some peer review training programs, such as the Peer Review Academy developed by the Association of Women Surgeons and the journal *Surgery* in 2021 (Weaver et al., 2022), and a Surgery Peer Review Academy for board-eligible surgeons interested in peer review in 2023 (Weaver & Hicks, 2023), which aims to train young surgical women to become proficient reviewers.

Overall, peer review guidelines have not been fully valued and utilized by publishers or journals. Hirst and Altman (2012) reported that only 35% of health journals published peer review guidelines. For surgeons, their time and energy for reviewing manuscripts are very limited. If publishers develop practical and convenient peer review guidelines, it can help them complete the task of reviewing manuscripts efficiently and quickly. At the same time, the enthusiasm of surgeons for reviewing manuscripts can be improved, and the problem of scarcity of surgical reviewers can be relieved to a certain extent.

In terms of content, peer review guidelines of surgical journals and biomedical journals both pay attention to reviewing the methodology of research, tables and figures, and data. Compared with the overall characteristics of peer review guidelines of biomedical journals (Song et al., 2021), peer review guidelines of surgical journals focus more on reviewing statistical methods, originality of research, ethical review, reference, and expression of text. Surgery often involves more innovative medical devices and new surgical technologies, and its innovation and ethical

review are particularly important. Also, a small sample size in surgical trials is very common. Thus, correct statistical methods and analysis must be used to avoid bias induced by this small sample. Thereby, when producing peer review guidelines for surgical journals, we should attach more importance to content on how to review the originality of research, ethical review, and statistical methods.

Developing practical and convenient peer review guidelines for surgeons that are scientifically sound is a challenge for surgical journals and publishers. In addition to common features of biomedical journal peer review guideline, surgical peer review guideline should also include review items with surgical characteristics, such as how to evaluate the quality and importance, authenticity of surgical videos, techniques (including descriptions of surgical techniques in case reports), and possible evaluation biases caused by surgery in research design, surgical techniques, and surgical-related outcome measurements.

With the development of modern information technology, surgical videos are becoming an important medium for surgical technology communication. Surgical journals not only use surgical videos as an attachment to their papers but also have specialized surgical video columns (Dong et al., 2019; Zuo & Lin, 2019), publishing surgical videos as specialized articles. We previously conducted a survey for more than 200 authors of our journal (we conducted this survey to help us manage the journal; the data were not published), and the results found that one of the authors' favourite papers is the surgical video report. Systematic reviews (Larkins et al., 2023; Youssef et al., 2023) showed that surgical videos can effectively improve surgical skill for educational purposes for students or surgeons with different experience levels. Therefore, it is necessary to develop peer review guidelines for surgical videos or provide specific items for reviewing surgical videos in the peer reviewing guidelines to help reviewers assess the scientific and normative nature of surgical videos. With the widespread use of robotic surgery, surgical videos are playing an increasingly important educational role and receiving increasing attention in journals. Experts from multiple disciplines have developed a consensus on surgical video reporting standards for education, including 36 items and seven categories: author information and video introduction, case introduction, surgical process demonstration, surgical results, relevant educational content, surgical video quality review, and the use of surgical videos in educational courses (Celentano et al., 2021). There were more detailed items in the surgical video literature (Celentano et al., 2021), especially in the report of surgical results, evaluation of surgical process, and video quality. It is a good reference for us to develop peer review guidelines for reviewing surgical videos in the future.

In our study, among 52 journals, only one journal (BMC) reported common surgical outcome indicators (listed as item 30 in Table 1). Key outcome measurements in a trial involving new surgical devices and surgical technologies are of utmost importance. Standardized outcome reporting can help avoid selective reporting bias such as exaggerating a procedure's benefits or underestimating its harms. A core outcome set (COS) in

surgery can help in producing standardized outcome review for surgical research. COS has been utilized in trials of innovative surgical procedures and devices (Avery et al., 2023), oesophageal cancer resection surgery (ten COSs including overall survival, in-hospital mortality, inoperability, the need for another operation related to their primary oesophageal, cancer resection surgery, respiratory complications, conduit necrosis and anastomotic leak, severe nutritional problems, the ability to eat and drink, problems with acid indigestion or heartburn, overall quality of life) (Avery et al., 2018); and in adult cardiac surgery (four COSs including mortality, quality of life, hospitalization, and cerebrovascular complication) (Benstoem et al., 2017). Therefore, in future peer review guidelines in surgical journals, COS in the surgical field can be recommended for reviewing the outcomes of surgical procedures.

