Reviewer Guidelines
What editors want to see in a good review of a research manuscript

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The following guideline is a short primer on how to review a manuscript for Progress in Transplantation. There are details specific to the journal throughout this guideline, but the tips can be used when reviewing for other journals. The aim of this guideline is to provide you with a basic structure for creating a solid and informative manuscript review.

Learning objectives
The participant will use this basic guideline for reviewing a journal article to:
1. Be able to describe the key ethical responsibilities when accepting an invitation to review a manuscript.
2. Be able to describe the 5 general questions when beginning a manuscript critique.
3. Be able to describe what to assess for each section of a research article.

Consider the following before you accept the invitation to review a manuscript. You can also find after accepting the invitation that you may not be able to provide an objective review.

1. Do you have a conflict of interest? A conflict may be that you work at the same institution as the author. Authors are asked not to put identifiers within their manuscript, but often they do it anyway. Or that you have a strong bias that goes in conflict with the subject and you feel you may not be able to put aside that bias and provide an objective review. Identifying a conflict of interest is an ethical responsibility of the reviewer. Do not accept a review that you will not be able to give the authors an objective critique.

2. Do you have sufficient knowledge of the content, design, or analysis to be able to complete a review? Not all reviewers are chosen because of content knowledge. There may be other reasons an editor asked for your input.

Reviewer ethics
1. The information you read is to remain confidential. Do not share the article with others nor share your impression or critique with others.
2. Reviewers are blinded to authors in most nursing journals. Do not contact authors nor discuss that you were a reviewer of a rejected or accepted manuscript.¹

General guidelines

The Big Five
Keep journal author guidelines available for reference. You may need to go online to find a copy of the journal’s author guidelines. New reviewers to a journal are provided a copy of the author guidelines in the invitation email. Knowing the journal expectations is helpful as you begin the critique.

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Before reading the manuscript in depth, do a quick read. What does the title tell you to expect? Then ask the following 5 questions:

1. What did the researchers want to find out? (the intent or purpose of the research)
2. Why is the topic important? (a general background of why the research is needed)
3. How did the researchers do the research? (the design/methods/procedure)
4. What were the results? (Can you find the answer to the research question?)
5. How does the research increase knowledge in the field? (did the investigators tie their results back to why it was important and how the findings can be used to expand knowledge?)

Once you have skimmed over the manuscript and have a global understanding of the purpose and outcomes, it is time to dig a bit deeper. Keep these next 8 questions in mind as you evaluate each section of the manuscript.

The Global Eight

1. Did the author organize the manuscript in a logical manner (and by the journal guidelines?)
2. Although you cannot do a word count, did the article match (in your best estimate) the journal author guidelines for size?
3. Is the writing clear?
4. Is the writing concise?
5. Is there an overuse of acronyms and abbreviations? Common well-known abbreviations can be used throughout; but often the author uses abbreviations that are common within their specialty but not well-known outside of that specialty. Abbreviations or acronyms may be used as the author is writing the manuscript to prevent constant spelling out of the words. And sometimes they plan to fool the editor by using abbreviations/acronyms to reduce word counts.
   a. If the abbreviation or acronym makes the writing clearer, then the abbreviation should remain. If you have to keep looking back to see what the abbreviation stands for, then the reader (and you the reviewer) are served more appropriately by spelling out the words.
   b. Make sure there is not an overuse of abbreviations. Sometimes just a visual check on a couple of pages will be all it takes to recognize abbreviation abuse.
   c. Style formats adopted by the journal have specific guidelines for abbreviations.
   d. *Progress in Transplantation* will not accept abbreviations for the transplant procedure when it describes patients. For example, SOT, LTx, LT, SKP, etc
   e. Encourage authors to resist the urge to label people by their surgical procedure.
6. Adjectives, adverbs, & medical jargon. There is a limited place for adjective or adverbs in scholarly writing. It is a common strategy in novice writers to over emphasize the importance (or lack) of the topic or the research findings. Examples include “very significant” or “extremely important,” “only.” Medical jargon is used in everyday communication with peers. Just read operative reports or discharge summaries for prime examples of medical jargon, but overuse of adjectives, adverbs, and jargon does not have a place in scholarly writing.
7. Authors often resort to italics or quotation marks for emphasis. Style formats adopted by the journal have specific guidelines for punctuation. *Progress in Transplantation* follows AMA Manual of Style. Quotation marks are used to indicate material is taken directly from another source and the page number where taken is placed in the citation.

