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Getting Your Writing Published

You have had a great idea for a review article, case report, editorial, or letter to the editor. Maybe you did a clinical research project. You developed the concept—how you would handle the idea. You have written the paper, revised it at least three times (see Chapter 3), and had it critiqued by your harshest reviewer colleague before preparing the final draft. In short, you have been able to write it up. These are all important steps; the next is getting your work in print. Notice that I say, “Next step,” which I will explain at the end of the chapter.

What follows are hints as to how to get your work published. The advice is general, and applies to all the publication models discussed in the book, not only to research reports.

Fundamentally, publication follows an invitation by an editor that is accepted by the author. Of course, there will be peer review, editing changes, and sometimes a major revision. But, following negotiated changes, author and editor must both say, “Yes.” And it is a good idea to achieve the consensual affirmative as soon as possible, because the material in a medical article is going out of date as the ink dries on the manuscript page.

In fact, you and the journal editor have consistent goals. You, as author, want your work in print as soon as possible. The editor needs high-quality articles for publication, in most cases each month. You and the editor need one another. As King¹ writes, “Authors and publishers thus live in symbiosis. The unpublished manuscript accomplishes nothing for its author, and a journal without manuscripts speedily dies.”

PLANNING YOUR ARTICLE SUBMISSION

Submitting Your Article to the Right Journal

Planning the journal for first submission is an important step that should begin as you conceptualize the paper, as discussed

in Chapter 1. In many cases, you will call or send an e-mail query to the editor to see whether there is some interest in the topic. This publication then becomes your “target journal.”

Pay attention to how often the journal publishes papers in your topic area. What topics are generally presented in the journal? If you have a paper on a general medical topic, such as irritable bowel syndrome, depression, or chest pain, your range of possibilities is wide. If your paper describes a urologic surgical procedure or a method of teaching psychologic assessment of the geriatric patient, your choices are much more limited.

Sometimes you will sense an unmet need. If your research shows that the *Annals of Internal Medicine* has published no articles on gynecologic topics over the past few years, that finding can mean one of two things: either the journal editor considers gynecologic articles outside the scope of the journal, or the editor is eagerly awaiting a submission in this area, and will welcome your paper on current therapy of vaginitis.

In selecting your target journal, consider the following factors:

The Variety of Article Formats

Some journals accept almost no articles that are not research reports. Others limit themselves to review articles. Some publish case reports; other journals never do so. In some journals you will find invited editorials—that is, written by persons who are not the editor of the journal. In other journals, only the editor writes the editorials. Here are two ways to check on the variety of article formats published: review several recent issues of the journal, which is also helpful in determining the scope of topics, the writing style, and what authors are publishing in the journal; review the instructions for authors, which will probably describe the types of article published, with some guidelines for the preparation of each.

The Journal's Impact Factor

For the author submitting a research report, the impact factor becomes a two-edged sword. On one hand, the impact factor of the journal has been found to be “more important than any other variable, suggesting that the journal in which a study is

published may be as important as traditional measures of study quality in ensuring dissemination.”² This means that study methods and design did not predict the frequency of citations for a study or the prestige of the citing journals. Simply stated, the key factor in having your work widely cited is the journal in which it is published. For a fuller discussion of the journal impact factor and how it is determined, go to Chapter 5.

On the other hand, and this is why I bring up the impact factor again, a journal’s high impact factor can reduce your chances of acceptance. Every writer knows about the importance of where one’s work is published, even if few know how to calculate the impact factor. The most prestigious journals receive huge numbers of submissions. The most submissions of all are likely to go the major broad-based journals, with acceptance rates often below 10%.

Aiming High: The Controversy

Some investigators submit their papers first to one of the most prestigious journals. Of course there is a slim chance of acceptance, but the authors know this is very unlikely. What they seek is a critical review of the paper by experts. In recommending rejection, the peer reviewers will identify the weaknesses of the paper. This allows the author to fix the problems before submitting the paper to what was always the target journal.

One disadvantage to such a practice is that it delays publication. The turnaround time in peer review and editorial decision making is measured in months. For a paper that has very timely data, this delay may actually work against publication.

The larger question is the ethical issue of seeking what is really a free consultation on your paper, when you know that your chances of acceptance approach zero. Yet one goal of volunteer peer reviewers must be to help investigators and authors prepare the best papers possible.