Our research revealed that surgical peer review guidelines primarily emphasize research methodology (accounting for 25.0% of journal attention) and statistical analysis methods (constituting 20.4% of journal attention). The literature sources (Hesterman et al., 2018; Khadilkar, 2018) also reported that reviewers place more attention on research design and research methods. Hesterman et al. (2018) discovered that among 155 papers rejected post-peer review, 74.8% were due to methodological and research design deficiencies. Specifically, 60.0% had unclear reporting of methods, 53.5% featured inappropriate statistical analysis, 51.0% presented unsupported conclusions, 41.3% exhibited covariates/results problems, and 41.3% had control or case group issues. Khadilkar (2018) reported that the primary reason for the rejection of 400 manuscripts after peer review was methodological flaws. Therefore, in the future, surgical peer review guidelines should concentrate on research design and methods, delving deeply into the aspects of reviewing these components. When compared to peer review guidelines for general biomedical journals (Song et al., 2021), surgical peer review guidelines ought to place more emphasis on reviewing figures and tables, data, and the innovation of research.

Key points of peer review guidelines in surgical journals

In our study, assessment of language expression and readability was needed in peer review guidelines for 15.8% among the 52 surgical journals, while assessment of reasonableness of tables and figures was necessary in peer review guidelines for 19.2% of the 52 surgical journals. Some scholars argue that the main role of the reviewer during the peer review process is to assess the scientific, truthful, and innovative nature of research methods from an academic perspective (Glonti et al., 2019; Tennant & Ross-Hellauer, 2020), and that the evaluation of grammar, syntax, and design of tables and figures is not considered the most important thing for reviewers, because editors may share these tasks (Superchi et al., 2020). So the peer review guidelines should focus on the content for reviewing the academic nature of papers and exclude the content that can be completed by editors, to save reviewers' time.

How to write review report

In our study, there were a total of 28 items for review reports. The formats of review reports among peer review guidelines of the 52 journals varied significantly. Even for the most crucial item of 'summary', only 40 (74.1%) journals' peer review guidelines mentioned it. The review report is the most important and valuable work during the peer review process. However, there is a notable difference in the quality of peer review reports from different reviewers for the same manuscript. Although editors provide many checklists (Davis et al., 2018; Tullu & Karande, 2020) and tools (Superchi et al., 2019; Superchi et al., 2020) to evaluate the quality of review reports, there is no unified standard format for writing a review report. This lack of standardization has seriously affected the fairness and repeatability of peer review, thus negatively affecting the quality of peer review (Ruano-Ravina et al., 2023). Furthermore, writing a review report is a skilled and time-consuming work. A detailed description of how to write a high-quality review report in the peer review guidelines can enhance the quality and efficiency of peer review. Determining which elements should be included in a review report is a key issue.

We should comprehensively collect literature, solicit opinions from editors, reviewers, and authors, and reach a consensus on the minimum items to be included in writing review reports (Ruano-Ravina et al., 2023). At the same time, with the advancement of AI, large language models (LLMs) can assist reviewers in writing review reports of high quality. Furthermore, the guidelines should also clearly outline the content and methods of peer reviewers using LLMs to assist in writing review reports in a transparent way (Hosseini & Horbach, 2023).

Accuracy of peer review guidelines

According to the different academic level of reviewers, accurate peer review guidelines are developed for junior and senior reviewers, professional and patient/public reviewers, enabling publishers/journals to offer an accurate service for reviewers. In our study, only five surgical journals published peer review guidelines respectively for junior and senior reviewers (three journals in BMC), professional reviewers or patient/public reviewers (two journals in BMJ). Most of the 52 journals' peer review guidelines did not provide accurate guidelines for reviewers of different levels. In the year 2000, Seals and Tanaka (2000) in Department of Kinesiology and Applied Physiology, University of Colorado at Boulder, USA produced a checklist for students and other novice reviewers when they reviewed manuscripts.