8. Your role isn’t to edit the grammar or style but to assess the effectiveness of the author’s communication. Help the editor recognize poor or ineffective writing.

The Review

Your job is not to redesign the research, but to assess whether it is presented in a logical and cogent manner, following ethical and scientific principles.

Title

Does the title adequately describe the study? You may want to leave this until last. Titles are important for indexing and retrieving from search engines. They should be concise and contain specific key points of the study. A catchy title is not appropriate. *Progress in Transplantation* does not accept colons in titles.

Introduction

Key expectations

1. The introduction should logically lay out the importance and current knowledge of the topic of interest. The introduction is not an exhaustive discourse, but a concise logical argument for the research. This would include current research findings or gaps in the literature.

2. Unless the journal guidelines ask for a separate subheading for the research questions, the introduction ends with the purpose statement. The purpose statement is a declarative sentence of the research questions rather than a list of research questions as laid out in a research plan, thesis, or dissertation.

3. Ask yourself: Did the author write a logical argument for why the research is needed?

Design/Methods

Key expectations

This section is the driest piece to read, but for other investigators, a very important section. You should be able to connect the research design and method with the research question in such a way that you know it will test the question posed. There should be either subheadings to organize each part or separate paragraphs; this is guided by the author guidelines. Each part listed below should be presented in a logical manner.

1. **Design**- The type of design used for the study is described. The design is the plan or structure of how the study was implemented and differs from methodology. Methodology is how the investigators implemented the plan and the author should describe how the study was carried out in the Procedure section. The design can be stated in 1 or 2 sentences. This subheading is the most convenient place to state that the research received institutional review approval.

2. **Setting**- This is where the study took place. This is not the name of the institution but a description of where the subject participated in the research. For example, if participants were asked to complete a questionnaire, the description of where the participants were able to answer the questions without interference or influence. If participants had some
type of intervention, where this intervention was held. Authors are asked not to give names of hospitals or organizations to prevent bias during the review. Some authors don’t follow the rules (some just want bragging rights) but they open themselves for a reviewer to be biased about the research based on where the research is done. If you feel influenced by the research setting, give the editor the heads up that some of your statements may have been based on your implicit bias of the research setting. Many reviewers can set their biases aside, but if you feel you are greatly influenced by knowing where the study was done, simply ask the editor to re-assign the article to another reviewer (and the editor may opt to blind the article further).

3. **Population** – Description of the population from which the sample was drawn. This is not a description of their study sample, but a description of the characteristics of all patients. For example, if the study is about patients with end stage renal disease with skin cancer, then the population should describe all the renal patients in the setting where they drew their sample. That way, when you read their sampling plan or strategy, you can detect any sampling bias. This is the section that is most often left out of a manuscript. Pay close attention and remind the author that a description of the population is important.

4. **Sampling** – This is how they obtain the sample from the population. This would include inclusion and/or exclusion criteria, recruitment strategies, and randomization schema. In large studies, a flow diagram accompanies this section to give you a visual representation of how the investigators got to their sample size. Intervention studies are expected to have the flow diagram.

5. **Data collection** – This section needs to be in detail. Authors are encouraged to organize the data collection section in the same order as the research questions. The types of measures used to collect the information (by question) can be organized by creating a subheading for each type of variable. Keeping that same organizational structure in the results section makes it easier for the reader so that this section sets the flow for the procedure and result sections. The discussion of the findings should follow in the same order as well. The author provides a detailed description of each outcome measure, describing the concept it measures; how it is scored, range of scores, and psychometric properties. The outcome measure used for analysis is stated. In many cases, definitions of variable are described. For intervention studies, the author describes the intervention in sufficient detail, usually in a separate subheading or paragraph.

