

Instructions for Authors for the *Journal of Graduate Medical Education*

1. Journal Mission and Audience

The *Journal of Graduate Medical Education* is a peer-reviewed journal with an emphasis on the education of medical residents and fellows and the settings in which it occurs. The content will be of interest to program directors, GME leaders, faculty, learners, and researchers. The *Journal's* aim is to promote scholarship in medical education and, ultimately, the quality of health care.

2. Criteria for Manuscripts

The Journal publishes original research, quality improvement and educational innovation articles, systematic reviews, short reports, editorials, and letters to the editor. Guidelines and word limits for each type of manuscript are shown in section 6 below.

Manuscripts should contain information important to the audience of the *Journal*. For research papers, the study methods should be appropriate and the data valid; and for both discussion papers and research papers, the conclusions should be reasonable and supported by data or evidence. Papers are selected on the basis of these criteria.

Manuscripts submitted must not have been published previously in print or electronic format, and must not be under consideration by another publication or medium. The *Journal* adheres to the Committee on Publication Ethics (COPE) Code of Conduct (<http://publicationethics.org/>) and authors should familiarize themselves with these guidelines.

Submission of a manuscript to the *Journal* implies that all authors have read and agreed to its content, and that any research reported was performed with the approval of an appropriate ethics committee or review board. A statement to this effect must appear in the Methods section of the manuscript, including the name of the body that gave approval, with a reference number. Where appropriate, informed consent should be documented. Manuscripts may be rejected if the study does not appear to have been conducted in accordance with these guidelines.

3. Manuscript Preparation

File formats

The following word processor file formats are acceptable for the main manuscript:

- Microsoft Word
- WordPerfect
- Rich text format (RTF)

Please do not submit a manuscript in PDF form. Users of other word processing packages should save or convert their files to RTF before uploading.

Typography

- Text should be double-spaced, left aligned (unjustified), without hyphenating words at line breaks.

- Capitalize only the first word, and proper nouns, in the title.
- All pages should be numbered.
- Footnotes to text should not be used. Material considered appropriate for footnotes should be referenced.
- Special characters (such as Greek letters) may be included. If you are unable to reproduce a particular special character, please type out the name of the symbol in full.
- For in-text citations, use super-scripted numbers (ie, “In a previous study,¹ Smith observed...”)
- Use super-scripted letters (ie, ^{a,b,c}, etc), in tables and figures to identify notes (not daggers, asterisks, etc).

Papers not correctly formatted will be returned to the authors for correction and resubmission.

Preparing tables

Each table should be numbered in sequence using Arabic numerals (ie, Table 1, 2, 3, etc.). Tables should also have a title that summarizes the whole table using a maximum of 15 words. Detailed legends may then follow, but should be concise. Tables should be self-explanatory and not require discussion in the text.

Smaller tables can be pasted into the end of the document text file. The tables should be formatted using the “Table object” in a word processing program to ensure that columns of data remain aligned when the file is sent electronically.

Larger datasets and blank survey forms can be uploaded separately as additional files. The *Journal* encourages authors to share forms and interview outlines used for survey research. Additional files will not be displayed in the final, published form of the article, but a link will be provided to the files as supplied by the author. See “Supplemental online only content” below.

Tabular data provided as additional files can be uploaded as an Excel spreadsheet (.xls) using appropriate file names and standard file extensions.

Boxes

All single cell tables, such as bulleted ideas or lists of key concepts or themes will be published as “boxes.” “Boxes” may be pasted with the text they accompany or at the end of the text document.

Figures

Figures should be provided as separate, individual files.

The following file formats can be accepted:

- Microsoft Word (version 5 and above; figures must be a single page)
- PDF (especially suitable for diagrams)
- .jpg, .tiff, .gif, .ppt

Figure resolution must be 200 dpi or higher. Each figure should comprise a single file.

Figures will be printed in black only unless authors have arranged to pay for color charges. Consideration for color will be given on a case-by-case basis and costs will be determined accordingly.

Figures should be cited consecutively in Arabic numerals in the text with figure legends part of the text files. Legends should contain sufficient explanation so the figures can be interpreted without reference to the text. All figures are to be submitted in such form as to permit reproduction without additional retouching or typesetting. Lettering and labeling should be large enough to allow reduction for appropriate page layout.

Figure legends

The legends should be included in the main manuscript text file immediately following the references, rather than being a part of the figure file. For each figure, the maximum word count for the figure legend is 200 words.

If figures or tables have previously been published, it is the responsibility of the author(s) to obtain permission from the copyright holder to reproduce them in the *Journal of Graduate Medical Education*. Appropriate credit lines must be included in the figure legend. Documentation of permission to reproduce must be sent with the manuscript at the time of submission.