Working with Journal Editors

Working with editors means recognizing and respecting what they want from you. Norton,³ an assistant editor of the

Journal of the American Academy of Dermatology, writes, “I would be proud if every article published in the *Journal* were novel, interesting and important—in other words, if every article were both readable and worth reading. (I’d also like it if every article were eloquent, funny, and short.) The Editors would love to receive manuscripts that are perfect when first submitted, but these papers probably don’t exist. The peer review system is intended to select the most worthwhile papers and nudge them along toward that elusive perfection.”

“Read the instructions, Grandpa.” This is my 5-year-old granddaughter’s directive when mixing ingredients to make pancakes, starting a board game, or trying to operate a new electronic gadget. My granddaughter is on the right track. *Journal* editors earnestly wish that more authors would actually read—and follow—the instructions for authors. Failure to do so results in extra work for both editor and author. It can cause delays, as the manuscript is returned for the missing pieces. Sometimes failure to follow directions can result in summary rejection (see below), simply because it was egregiously nonconforming.

Good Manuscripts and Bad: What Editors Think

Here is what one editor thinks about good and bad articles:

Wonderful articles are alike in so many ways. They have a concise introduction that proposes a testable hypothesis, a methods section with a good study design, a results section in which the statistical analysis addresses clinical relevance as well as statistical significance, and a discussion in which points are made succinctly and are based on evidence, not conjecture. In wonderful articles, the prose is clear, fluent, and direct. On the other hand, unhappy articles are often uniquely bad, each with its particular combination of distinctive flaws.³

In an insightful, but humorous editorial in *JAMA*, Grouse⁴ identifies a “rogue’s gallery of medical manuscripts.” The following describes a few of the perpetrators.

The Clone

The clone is born as a researcher attempts to publish two or more papers based on data in a single study. The act of submitting clone articles is sometimes called fractionated publication, salami science, or duplicate publication. Von Elm et al⁵ reviewed 56 systematic literature reviews that included 1131 main articles. They report, "Sixty articles were published twice, 13 three times, 3 four times, and 2 five times."

Academic institutions must bear some responsibility for this behavior, as educators carefully count the number of publications at promotion time. Journals contribute to the problem with a reluctance to publish long research reports. Nevertheless, the clone uses valuable journal space in presenting background material, methodology and often-similar conclusions in several papers.

The Chain Letter

The chain letter is a variation on the clone. In a chain letter, a research group lets each member be first author by submitting an ongoing series of papers that present just a little more data from an ongoing study plus a great deal of previously published results. Each version of the chain letter varies in the list of authors and in the title of the article.

The Attention Grabber

In this manuscript the authors may have conducted perfectly good research, but they postulate conclusions that go beyond their data. In many cases, the discussion offers hope in the diagnosis or treatment of disease that is sure to be reported in the media. The worst case is when the authors release their findings to the media just as their scientific article goes to press.

The Shell Game

Simply stated, a shell game occurs when an author submits the identical paper to more than one journal at a time. Playing the shell game is risky and some say unethical. The player "wins" when one journal accepts the paper, and it is rejected by all the others. The player loses when two or more journals

accept the article, and all but one must be told (or learn) of the ruse. The shell game wastes editors' time. It can make for duplicate publication if the author doesn't withdraw the paper from all but one publication. Journal editors hate shell game players.

The Sneak Attack

In his paper, the author launches a missile aimed at a colleague in the field. The Background or Discussion section of the paper contains a cleverly crafted criticism of the colleague's work, perhaps including an attack on the individual.

The Zombie

This describes a manuscript that never dies. When a journal rejects an article in no uncertain terms, it means that the editor does not want to see the manuscript again. The author's job is to make any needed changes, and then submit the article elsewhere. Do not let your manuscript become a zombie by resubmitting it without an invitation to do so.

TECHNICAL REQUIREMENTS FOR PUBLICATION

By now you have selected the best journal for first submission, contacted the editor or decided why you should not do so, and made sure your manuscript will not end up in the "rogue's gallery." It is time to take care of the last technical details of manuscript submission.

