How to get your paper published
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Publication of the results of an original scientific study entails producing a manuscript with content that reflects a well-designed, well-executed research question. It is a well-written description of the process, the results, and the wide implications. Publication also depends on one’s ability to choose the most appropriate journal—the one with the best match in emphasis between the other articles in the journal and the one being submitted.

Selecting the appropriate journal

Most investigators are eager to have their work published, and choosing the most appropriate journal for submission is a critical step in the process. Although there is no “standard approach,” the choice of journal in many instances should precede writing the manuscript. Each journal has a set of instructions for authors concerning the topics suitable for that journal and the types of papers that may be submitted, such as original articles, reviews, and brief communications. Although it seems as if the choice of journal should be last, we believe it should be first.

The process begins with careful consideration of the subject matter. There must be a match between the emphasis of other articles in the journal and the one being submitted. How much does the article emphasize basic science or clinical science? Is the approach taken usually organ specific, tissue specific, system oriented, technique driven, observational, or experimental?

Who is likely to read the article? Are they whom your article is likely to interest? Choose the appropriate specialty and approach to that specialty. Readers of a cardiology journal are more likely to be interested in results from cohorts of patients than in surgical technique. Some journals are more focused on a local or regional audience than on an international audience. An article with strong epidemiologic interest may be less well received if it is sent to a journal in a country where that particular problem is of little concern.

There are many journals, and the review process varies greatly from one to another. (The process for The Journal of Thoracic and Cardiovascular Surgery is described in greater detail later). You may want to have colleagues objectively assess your work and provide advice and criticism of its relative importance in relation to articles generally published in the same field. If your priority is early publication, it is important to choose a journal with rapid review and publication cycles. On the other hand, the work may be of great and possibly enduring importance and involve complex investigations that require rigorous review to ensure universal acceptance of the conclusions made by the authors.

Instructions to authors can pose limitations that influence the choice of journal. A complex study with abundant data and figures simply may not be condensed enough to meet space limitations. Color photomicrographs may be critical to understanding the experimental data but may not be allowed by a particular journal. The work may be such that it is enhanced by a journal that allows an electronic link to a website that allows review of a video.

Prolific authors generate many articles of varying quality, importance, style, and emphasis over the course of their careers. The strength of having many excellent peer-reviewed journals is the opportunity for publication of a broad range of articles, each ideally matched to the particular style and nuance of that journal. Many authors have “favorite” journals to which they direct their “best” work but use many journals to communicate their experimental methods and findings. Deciding which journal to use is critical in the strategy for having a manuscript published.

Writing and assembling the manuscript

Once you have decided where to submit your work, you need to consider the myriad details that go into writing, assembling, and sending your manuscript. An extremely helpful resource for anyone writing a scientific paper is the “Uniform Requirements for Manuscripts Submitted to
Biomedical Journals” (UR)(available online at http://www.acponline.org/journals/annals/01jan97/unifreqr.htm) or in reprint form (American College of Physicians Customer Service Department, phone 800-523-1546, ext 2600; fax 215-351-2799). Written initially in 1979 by a small group of medical journal editors, UR provides instructions to authors on how to prepare manuscripts for submission to participating medical journals, which now number in the thousands. Editors of participating journals do not refuse because of style manuscripts prepared according to UR criteria.

The most recent version of UR covers issues to consider before submitting a manuscript, such as redundant or duplicate publication, acceptable secondary publication, and protection of patients’ rights to privacy. It provides detailed guidelines for preparation and submission of manuscripts and statements on the following issues of relevance to authors and publishers:

- Definition of a peer-reviewed journal
- Editorial freedom and integrity
- Conflict of interest
- Project-specific industry support for research
- Corrections, retraction, and expressions of concern about research findings
- Confidentiality
- Medical journals and the popular media
- Advertising
- The role of the correspondence column
- Competing manuscripts based on the same study

Authors writing an article are responsible for being clear, consistent, and correct. Busy readers balk at having to wind their way through a maze of complicated prose, inconsistent thoughts, and incorrect analysis. Although many pairs of eyes see each manuscript, from the journal editor to the copy editor, no one knows the subject matter more intimately than does the author. The correctness of the information is the author’s responsibility.

An author preparing a comprehensive manuscript is responsible for the elements in the following summary. The topics are discussed in depth in the resources listed in Selected Readings.