Supplemental online only content

An author may wish to provide data sets, survey instruments or interview outlines, tables, movie files, or other information as additional information. These files can be uploaded using the "Additional Material files" button in the manuscript submission process. List all supplemental content consecutively at the end of the manuscript. This list should include the type of material submitted, should be clearly labeled as "supplemental content," and numbered consecutively in the text.

4. Manuscript Submission

Manuscripts must be submitted by one of the authors of the manuscript. Manuscripts should be submitted online at <http://www.editorialmanager.com/jgme/>. Instructions and support are available from the site. A user ID and password need to be obtained on the first visit.

The submitting author takes responsibility for the article during submission and peer review. To facilitate rapid publication, the *Journal of Graduate Medical Education* accepts all submissions via its online review system.

All parts of the manuscript must be available in an electronic format. During submission the submitting author is asked to provide a cover letter that discusses why the manuscript should be published in the *Journal of Graduate Medical Education*, and addresses any areas and aspects of the manuscript that are covered by the *Journal's* editorial policies detailed in the instructions for authors.

Questions about manuscript preparation and submission should be directed to Kavitha Reinhold, Senior Editorial Associate, JGME (kreinhold@acgme.org or 312/755-7485) or Amanda Musolff, Editorial Associate, JGME (amusolff@acgme.org or 312/755-7487).

Sources of funding and the involvement of medical writers or anyone else who assisted with the preparation of the manuscript content should be acknowledged in the manuscript.

Implicit in the submission process is that author(s) own all rights in the work except as indicated by permission grants, the article is original and has not been published previously, and the article is not under consideration by another journal. All rights are transferred to the Accreditation Council for Graduate Medical Education who will register the copyright per the copyright form submitted at time of manuscript acceptance.

5. Editorial and Peer Review Processes

Manuscripts submitted via the online portal will be sent to peer reviewers. Statistical reviewers may also be used when indicated by the amount of statistical information in the article.

Reviewers are asked to declare any competing interests.

The review seeks to establish whether the manuscript is scientifically sound and coherent, whether it addresses a topic of interest and relevance to the Journal's audience, and whether the quality and clarity of the writing is acceptable. The final decision will be based on whether the reviewers are in accordance with one another, or if there is no significant disagreement. In cases with significant disagreement, advice is sought from a member of the *Journal's* Editorial Board. Reviewers may sign their reviews with the aim of providing feedback to authors if they wish.

Accepted manuscripts are edited according to the *Journal's* style, grammar, punctuation, clarity of language, and euphony, and returned to the author as page proofs for approval. Reviewers are asked to indicate which articles they consider to be especially pertinent or important to the audience of the *Journal of Graduate Medical Education*. These articles may be given greater prominence and external publicity, and may be accompanied by an editorial.

Information that should be provided for all articles includes:

- List of abbreviations used (if any)
- Competing interests (form)
- Acknowledgments
- References
- Figure legends (if any)
- Tables and captions (if any)
- Description of additional data files (if any)
- Copyright assignment (form) (to be completed after acceptance)
- Title page listing all authors' degrees, affiliations, their roles at their institutions or organizations, and contact information for the corresponding author

Authors should refer to the EQUATOR network website for added information on reporting guidelines for health care research, and should use these guidelines in drafting their manuscript; peer reviewers may refer to them when evaluating studies.

Declaring and Managing Competing Interests

Competing interests exist in many contexts and it is not possible to completely eliminate them. Potential for competing interests may come from financial ties, including payment for research, ownership of stock and stock options, honoraria for consultations, speaking engagements and similar activities, among others, and academic and institutional affiliations and commitments.

- 1) Authors need to list the source(s) of funding for the study, for each author, and for the manuscript preparation, and must describe the role of the funding body, if any, in study design; in the collection, analysis, and interpretation of data; in the writing of the manuscript; and in the decision to submit the manuscript for publication. This should be provided as a separate section of the manuscript, to follow the acknowledgments section.
- 2) Every author also needs to indicate any potential competing interests by completing the *Journal's* conflict of interest form as part of the manuscript submission process (PeerTrack (<http://www.editorialmanager.com/igme/default.asp>)). Potential competing interests that have been declared will be listed at the end of the published article. If an author gives no competing interests, the listing will read "The author(s) declare that they have no competing interests."
- 3) Editors and reviewers also may have conflicts of interest or competing interests with a given manuscript and/or its authors, and are expected to recuse themselves from the review if a conflict or significant competing interest exists.

Guidance regarding competing interests can be found in the following publications: Smith R. Making progress with competing interests. *BMJ*. 2002; 325(7377):1375-1376.

DeAngelis CD, Fontanarosa PB, Flanagin A: Reporting financial conflicts of interest and relationships between investigators and research sponsors. *JAMA*. 2001; 286:89-90.