Specific items in peer review guidelines for different types of paper, such as original articles, reviews, case reports, surgical videos, and surgical database research, are provided for reviewers to use accurately and can enhance the efficiency of the review process. In our study, 19 (36.8%) surgical journals' peer review guidelines described items specifically guiding reviewers to review original articles and reviews respectively. Among 52 surgical journals, 28 (53.8%) journals' peer review guidelines reported items that assist reviewers in reviewing case reports.

Only one journal (*JAMA Surg*) had review guidelines for surgical database research. In recent years, the amount of surgical database research has increased dramatically (Sebastian, 2016), making it crucial to know how to critically assess the quality of surgical database research. Different authors may draw opposite conclusions from the same data (Childers & Maggard-Gibbons, 2021). Therefore, we urge all surgical journals to prioritize the review methods of surgical database research and jointly develop peer review guidelines for this.

Differences between peer review guidelines and reporting guidelines

Reporting guidelines are guidelines for writing papers with different research designs, such as the reporting guidelines for randomized controlled trials (CONSORT) (Hopewell et al., 2022). A randomized controlled trial with 92 samples showed that using reporting guidelines such as CONSORT and Strengthening the Reporting of Observational Studies in Epidemiology (STROBE), during peer review improved the quality of peer review and ultimately improved the quality of the reviewed paper (Cobo et al., 2011). As of June 16, 2023, EQUATOR has issued 571 reporting guidelines (Equator Network, 2022), but there is no specific guidelines for peer reviewers. To save the limited energy and time of peer reviewers, it is necessary to develop peer review guidelines specifically for them. Of the 100 surgical journals surveyed, only 7.7% (4/52) required peer reviewers to follow reporting guidelines in the peer review guidelines (Brown et al., 2017). Peer review guidelines can help reviewers improve their reviews more accurately and efficiently than reporting guidelines. Editors can refer to relevant content of the reporting guideline when formulating peer review guidelines. In particular, the case reporting guidelines (CARE) (Gagnier et al., 2013), Development, Exploration, Assessment, Long-term monitoring (IDEAL) (Yu et al., 2021), and other relevant reporting guidelines can be used for reference when developing peer review guidelines for reviewers in surgical journals.

Limitations of our research

This study only investigated the peer review guidelines of the top 100 journals in the category of 'Surgery' according to the Journal Citation Report 2021 to understand the contribution of high-quality surgical journals to the development and application of peer review guideline. Some journals ranking below the top 100 journals in the category of 'Surgery' according to the Journal Citation Report 2021 (Allenn, 2014; Weaver et al., 2022) also publish peer review guidelines, which were not included in this study. Before this study, we conducted a preliminary search, and found that there were only a small number of peer review guidelines published by surgical journals ranking after the 100 journals in the category of 'Surgery' according to the Journal Citation Reports 2021. Thus, the exclusion of these studies may reduce the extensiveness of this study, but only to a small extent. We also only collected public peer review guidelines. We did not correspond with the journals to obtain peer review guidelines that

are not published. Therefore, the sample of this study is small. As a result, the generalizability of the conclusions of this study is somewhat limited.

Summary and future research directions

This study finds that current peer review guidelines for surgical journals mainly focus on research methodology, statistical analysis, tables, figures, data, innovation, and language delivery, including both academic and stylistic reviewing.