Submission Letter

The first item in your packet will be a submission letter, which should accompany every manuscript from research report to letter to the editor. Also sometimes called the "cover letter," the submission letter provides information about your paper and about you as the author. The letter should be addressed to the journal editor, by name. Identify the title of the paper just before the salutation in the letter. Table 10.1 describes the contents of a comprehensive submission letter.

TABLE 10.1. Contents of cover letter accompanying an article manuscript submitted to a medical journal

Letter item	What to include
Introductory paragraph	Identify the accompanying manuscript and indicate that you are submitting it to be considered for publication. In some instances, you should identify the type of paper you are submitting, e.g., report of original research, brief report, case report, or other format.
Word count	Cite the number of words in the manuscript. Your word processing program will give you the needed number.
Specific author contributions	Many journals ask that you describe each author's specific contribution to the research and writing. For example, did an author recruit the subjects, collect data, provide statistical analysis, or edit the manuscript?
Contact author	Identify the one author who will respond to correspondence and who can answer questions about the study. Provide full contact information.
Copyright relinquishment	Most journals insist that the cover letter relinquish copyright if the article is published. See the journal's instructions to authors to determine if this is needed in the letter and, if so, to note the exact wording to be used.
Conflict of interest disclosure	Describe any industry sponsorship of the study, contractual agreements with industry, consulting or speaking agreements, or even stock ownership if there might be a perceived conflict of interest.
Author approval	State that the manuscript has been read and approved by all the authors, that the requirements for authorship have been met, and that each author believes that the manuscript represents honest work. ⁶
Duplicate submission or publication	State that the contents of the paper have not been published previously and that the manuscript has not been submitted elsewhere. State if an abstract has been presented at a scientific meeting.
Special requests	Try to avoid special requests. However, in the case of cutting-edge scientific research, there may be a valid reason for requesting that a certain individual not be used as a peer reviewer.
Thank you	Thank the editor for considering your manuscript for publication.
Signatures	All authors should sign the submission letter.
Enclosures	Be sure to send the requested number of manuscript copies, and also any required compact disk or other materials. Consider sending a copy of your one-page, abbreviated curriculum vitae.

Title Page

The title page gives important data about the paper and the authors. The title page should include the following items, which are consistent with the recommendations of the International Committee of Medical Journal Editors⁶ and the instructions for submission to the *New England Journal of Medicine*:⁷

- The article's title: be descriptive but concise
- Each author's name, academic degree(s), and institutional affiliation
- The name of the department(s) and institution(s) where the work was done
- Disclaimers, if any are appropriate
- The corresponding author's name and full contact information
- The name and address of the person to whom reprint requests should be addressed, or a statement that no reprints will be available
- Sources of support, such as grants
- A running head (a short version of the title) that will appear on each manuscript page

Literature Review Update

Just before submitting the manuscript, repeat your literature review. Important papers may have touched on your topic since you did your original literature search. Be sure that there has been no "breakthrough" study that should be included in your article. Assure yourself also that no one has recently published a paper just like yours. Having someone beat you to publication on a topic should not discourage you from submitting, but you should know that the game has changed.

What to Submit and in What Order

When you finally have collected all the pieces, it is time to assemble your submission packet. Unless specifically

instructed otherwise, assemble your packet of materials as follows:

- Submission letter
- Title page
- Abstract
- Key words
- Body of the text
- Acknowledgments
- References
- Tables with legends, each on a separate page
- Figures with legends, each on a separate page

If requested, include a computer diskette or compact disk.

The journal will almost certainly request an original and several copies of manuscripts. Check the instructions to authors if you are submitting artwork. Will it be acceptable to submit one original and several copies of a figure, or will you need multiple copies of original art or photographs?

When you are all ready to place your work in an envelope, review the checklist in Table 10.2 to help assure that you are not forgetting anything.

TABLE 10.2. Manuscript checklist for journal article or book chapter submission

<input type="checkbox"/>	Double-space the entire manuscript, including references.
<input type="checkbox"/>	Use 12-point font unless the instructions specify otherwise.
<input type="checkbox"/>	Leave the right margin of the manuscript unjustified (i.e., ragged).
<input type="checkbox"/>	Identify all abbreviations when first used in the text.
<input type="checkbox"/>	Use nonproprietary names of drugs.
<input type="checkbox"/>	Check all references for accuracy and completeness.
<input type="checkbox"/>	Confirm that all references are cited in the text.
<input type="checkbox"/>	Be sure you have disclosed any possible conflict of interest.
<input type="checkbox"/>	For all borrowed materials, send a consent form signed by the copyright holder.
<input type="checkbox"/>	Include informed consent to use images that may identify human subjects.
<input type="checkbox"/>	Submit the requested number of copies of the manuscript, tables, and figures.
<input type="checkbox"/>	If submitting by e-mail, include text, tables, and figures in a single file, if possible.
<input type="checkbox"/>	Keep a copy of everything, which will be used later to check proofs.