References

All references must be numbered consecutively in the order in which they are cited in the text, followed by any in tables or legends. Examples for a range of different types of references are provided below. Journal abbreviations must follow Index Medicus/MEDLINE formats. Citations in the reference list should contain all named authors. Reference style should conform to AMA Manual of Style, 10th ed.

Journal article

1. Horwitz LI, Krumholz HM, Green ML, Huot SJ. Transfers of patient care between house staff on internal medicine wards: a national survey. *Arch Intern Med*. 2006;166(11):1173-1177.

Link / URL

2. Joint Commission on the Accreditation of Healthcare Organizations. 2006 National Patient Safety Goals, [http://www.jointcommission.org/PatientSafety/National Patient SafetyGoals/06_npsg_dsc.htm](http://www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/06_npsg_dsc.htm), Accessed February 8, 2009.

Book

3. Patton, M.Q. *Qualitative Evaluation and Research Methods*. 3rd ed. Newbury Park, CA: Sage Publications; 2000.

Book chapter or article in a book

4. Cacioppo JT, Petty RE. Social psychological procedures for cognitive response assessment: The thought listing technique. In: Merluzzi T, Glass C, Genest, M, eds. *Cognitive Assessment*. New York: Guilford, 1981:309-342.

Conference proceedings not published in a book or journal

5. Jones DL. ed. Proceedings: Eighteenth Annual Conference on Research in Medical Education. Paper presented at 19th Annual Conference on Research in Medical Education; November 1979; Washington, DC.

Thesis or dissertation

6. Dale, DC. *A Brief History of Graduate Medical Education in Washington, Alaska, Montana and Idaho*. [master's thesis], Seattle: University of Washington; 1972.

Government report

7. Johnston LD, O'Malley PM, Bachman JG. *Monitoring the Future: National Survey Results on Adolescent Drug Use: Overview of Key Findings*. Bethesda, MD: National Institute on Drug Abuse, US Dept of Health and Human Services; 2000.

Non-Government Report

8. Millis JS. *The Graduate Education of Physicians. Report of the Citizens' Commission on Graduate Medical Education*. Chicago: American Medical Association; 1966.

6. Types of Articles

Please read the descriptions of each of the article types, choose which is appropriate for your article and structure it accordingly. When in doubt, your manuscript should be classified as a Research article. Additional instructions for some manuscript formats are provided.

Original Research Articles

Articles report research and studies relevant to graduate medical education and the environment and settings in which residents learn and participate in patient care. Manuscripts should address an identified problem or need, and suggest indications for changes in practice. Articles may contribute toward defining standards or developing outcome measures for graduate medical education or quality of care in settings where residents learn and participate in care.

Word count: up to 2,500 words (3,250 for qualitative studies). Tables/Illustrations: Not to exceed 6 tables and illustrations combined.

Quality Improvement or Educational Innovation

Articles report research and studies relevant to graduate medical education and the environment and settings in which residents learn and participate in patient care. Manuscripts should identify the need for quality improvement or innovation, and suggest how the local change or innovation may be useful in other settings to improve the quality of graduate medical education or health care in settings where residents learn and participate in care.

Word count: up to 2,500 words (3,250 for qualitative studies). Tables/Illustrations: Not to exceed 6 tables and illustrations combined.

Systematic Reviews

Articles aggregate the existing literature on a topic in graduate medical education. The manuscript should provide a concise account of the methods used, and highlight key aspects of interest and relevance to physician education.

Word count: up to 3,250 words. Tables/Illustrations: Not to exceed 6 tables and illustrations combined.

Short Program/Project Descriptions

Short, practical descriptions of graduate medical education practice. These must convey information sufficiently novel to be of importance to other programs and institutions. Short reports also may include articles describing policy development or efforts to develop consensus statements within the graduate medical education community.

Word count: up to 1,500 words. Tables/Illustrations: Not to exceed 2 tables and illustrations combined.

Editorials

Editorials are generally commissioned by the editors of Journal of Graduate Medical Education. Suggestions for possible topics and authors are welcome. Please e-mail suggestions to jgme@acgme.org

Letters to the Editor

Letters containing original research should be submitted via the Journal's online submission system. They may be published in a shortened form at the discretion of the editor, and should be prepared like other article types.

Word count: up to 400 words. References: up to 4.

Format for Original Research Articles

Manuscripts for Research articles should include the following sections:

- Title page
- Abstract

- Background
- Methods
- Results
- Discussion
- Conclusions

Title page

The title page should list the title of the article. The full names, institutional addresses, and e-mail addresses for all authors must be included on the title page. The corresponding author should be indicated.

Abstract

The abstract of the manuscript should not exceed 300 words and should be structured into separate sections: Background, the context and purpose of the study; Methods, how the study was performed and statistical tests used; Results, the main findings; Conclusions, brief summary and potential implications.