There are some peer review guidelines for different levels of reviewers and different types of manuscripts. The content characteristics of a surgical peer review guideline differ from the overall characteristics of biomedical journal peer review guidelines in terms of how to review surgical-related designs, surgical videos, surgical database research articles, and surgical-related outcome indicators. The future development of peer review guidelines by surgical journals should focus on the above content and academic review. With the fast development of AI tools such as LLMs like ChatGPT or Gemini, AI shows the potential to be used to support the peer review process. In addition to AI like ChatGPT, there are many professional AI tools used in the peer review process. SciScore (<https://www.sciscore.com/>) and RobotReviewer (<https://www.robotreviewer.net/about>) can automatically assess article methods, while AI tools like StatReviewer (<http://www.statreviewer.com/>) and StatCheck (<http://statcheck.io/>) could automatically check the statistical analysis, which are the most important items for surgical journals. There are many other AI tools for the initial quality check of a manuscript, which can significantly reduce the workload of the reviewers and improve the efficiency of the peer review process. AI tools like iThenticate and CopyScape could be used for plagiarism detection, ZeroGPT (<https://www.zerogpt.com/>), Wordvice AI (<https://wordvice.ai/cn>), Paraphrasingtool.ai (<https://paraphrasingtool.ai/>), Typeset.io (<https://typeset.io/>) and many other AI tools could be used to check the writing and whether the manuscript is written by AI. Penelope.ai (<https://www.penelope.ai/>) could ensure the structure of a manuscript meets the journal's requirements. However at the present time, AI tools like ChatGPT are not able to conduct accurate evaluation of research quality (Thelwall, 2024).

It is worth noting that, while AI-mediated peer review may enhance the efficiency of the peer review, it may also bring unexpected ethical concerns. For example, it is reported that 6.5% and 16.9% of peer review reports have been substantially modified by LLMs (Liang et al., 2024) and reviewers may use AI to write comments with peer check. *JAMA* is among the journals that provide a guideline for reviewers on use of AI, LLMs, and Chatbots, and requires reviewers to provide a description of the AI tool they used during the review process (Flanagin et al., 2023).

At the same time, accurate peer review guidelines are developed for various levels of reviewers, including junior and senior reviewers, professional reviewers and patients or public reviewers, as well as for different types of manuscripts, such as original articles, reviews, case reports, and surgical database

researches. This is done to achieve efficient and transparent review, saving reviewers' time.

Writing a review report is a time-consuming and skilled task. We hope that more journals will publish their peer review guidelines to facilitate convenient communication among reviewers and journal staff across different journals. All surgical journals should collaborate to produce a guideline on how to write a review report, or provide a unified format or requirement for review reports. Meanwhile, all surgical journals should jointly develop criteria for quality assessment of peer review that reflect surgical characteristics, such as surgical videos, surgical database papers, case reports, and so forth, while also preserving the autonomy and flexibility of each journal, and enabling the same reviewer to easily review manuscripts from different journals.

Currently, peer review guidelines are developed by various editorial departments of journals or publishers, but the development method is not clearly described, including whether reviewers participate in the development of the guidelines. There is no confirmed evidence to demonstrate the effectiveness or identify problems with peer review guidelines. We anticipate that in the future, evidence-based guidelines will be used to develop peer review guidelines, and prospective research will be conducted to determine whether peer review guidelines improve the efficiency of manuscript peer review. This research will provide evidence for the next step in optimizing the content of the guidelines and achieving efficient manuscript peer review. At the same time, reviewers, as users of peer review guidelines, can provide meaningful suggestions for the development of peer review guidelines. Therefore, it is recommended to invite reviewers to participate in the development of peer review guidelines to enhance their practicality.

AUTHOR CONTRIBUTIONS

Min Dong and Wenjing Wang are responsible for proposing research ideas, collecting data, and writing papers; Xuemei Liu proposed research, ideas, collected data, wrote the draft, and conducted key academic issues for revising key academic issues, Fang Lei participated in data collection, revising key academic issues in the paper, and reviewing the accuracy of the data. Yunmei Luo participated in data collection.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data are available from the corresponding author upon reasonable request.