1. **Title and abstract.** Considerable thought should go into the title and abstract because they provide reviewers and readers with their first impression of a paper. They are the first elements read by reviewers; they are often the only parts of a manuscript accessible electronically (via MEDLINE), and they are the first, and possibly only, elements read by readers. The title should be concise but informative; it can be either a declarative or an interrogative statement. The initial words should represent the most important aspect of the article, followed by other terms in descending order of importance. The abstract may be structured (not more than 250 words) or unstructured (not more than 150 words), depending on the type of article and specific journal requirements. The abstract should explain the objective of the study and what was done, found, and concluded.

2. **Text.** Medical journal articles have the following predictable pattern:

- **Introduction:** a description of the general problem followed by a statement of the specific problem and the motivation for the study
- **Methods:** what was done
- **Results:** what was learned
- **Discussion:** how the results fit into the larger picture, the limitations of the study, and comments on “what next?”

3. **Figures.** Clear, succinct graphs, charts, photographs, and drawings can quickly convey the primary findings of research. This is greatly appreciated by busy physicians and scientists. Check with the journal to which you are submitting your article to determine the specific technical requirements, especially for online submission. The following are guidelines:

- Submit photographic prints, laser-quality prints, or electronic files. When submitting electronic files, use graphics software (eg, Photoshop, Illustrator, Freehand). Do not use presentation software (eg, PowerPoint, CorelDraw, Harvard Graphics) or word-processing software (Microsoft Word; WordPerfect) for illustrations.
- Avoid direct juxtaposition of patterned bars in bar graphs; this can cause a moiré, or shimmering, effect, which is jarring to the reader.
- Avoid the use of gray filler in bar graphs because gray does not reproduce well.
- Minimize the use of black.
- Identify figures on the back with a soft pencil (ballpoint pens cause indentations on the surface of the photograph that are difficult to hide during reproduction. Include author’s name, the figure number, and the word top.
- Avoid the use of paperclips with photographs. Paperclips cause surface indentations.

4. **Tables.** Tables should be self-explanatory and self-contained. Textual description should summarize and highlight table content. Tables can be used to display precise numeric values (figures are better for conveying trends or proportions), to present a large number of
numeric values in compact form, to summarize information, to explain variables, and to present the wording of survey questions, to name a few options.

5. Permission. To avoid breaking copyright laws, the author needs to obtain permission to reproduce material from a copyrighted source. For example, to reproduce a figure, table, or a large amount of text, the writer must obtain permission from the original copyright holder, cite the original source, and include the required credit line. An author citing another author’s data or original idea should name the original source. If a copyright holder charges a fee to reproduce the material, the author usually is responsible for paying the fee.

6. References. The author is responsible for the correctness and completeness of all citations. According to UR, references are numbered in order of first mention. The textual reference should be Arabic numbers in parentheses. It is always best to limit references to the most pertinent. An excessive number of references frequently leads to a request from the journal editor to cut entries from and renumber the list, which can be tedious. Personal communications should be cited in the text only, not in the list of references, and should include the name of the person and the date of the communication. The author should obtain written permission and confirmation of accuracy from the source of the personal communication. The sources cited in Selected Readings contain extensive sections on how to cite references.

The review process

Once a manuscript arrives in the editorial office, it begins its journey through peer review. The following are the procedures of the Journal of Thoracic and Cardiovascular Surgery. We believe our process is rigorous, ensures quality, and provides authors with information that enhances current and future manuscripts.

When an article is received, an associate editor assigns at least three reviewers known to be experts in the subject of the study. Each reviewer receives the entire article, including the text, legends, figures, and tables. The editorial office checks adherence to the requirements of the journal’s instructions to authors. Each reviewer is asked to read the manuscript in detail and to comment on it paying particular attention to the following:

- Importance of the hypothesis
- Reliability of the results
- Appropriateness of the methods
- Validity of the statistics used
- Relevance of the discussion
- Reasonableness of the conclusions
- Clarity of the abstract
- Length of the article
- Relevance of the work in general
- Priority the work should receive for publication

In some instances the reviewer may recommend professional statistical review, raise ethical concerns, or question duplicate publication by the authors. The reviewers are particularly sensitive to failure of authors to disclose relationships with industry or the use of industrial support for investigative work. The author must make industrial relationships clear in the disclosure form provided.