Packing and Mailing Tips

Pack your manuscript as you would a family heirloom. You have put a lot of work into the article. Don't risk a problem at this stage. More manuscripts than you might imagine are damaged, delayed, or lost in the mail.

Do not staple anything related to the manuscript. The publisher may want to make photocopies for files, and staples jam photocopiers. Also, be careful with paper clips, which can damage artwork and photographs. If you must use paper clips, use large ones that cause less damage. Never write on the back of a photograph; identify the figure by writing on an adhesive label, and then apply the label to the back of the photo.

Computer diskettes and compact disks should be sent in special padded containers or between sheets of heavy cardboard.

All artwork should be 8½ by 11 inches in size or smaller, unless you have a special agreement with the editor. Large artwork is difficult to ship and to handle in the office.

I like to enclose a self-addressed, stamped postcard for the editorial staff member to return to me, letting me know that my package has arrived.

Finally, be sure to keep a paper copy of your entire manuscript, even if everything is on your hard drive. I know an author whose manuscript was only on his computer; he had no paper copy. You can guess the rest of the story. Luckily, the submitted manuscript was returned after review, and he was able to scan everything to his computer. Then he kept a printed copy.

Some Mistakes Made in Submitting Manuscripts

The discussion above will help you avoid most manuscript submission errors. Here are some additional topics.

Relying on Your Spell Checker

Your Microsoft Word spelling and grammar utility is excellent, but it will not detect all errors. For example, type in the following:

Eye no hat correct spelling is important, and sew I was care full to us the spell checker.

My Microsoft spell checker accepted this sentence as correct.

Touting Your Paper

Do not use your submission letter to tell the editor that yours is a very important paper. Editors look at many papers, and can recognize those that are important, especially with the advice of peer reviewers. Your paper is not a used car to be “sold,” claiming to report the greatest advance since Wilhelm Conrad Röntgen took a snapshot of his wife’s hand in 1895.

Seeking Perfection

Earlier in this chapter, I quoted Norton about the quest for “elusive perfection.” In fact, your paper will never be perfect, either as to content or manuscript preparation. In writing fact, conclusions, and opinion, do not undertake multiple, but trivial, revisions. At some time you must say, as all writers and artists must eventually do, that this is as good as I can reasonably make it, and I am going to declare it done.

As to making the manuscript perfect, let me quote from the instructions to authors of the journal *Academic Medicine*:⁸ “The editors will make reasonable allowance for minor deviations from these technical specifications so long as they do not interfere with reading, reviewing, or editing the manuscript. Major deviations, however, may lead the editors to require corrections before the manuscript is processed.” The point is that you should do your very best when writing a paper. However, do not fret about whether the terminal page numbers in references should be written in full or abbreviated. Such “minor deviations” will not cause rejection, and perseveration over trivia can only interfere with your writing success.

THE REVIEW PROCESS

Your paper has been received by the journal and has been sent for review. Your article was not summarily rejected, sent back immediately by the editor as being “not appropriate for consideration by the journal.” That would have meant that the editor believed the work to be outside the journal’s field or that it is libelous, blasphemous, or totally irrational.⁹ You have

passed the first hurdle. Things are now in the hands of the peer reviewers.

Peer Review

The Role and Duties of the Peer Reviewer

The journal editor considers the peer reviewers who will review your paper to be familiar with your topic. Many are senior academicians and investigators. All are volunteers, and they do a lot of work for no pay. Peer reviewers, sometimes called referees, can be a very big help to you, even if your paper is ultimately rejected.