REFERENCES

- Allenn, T. W. (2014). Conducting proper peer review for a journal. *Bariatric Surgical Practice and Patient Care*, 9(1), 18–20. <https://doi.org/10.1089/bari.2014.9967>
- Avery, K. N. L., Chalmers, K. A., Brookes, S. T., Blencowe, N. S., Coulman, K., Whale, K., Metcalfe, C., & Blazeby, J. M. (2018). Development of a core outcome set for clinical effectiveness trials in esophageal cancer resection surgery. *Annals of Surgery*, 267(4), 700–710. <https://doi.org/10.1097/SLA.0000000000002204>
- Avery, K. N. L., Wilson, N., Macefield, R., McNair, A., Hoffmann, C., Blazeby, J. M., & Potter, S. (2023). Core Outcomes for early pHasE Surgical Innovation and deVicEs (COHESIVE) study steering group. A core outcome set for seamless, standardized evaluation of innovative surgical procedures and devices (COHESIVE): A patient and professional stakeholder consensus study. *Annals of Surgery*, 277(2), 238–245. <https://doi.org/10.1097/SLA.0000000000004975>
- Benstoen, C., Moza, A., Meybohm, P., Stoppe, C., Autschbach, R., Devane, D., & Goetzenich, A. (2017). A core outcome set for adult cardiac surgery trials: A consensus study. *PLoS One*, 12(11), e0186772. <https://doi.org/10.1371/journal.pone.0186772>
- Brown, L. M., David, E. A., Karamlou, T., & Nason, K. S. (2017). Reviewing scientific manuscripts: A comprehensive guide for peer reviewers. *The Annals of Thoracic Surgery*, 103(5), 1365–1370. <https://doi.org/10.1016/j.athoracsur.2017.02.015>
- Burns Trauma. (2022). Peer review. https://academic.oup.com/burnstrauma/pages/General_Instructions#Peer%20Review
- Candal-Pedreira, C., Rey-Brandariz, J., Varela-Lema, L., Pérez-Ríos, M., & Ruano-Ravina, A. (2023). Challenges in peer review: How to guarantee the quality and transparency of the editorial process in scientific journals. *Anales de Pediatría (English Edition)*, 99(1), 54–59. <https://doi.org/10.1016/j.anpede.2023.05.006>
- Celentano, V., Smart, N., McGrath, J., Cahill, R. A., Spinelli, A., Challacombe, B., Belyansky, I., Hasegawa, H., Munikrishnan, V., Pellino, G., Ahmed, J., Muysoms, F., Saklani, A., Khan, J., Popowich, D., Ballecer, C., & Coleman, M. G. (2021). How to report educational videos in robotic surgery: An international multidisciplinary consensus statement. *Updates in Surgery*, 73(3), 815–821. <https://doi.org/10.1007/s13304-020-00734-5>
- Childers, C. P., & Maggard-Gibbons, M. (2021). Same data, opposite results?: A call to improve surgical database research. *JAMA Surgery*, 156(3), 219–220. <https://doi.org/10.1001/jamasurg.2020.4991>
- Cobo, E., Cortés, J., Ribera, J. M., Cardellach, F., Selva-O'Callaghan, A., Kostov, B., García, L., Cirugeda, L., Altman, D. G., González, J. A., Sánchez, J. A., Miras, F., Urrutia, A., Fonollosa, V., Rey-Joly, C., & Vilardell, M. (2011). Effect of using reporting guidelines during peer review on quality of final manuscripts submitted to a biomedical journal: Masked randomised trial. *BMJ*, 343, d6783. <https://doi.org/10.1136/bmj.d6783>
- Davis, W. E., Giner-Sorolla, R., Lindsay, D. S., Loughheed, J. P., Makel, M. C., Meier, M. E., Sun, J., Vaughn, L. A., & Zelenski, J. M.