6. **Statistical Analysis** – For each research question, a description of the statistical tests used are described. Many times, this section is too brief. If the author does not describe how each research question is answered, please encourage author to provide a more detailed description. If regression analyses are used, details on how data are assessed to meet the assumptions of the regression statistic are included. If you have no background in statistics, then this section is hard to review. In your comment to the editor, just state you did not feel comfortable in assessing the statistics.

7. **Procedure** – This section is really the methods section—how the investigators collected the data. If the study is complex, the procedure may be explained in a step by step process. In some cases, the description of the procedures is fairly straightforward. As a reviewer, you should be able to clearly understand the process that the investigators used to get the data collected and without much effort, be able to replicate the methods.

**Results**
Key expectations
The research findings are presented in the same order that were outlined in the data collection (or outcome measures) section. If you refer back to the other sections of the manuscript, the purpose statement, data collection, and result sections, including the tables, are presented in the same logical order. Do the findings connect with the research question(s) and did they answer the question(s) posed? This is the section that readers often go to first, so as you read this section, is the information presented in a clear and concise manner? Subheadings can help organize the information and improve readability.

1. Demographic characteristics of the sample—the study sample is described. The first table of the manuscript usually describes the study sample. Data are presented in a logical order. Please take notice of the length of the table. Not every piece of demographic information collected needs to be in the table. The table should include the data that was important and used to answer the research question.

2. Outcomes—by research instrument or by research question. If there were more than one instrument, the results are described by instrument (following the order by which they were introduced in the data collection section). The author may have tables that accompany each outcome.

3. Tables are formatted according to the style chosen by the journal, but each should have a descriptive heading, numbers formatted appropriately, and a legend at the bottom for each abbreviation used. This is included even if the author provided definition in the text. A table should be understandable without reference to the manuscript text. Was there a discrepancy in terminology used in the table and the text? Is the table informative?

4. Figures are formatted according to the style chosen by the journal. A figure heading and legend should be present. You should be able to understand the figure without reference to the manuscript text.

Discussion
Key expectations
This is the interpretation section. The author helps connect the findings to what is known or not known. Be aware that authors may interpret the data beyond the findings. Sometimes authors get all wrapped up in trying to cure world hunger and want to say that what they found will change the course of history—remember they must connect their findings to the sample they tested. The question you ask yourself is: Did the conclusion come from the data? Did the author help you understand what they found? Were there any limitations to generalization of findings (i.e. sample size, homogeneity of sample, new method not extensively tested)? Commonly, this section does not have subheadings.

Conclusion
This is a wrap up. It does not repeat or introduce new findings but provides the reader with the take home message. The take home message should not be more research is needed and while this may be true, the conclusion provides the reader a concise statement of what they need to remember.

Abstract
Does the abstract follow the structure (subheadings, word count) of the author guidelines?
Is the purpose clearly stated?
Is the design described?
Are data variables included?
Are the conclusions concisely stated and do they match the purpose as stated?

Once you read the abstract, does the abstract reflect what you read in the manuscript?
You may need to compare abstract to the manuscript as sometimes authors forget to edit the abstract.

Tables and figures
While reading the section that refers to each table or figure, take the table and compare it with what is described in the text. Are there any discrepancies? Do the terms used in the table match what was used in the text? Is the table organized? If comparisons between groups are part of the analysis, were $P$ values included in the table? Are the figures clear? Can you describe the outcome by using the table without having to refer to the text? Provide authors any feedback on organization or clarity of table and figures.

References
This section of the paper is often left out. But references are key to building and expanding science, so it helps if the reviewer follows the reference list while reading the manuscript. A veteran reviewer may do this at the same time as critiquing the scientific rigor of the manuscript, but I do not recommend that to the new reviewer. Once you have made a written critique or at least organized what you plan to write up, read the manuscript again and note who and what was referenced along the way. You can learn a lot by reading the reference list.