Background

The background section should be written from the standpoint of researchers without specialist knowledge in that area and must clearly state—and, if helpful, illustrate—the background to the research and its aims. Reports of clinical research should, where appropriate, include a summary of the literature review to indicate why this study was necessary and what it aimed to contribute to the field. The section should end with a very brief statement of what is being reported in the article.

Methods

This should include the design of the study, the setting, the type of participants or materials involved, a clear description of all interventions and comparisons, and the type of analysis used, including a power calculation if appropriate.

Results and Discussion

The Results and Discussion may be combined into a single section or presented separately. Results of statistical analysis should include, where appropriate, relative and absolute risks or risk reductions, and confidence intervals. The results and discussion sections may also be broken into subsections with short, informative headings.

Conclusions

This should state clearly the main conclusions of the research and give a clear explanation of their importance and relevance. Summary illustrations may be included.

Format for Quality Improvement/Educational Innovation Articles

Manuscripts for Quality Improvement/Educational Innovation articles should include these sections:

- Title page
- Abstract

- Background
- Methods
- Results
- Discussion
- Conclusions

Title page

The title page should list the title of the article. The full names, institutional addresses, and e-mail addresses for all authors must be included on the title page. The corresponding author should be indicated.

Abstract

The abstract of the manuscript should not exceed 300 words and should be structured into separate sections. It should address the specific innovation or quality improvement, and state the specific aim of the intervention, specifies the study method used (for example, “A qualitative study” or “A randomized cluster trial”), and summarizes the important information from various sections of the text.

Introduction

The introduction should discuss the nature and severity of the specific local problem that was addressed, along with the intended improvement or innovation; the specific aim of the intervention; who (champions, supporters) and what (events, observations) triggered the decision to make a change, and primary improvement-related question and any secondary questions the intervention sought to answer.

Methods

The methods section should outline the plans for implementing essential aspects of the study design, how the intervention was implemented and how tests of change were used to modify it, as well as the study design (for example, observational, quasi-experimental, experimental) chosen to measure the impact of the intervention on primary and secondary outcomes. It should also describe ethical aspects of implementing and studying the improvement, such as privacy concerns, protection of participants’ physical well-being and potential author conflicts of interest and how ethical concerns were addressed.

Results

The results section should describe the actual course of the intervention (eg, sequence of steps, events or phases; type and number of participants at key points), present data on changes observed in measures of patient outcome (eg, morbidity, mortality, function, patient/staff satisfaction, service utilization, cost, care disparities), and discuss the benefits, harms, unexpected results, problems, failures and present evidence regarding the strength of association between observed changes and intervention components and contextual factors.

Discussion

The discussion section should highlight the study’s strengths; compare and contrast study results with relevant findings of others, consider possible sources of confounding, bias, or

imprecision in design, measurement, and analysis that might have affected study outcomes (internal validity), and explore factors that could affect generalizability. It also should consider the overall practical usefulness of the intervention and suggest implications of this report for further studies of improvement interventions.

For additional information see Davidoff F, Batalden P, Stevens D, et al. Publication guidelines for quality improvement in health care: evolution of the SQUIRE project. *Qual Saf Health* 2008;17(Suppl 1):i3–i9.

Format for Systematic Reviews

Manuscripts for Systematic Reviews should include the following sections:

- Title page
- Abstract
- Objectives
- Methods
- Results
- Conclusions

Title page

The title page should list the title of the article. The full names, institutional addresses, and e-mail addresses for all authors must be included on the title page. The corresponding author should be indicated.

Abstract

The abstract of the manuscript should not exceed 300 words and should be structured into separate sections: Background, the context and purpose of the study; Methods, how the study was performed and statistical tests used; Results, the main findings; Conclusions, brief summary and potential implications.

Objectives

The objectives should summarize the reasons for the review, and the strengths and weaknesses of the existing literature.

Methods

These sections should describe study selection (search strategy, type of intervention/exposure, types of studies included, types of outcomes, types of participants); data extraction and synthesis (statistical techniques and use of a quality assessment tool, if any).

Results

The results section should discuss the key characteristics of the included studies and the main outcome measures as well as discuss variation within and between studies.

Conclusions

The conclusions section should compare the findings to existing knowledge; outline the limitations of the review, and summarize the key findings and the implications for resident and fellow education and/or clinical practice in settings where learners participate in care.

7. Errata

Notice of errors inadvertently introduced into a manuscript during the publication process will be published in subsequent issues under the heading "Errata." Corrections authors wish to make will be considered on a case-by-case basis and may be considered more appropriate for a Letter to the Editor or other format. Corrected citations will be included with the errata notices.

8. Publication Embargo

The Journal's publication embargo period begins when manuscripts are submitted and ends with the date of publication. Authors should discuss any media or publicity plans with the Journal's staff to coordinate publicity efforts and ensure the process adheres to the Journal's publication policies. Please contact Kavitha Reinhold (kreinhold@acgme.org or 312/755-7485) with questions.