- (2018). Peer-review guidelines promoting replicability and transparency in psychological science. *Advances in Methods and Practices in Psychological Science*, 1(4), 556–573. <https://doi.org/10.1177/2515245918806489>
- Dinis-Ribeiro, M., Vakil, N., & Ponchon, T. (2013). The editors' guide for peer review of papers submitted to Endoscopy. *Endoscopy*, 45(1), 48–50.
- Dong, M., Zhou, J., & Liu, X. M. (2019). Application of video technology in Chin J Clin Thorac Cardiovasc Surg. *Acta Editologica*, 31(1), 77–80.
- Donker, T. (2023). The dangers of using large language models for peer review. *The Lancet Infectious Diseases*, 23(7), 781. [https://doi.org/10.1016/S1473-3099\(23\)00290-6](https://doi.org/10.1016/S1473-3099(23)00290-6)
- Elsevier. (2022). Peer reviewers in Elsevier. <https://www.elsevier.com/zh-cn/reviewers>
- Equator Network. (2022). Library for health research reporting. <https://www.equator-network.org/library/>
- Flanagin, A., Kendall-Taylor, J., & Bibbins-Domingo, K. (2023). Guidance for authors, peer reviewers, and editors on use of AI, language models, and chatbots. *JAMA*, 330(8), 702–703. <https://doi.org/10.1001/jama.2023.12500>
- Gagnier, J. J., Kienle, G., Altman, D. G., Moher, D., Sox, H., Riley, D., & CARE Group. (2013). The CARE guidelines: Consensus-based clinical case reporting guideline development. *BMJ Case Reports*, 2013, bcr2013201554. <https://doi.org/10.1136/bcr-2013-201554>
- Glonti, K., Cauchi, D., Cobo, E., Boutron, I., Moher, D., & Hren, D. (2019). A scoping review on the roles and tasks of peer reviewers in the manuscript review process in biomedical journals. *BMC Medicine*, 17(1), 118. <https://doi.org/10.1186/s12916-019-1347-0>
- Haider, A. H., Bilimoria, K. Y., & Kibbe, M. R. (2018). A checklist to elevate the science of surgical database research. *JAMA Surgery*, 153(6), 505–507. <https://doi.org/10.1001/jamasurg.2018.0628>
- Hall, R. P., 3rd. (2022). Effective peer review: Who, where, or what? *JID Innovations*, 2(6), 100162. <https://doi.org/10.1016/j.xjidi.2022.100162>
- Hepatobiliary Surgery and Nutrition. (2022). Peer review process. <https://hbsn.amegroups.com/pages/view/peer-review-process>
- Hesterman, C. M., Szperka, C. L., & Turner, D. P. (2018). Reasons for manuscript rejection after peer review from the Journal *Headache*. *Headache*, 58(10), 1511–1518.
- Hirst, A., & Altman, D. G. (2012). Are peer reviewers encouraged to use reporting guidelines? A survey of 116 health research journals. *PLoS One*, 7(4), e35621. <https://doi.org/10.1371/journal.pone.0035621>
- Hopewell, S., Boutron, I., Chan, A. W., Collins, G. S., de Beyer, J. A., Hróbjartsson, A., Nejtgaard, C. H., Østengaard, L., Schulz, K. F., Tunn, R., & Moher, D. (2022). An update to SPIRIT and CONSORT reporting guidelines to enhance transparency in randomized trials. *Nature Medicine*, 28(9), 1740–1743. <https://doi.org/10.1038/s41591-022-01989-8>
- Hosseini, M., & Horbach, S. (2023). Fighting reviewer fatigue or amplifying bias? Considerations and recommendations for use of ChatGPT and other large language models in scholarly peer review. *Research Integrity and Peer Review*, 8(1), 4. <https://doi.org/10.1186/s41073-023-00133-5>
- Hunter, J. (2020). Rapid peer reviewer checklist for rapid reviews – RAPeer (DRAFT). *Advances in Integrative Medicine*, 7(4), 183–186. <https://doi.org/10.1016/j.aimed.2020.07.003>