1. Did the title of the article at least match (to the best of your knowledge) the sentence where it was cited?
2. How old was this reference? Would this be a seminal article, thus needing to be referenced, or is there a more recent publication?
3. Overall, how many references were older than 5 years? There is a lot of discussion in the editorial world about the age of references. Ideally, there should be no more than 20% of references older than 5 years. If a manuscript has greater than 50% older than 5 years, does that mean that the subject has not been studied enough? Or that it has been studied adequately and thus the manuscript under review does not add anything new?
4. Check the author guidelines. Did the author stay within the limits of references based on the manuscript type?

Reviewer wrap-up
You have been through the article and made notations. Ask again, did the introduction set the stage for the conclusions? These two sections should complement each other. Did the author answer the questions asked? And does this research add to the body of knowledge? You are asking yourself, is this research significant, original, performed following scientific principles, written clearly, and relevant to the journal audience? You are ready to complete the journal score sheet and write comments to the editor and comments to the author.

1. Score sheet—each journal has a set criteria checklist for you to respond. Some are more detailed than others. You know what you have read; answer based on your evaluation of the manuscript.
2. **Comments to the editor** - the comments to the editor do not go to the author, so you can provide a more critical assessment of the article here. Start comments with a short overview of the study, so the editor knows you have read the article. Two to 3 sentences are adequate. The editor needs information on the relevance of the article to the journal audience, appropriateness of the methods, and opinion of whether the topic is relevant to expand the science. Your thoughts on writing quality are always appreciated.

3. **Comments to the author** - this is a detail list of comments and recommendations to the author. Reviewers must be careful not to do personal attacks. The reviewer avoids negative statements, but certainly a critique for improving quality of manuscript. Each reviewer has their own writing style; but remember, you assessed for a logical and concisely written document, so it is your turn to present your recommendations and comments in a logical and concise manner. Abbreviations and sentence fragments are not warranted here. You want the author to understand you. A common structure for a review is outlined below. Under each section of the manuscript, organize your suggestions:
   a. General writing, spelling, formatting issues. If the problem is throughout the manuscript, you can make a general statement. If the problem is sporadic, you can provide a list by page and line numbers with the example and corrective action.
   b. Title-did the title adequately describe the study?
   c. Introduction
   d. Design/Method
   e. Results
   f. Discussion
   g. Conclusion
   h. Tables/Figures
   i. Abstract

There will be a place for you to recommend for publication; Choices may be:

1. **Accept without revisions** - this is rare but does happen. Many times, there are syntax or formatting issues are specific to the journal style guidelines that need correcting. These details are handled by the editor.

2. **Accept with minor revisions** - you decide, are the issues easily correctable (like spelling and formatting) or small editing to improve writing clarity?

3. **Accept with major revisions** (re-review) - when there are many details left out. You may have identified discrepancies in the purpose and measures, or the discussion went beyond the data presented. The author may need considerable revising to improve manuscript. Major revisions may have to undergo a second review. There may be a check off box asking if you would be available for a second review.

4. **Reject** - there are too many writing errors, a fatal flaw in the science, the topic has been over published, or not appropriate for the journal audience. Editors try to catch manuscripts that don’t meet the journal scope before it goes out for review but may be wrong. Rejecting a manuscript is not as easy as it sounds. The authors will want to know specifics on why the manuscript was rejected. Be sure your comments to the author justify your selection of reject.
Note: Even though you decide the manuscript warrants rejection, you can also relay to the editor that the author should be encouraged to resubmit after the work is more developed. A classic example of a rejection would be of a manuscript that was submitted where there were many writing flaws and incomplete descriptions of measures and procedures. You find the topic is of importance as most likely the science was good, just not written well, so you waiver between accept with major revisions and reject. You worry about being too harsh. Do not hesitate to reject if the manuscript is not done well. This saves the author a lot of time as there may be multiple revision turnarounds with the editor before undergoing a second review. The editor can always give the authors the opportunity to submit a new manuscript.