The reviewer recommends acceptance without change, need for revision with subsequent review, need for revision without additional review, or rejection. The reviewer writes comments for transmission to the authors and comments for transmission to the editor. When all reviews are completed, the editor studies the manuscript and the reviews. Consultation with the subspecialty-specific associate editor frequently is needed. A joint decision is reached, and the information is transmitted to the authors. This process ideally takes about 1 month. Reality occasionally falls short of the ideal, however, given the many conflicting demands on the reviewer’s time. If revision is requested, the authors are asked to respond within 2 weeks. The process goes on from there, resulting in acceptance or rejection. We use mail and fax for this process. Conversion to a Web-based electronic method should be complete within the next year. This eventually will shorten the review period.

Revision is critical and is the greatest source of delay in publication. Providing revised manuscripts to reviewers and editors while the work is fresh in the author’s mind is of great benefit. Authors should respond in a clearly identifiable manner. The revised manuscript should be marked to show every addition and deletion so there is never a need for the reviewer to revert to the original manuscript. A cover letter should address every suggestion the reviewers have made and identify each change made or defend why a change was not made. Above all, authors should recognize that the goal of the reviewer is to enhance the quality of the manuscript and the journal. They should not take reviewers’ comments personally.

Authors have rights and responsibilities that can augment the likelihood of publication of their work. Sometimes there is keen competition between investigative groups, and reviews may reflect that competition as much as they do critical assessment of the manuscript. An author can influence this process by
suggesting to the editor, at the time of manuscript submission, that certain persons not be used as reviewers. Most editors respect such requests. Authors of work with a narrow focus may help review by suggesting the names of several possible reviewers. Editors usually honor such a request for at least one of the reviewers, if the person is not related to the author.

**Publication**

Once a manuscript is written, reviewed, and accepted for publication, it is sent to the publisher. The publisher’s responsibility is to copy edit, lay out, print, bind, and mail the journal. The copy editor reads the manuscript line for line, editing for grammar, journal-specific style, clarity of language, and completeness. The copy editor ensures that the manuscript adheres to the journal’s instructions and that the author has not forgotten to include materials such as tables and figures. The publisher sends proofs, and usually an order blank for reprints, to the author and asks that the materials be returned in 24 to 48 hours. Some journals send manuscripts to the publisher as soon as the article is accepted. In this case, the manuscript is typeset immediately and placed in a queue for publication. Depending on the backlog of articles, publication occurs months after the author sees the proofs. An alternative is to assign the article to a specific issue and typeset the manuscript for that issue. The article appears in print soon after the author returns the proofs.

For society journals such as ours, the relationship with the publisher can enhance the role and profitability of the journal. Because of its extensive resources and distribution networks, the publisher works with the society to market the journal to new subscribers, to sell advertising, and to develop new initiatives, such as publishing the journal online. The publisher also produces reprints, and to develop new initiatives, such as publishing the journal online. The publisher produces reprints, to the author and asks that the materials be returned in 24 to 48 hours. Some journals send manuscripts to the publisher as soon as the article is accepted. In this case, the manuscript is typeset immediately and placed in a queue for publication. Depending on the backlog of articles, publication occurs months after the author sees the proofs. An alternative is to assign the article to a specific issue and typeset the manuscript for that issue. The article appears in print soon after the author returns the proofs.

Address for reprints: Pamela W. Fried, Managing Editor, The Journal of Thoracic and Cardiovascular Surgery, MCP Hahnemann University, 245 North 15th St, Mail Stop 496, Philadelphia, PA 19102-1192.

**SELECTED READINGS**

**Ethical Issues**


**Peer Review**


**Manuscript Preparation**

3. Huth EJ. How to write and publish papers in the medical sciences. 2nd ed. Baltimore: Williams & Wilkins; 1990.
4. Instructions to Authors in the Health Sciences (available online at: http://www.mco.edu/lib/instr/fininsta.html). Links to websites that provide instructions to authors for more than 3000 journals in the health and life sciences. All links are to primary sources, that is, to publishers or organizations with editorial responsibilities for the titles.
10. World Association of Medical Editors (available online at http://www.wame.org). Extensive list of references and other websites related to publication issues.

**Statistics, Study Design**

How to get your paper published
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