- Journal of NeuroInterventional Surgery. (2022). Guidance for peer reviewers. https://jn.is.bmj.com/pages/authors/#peer_review
- Journal of the AAOS. (2022). Reviewer guidelines. <https://edmgr.ovid.com/jaaos/accounts/revinst.pdf>
- Khadilkar, S. S. (2018). Rejection blues: Why do research papers get rejected? *The Journal of Obstetrics and Gynecology of India*, 68(4), 239–241. <https://doi.org/10.1007/s13224-018-1153-1>
- Kovanis, M., Porcher, R., Ravaut, P., & Trinquart, L. (2016). The global burden of journal peer review in the biomedical literature: Strong imbalance in the collective enterprise. *PLoS One*, 11(11), e0166387. <https://doi.org/10.1371/journal.pone.0166387>
- Larkins, K., Khan, M., Mohan, H., Warriar, S., & Heriot, A. (2023). A systematic review of video-based educational interventions in robotic surgical training. *Journal of Robotic Surgery*, 17(4), 1329–1339. <https://doi.org/10.1007/s11701-023-01605-y>
- Liang, W. X., Izzo, Z., Zhang, Y. H., Lepp, H., Cao, H. C., Zhao, X. D., Chen, L. J., Ye, H. T., Liu, S., Huang, Z., McFarland, D. A., & Zou, J. M. (2024). Monitoring ai-modified content at scale: A case study on the impact of ChatGPT on AI conference peer reviews. arXiv:2403.07183.
- Mary Ann Liebert, Inc., publishers. (2022). For reviewers. <https://home.liebertpub.com/authors/for-reviewers/198>
- Mercieca, S., Belderbos, J., Gilson, D., Dickson, J., Pan, S., & van Herk, M. (2019). Implementing the royal college of radiologists' radiotherapy target volume definition and peer review guidelines: More still to do? *Clinical Oncology Journal*, 31(10), 706–710. <https://doi.org/10.1016/j.clon.2019.07.021>
- Pietrzak, W. S. (2010). A practical guide to effective journal peer reviewing. *Journal of Craniofacial Surgery*, 21(3), 631–636. <https://doi.org/10.1097/SCS.0b013e3181d8403c>
- PLoS One. (2024). Guidelines for reviewers. <https://journals.plos.org/plosone/s/reviewer-guidelines>
- Publications JoVS. (2022). Reviewer instructions. <https://www.sciencedirect.com/journal/journal-of-vascular-surgery/>
- Roll, S. C. (2019). The value and process of high-quality peer review in scientific professional journals. *Journal of Diagnostic Medical Sonography*, 35(5), 359–362. <https://doi.org/10.1177/8756479319853800>
- Rosenfeld, R. M. (2010). How to review journal manuscripts. *Otolaryngology and Head and Neck Surgery*, 142(4), 472–486. <https://doi.org/10.1016/j.otohns.2010.02.010>
- Ruano-Ravina, A., Pérez-Ríos, M., Rey-Brandariz, J., & Candal-Pedreira, C. (2023). Is it time for a common peer review format for biomedical journals? *Journal of Clinical Epidemiology*, 155, 129–130. <https://doi.org/10.1016/j.jclinepi.2023.01.001>
- Saad, A., Jenko, N., Ariyaratne, S., Birch, N., Iyengar, K. P., Davies, A. M., Vaishya, R., & Botchu, R. (2024). Exploring the potential of ChatGPT in the peer review process: An observational study. *Diabetology & Metabolic Syndrome*, 18(2), 102946. <https://doi.org/10.1016/j.dsx.2024.102946>
- Salasche, S. J. (1997). How to “peer review” a medical journal manuscript. *Dermatologic Surgery*, 23(6), 423–428. <https://doi.org/10.1111/j.1524-4725.1997.tb00081.x>
- Salmi, L., & Blease, C. (2021). A step-by-step guide to peer review: A template for patients and novice reviewers. *BMJ Health & Care Informatics*, 28(1), e100392. <https://doi.org/10.1136/bmjhci-2021-100392>

- Seals, D. R., & Tanaka, H. (2000). Manuscript peer review: A helpful checklist for students and novice referees. *Advances in Physiology Education*, 23(1), 52–58. <https://doi.org/10.1152/advances.2000.23.1.S52>
- Sebastian, A. S. (2016). Database research in spine surgery. *Clinical Spine Surgery*, 29(10), 427–429. <https://doi.org/10.1097/BSD.0000000000000464>
- Song, E., Ang, L., Park, J. Y., Jun, E. Y., Kim, K. H., Jun, J., Park, S., & Lee, M. S. (2021). A scoping review on biomedical journal peer review guides for reviewers. *PLoS One*, 16(5), e0251440. <https://doi.org/10.1371/journal.pone.0251440>
- Springer Nature. (2022). How to peer review. <https://www.springernature.com/gp/authors/campaigns/how-to-peer-review>
- Stahel, P. F., & Moore, E. E. (2016). How to review a surgical paper: A guide for junior referees. *BMC Medicine*, 14, 29. <https://doi.org/10.1186/s12916-016-0578-6>
- Superchi, C., González, J. A., Solà, I., Cobo, E., Hren, D., & Boutron, I. (2019). Tools used to assess the quality of peer review reports: A methodological systematic review. *BMC Medical Research Methodology*, 19(1), 48. <https://doi.org/10.1186/s12874-019-0688-x>
- Superchi, C., Hren, D., Blanco, D., Rius, R., Recchioni, A., Boutron, I., & González, J. A. (2020). Development of ARCADIA: A tool for assessing the quality of peer-review reports in biomedical research. *BMJ Open*, 10(6), e035604. <https://doi.org/10.1136/bmjopen-2019-035604>
- Tennant, J. P., & Ross-Hellauer, T. (2020). The limitations to our understanding of peer review. *Research Integrity and Peer Review*, 5, 6. <https://doi.org/10.1186/s41073-020-00092-1>
- Thelwall, M. (2024). Can ChatGPT evaluate research quality? *Journal of Data and Information Science*, 9(2), 1–21. <https://doi.org/10.2478/jdis-2024-0013>
- Transplant International. (2022). Guide to peer review. <https://www.frontierspartnerships.org/journals/transplant-international/for-reviewers>
- Tullu, M. S., & Karande, S. (2020). Peer reviewing an original research paper. *Journal of Postgraduate Medicine*, 66(1), 1–6. https://doi.org/10.4103/jpgm.JPGM_492_19
- Waltman, L., Kaltenbrunner, W., Pinfield, S., & Woods, H. B. (2023). How to improve scientific peer review: Four schools of thought. *Learned Publishing*, 36, 334–347. <https://doi.org/10.1002/leap.1544>
- Weaver, M. L., & Hicks, C. W. (2023). Introducing the SURGERY peer review academies. *Surgery*, 173(5), 1111–1112. <https://doi.org/10.1016/j.surg.2023.03.010>
- Weaver, M. L., Sundland, R., Adams, A. M., Faria, I., Feldman, H. A., Gudmundsdottir, H., Marmor, H., Miles, V., Ochoa, B., Ruff, S. M., Tonelli, C., Altieri, M. S., Cannada, L., Dewan, K., Etkin, Y., Marmor, R., Plichta, J. K., Reyna, C., Tatebe, L., ... Hicks, C. W. (2022). The art of peer review: Guidelines to become a credible and constructive peer reviewer. *Seminars in Vascular Surgery*, 35(4), 470–478. <https://doi.org/10.1053/j.semvascsurg.2022.10.002>
- Wiley. (2022). Step by step guide to reviewing a manuscript. <https://authorservices.wiley.com/Reviewers/journal-reviewers/how-to-perform-a-peer-review/step-by-step-guide-to-reviewing-a-manuscript.html>
- World Journal of Gastrointestinal Surgery. (2022). Peer-review process. <https://www.wjgnet.com/1948-9366/Nav/600>
- Youssef, S. C., Aydin, A., Canning, A., Khan, N., Ahmed, K., & Dasgupta, P. (2023). Learning surgical skills through video-based education: A systematic review. *Surgical Innovation*, 30(2), 220–238. <https://doi.org/10.1177/15533506221120146>
- Yu, J. J., Hirst, A., McCulloch, P., Shan, F., Hu, J. K., Sun, X., Liu, L. X., Liu, X. M., Dong, N. G., Chen, J. M., Qiao, G. B., Li, H. C., Liu, H., & Li, Y. P. (2021). The methodological framework of surgical innovation: The interpretation of IDEAL reporting guideline. *Chinese Journal of Clinical Thoracic and Cardiovascular Surgery*, 28(3), 263–270.
- Zimba, O., & Gasparyan, A. Y. (2021). Peer review guidance: A primer for researchers. *Reumatologia*, 59(1), 3–8. <https://doi.org/10.5114/reum.2021.102709>
- Zuo, Z. G., & Lin, Y. D. (2019). Key points of surgical video for manual layered intrathoracic anastomosis using a stomach esophagus pre-fabrication robot. *Chinese Journal of Clinical Thoracic and Cardiovascular Surgery*, 26(6), 523.