How are peer reviewers chosen? Each journal has a panel of peer reviewers who have been recruited by the editor. If you wish to be a peer reviewer, send a letter and your curriculum vitae to the journal editor and volunteer to serve. State the areas in which you have some expertise and are willing to review papers. The editor will reply, and perhaps add you to the review team. Editors want their peer reviewers to have certain traits. Peer reviewers should be knowledgeable in the topic under consideration, intellectually honest, and time-sensitive. The author and editor cannot wait 3 months for a paper to be reviewed. In reviewing reports of clinical studies, a peer reviewer should know research methodology and basic statistical analysis. In the end, the peer reviewer helps to improve the paper, making it clearer, more informative, and often shorter—even if the paper is ultimately rejected by the journal. (Remember that the paper will then be revised and submitted to the next journal on the list.) These are exactly the traits you hope for in the reviewer who evaluates your paper.

The duties of a peer reviewer can be summarized as follows:

- Accept a paper to review only if the job can be completed promptly.
- Agree to referee papers only in areas of the reviewer's expertise.
- Maintain confidentiality about the paper.
- Disclose any possible conflict of interest, and decline a review if there is any potential difficulty.
- Write a thoughtful review that is honest and free of bias.

- Aim to make the paper the best it can be, balancing criticism with suggestions for improvement.
- Avoid excessively harsh comments, especially those that could be interpreted as a personal attack on the author(s).

The peer reviewer never contacts the author directly. In most cases, but not all, the name of the author is not present on the paper being reviewed. Remember that above I stated that the author's name goes only on the title page, which is not sent to the peer reviewer. There are exceptions. The last paper I reviewed contained the names of the authors and there had been no effort to "blind" the review. Even when the names of authors and institutions are absent in blinded reviews, the peer reviewer who is working actively in the field can often tell the source of the paper based on the topic, methods, and even writing style.

I think of the roles of a peer reviewer and a practicing clinician as similar. Both are expected to exhibit ethical behavior and to be committed to providing high-quality service. Both the reviewer and clinician should be knowledgeable, capable, and thorough in what they do. Both have the ability to examine details while keeping a broad perspective. Both are reliable and trustworthy, and believe that they serve a worthy purpose.

The Role and Duties of the Editor

The editor makes the final decision about acceptance or rejection of an article. Of course, an editor's decision is based strongly on the recommendations of the peer reviewers. Although it is significant that most papers seem to go to three reviewers, not two or four, the final decision is not a "vote." Editors are paid to make judgments, and they do so.

Editors, like peer reviewers, must be honest, ethical, unbiased, responsible, and detail-oriented. They must also be literate, knowledgeable, and compulsive as to deadlines. After all, most journals must be published every month, some more often.

The editor serves as the buffer between the author and the peer reviewers. As such the editor must be able to deal with authors who are disappointed or angry. In other cases, the

problem is tardy or careless authors. A good editor can handle all these problems with tact and grace.

What Actually Happens

Here is a quick summary of what occurs when you submit a paper. Your article is logged in the system and probably given an identification number. You should be sent a notification that your package has been received.

Next the editor or assistant editor reviews the article quickly to see whether it merits peer review. As discussed above, articles with topics outside the journal's scope or those that are carelessly prepared will be immediately rejected and returned to the author.

Those that survive the initial screen are sent to referees for peer review. Each referee prepares an evaluation. Most evaluations have two parts; one part is for the editor's eyes only, and one part is sent to you, the author. The part sent to you can be quite valuable or not, as discussed below.

When all reviews are received, the editor makes a decision and lets you know the outcome of the process. If you have not heard about a decision in a reasonable time, let's say 8 weeks from the time of submission, it is a good idea to contact the journal. For example, your paper may be collecting dust while the assistant awaits receipt of a third review, due from a referee who has left for a 4-month trek in Nepal. Some journals offer a way to keep track of the process. For example, the NEJM provides PaperTRAIL as a Web site to allow "an author to obtain a rapid, confidential update on his or her manuscript."¹⁰

Possible Responses from the Journal Editor

The journal editor's decision will come as a letter that indicates one of the following: rejection, revision, or acceptance.

Rejection Letter

Was it a coincidence that, on the evening before I sat down to write this section of the chapter, our local newspaper carried a Peanuts cartoon about rejection? (*The Oregonian*, March 5,

2004). Snoopy opened the mailbox to find a letter that said, “Dear Contributor. We are returning your dumb story. Note that we have not included our return address. We have moved to a new office, and we don’t want you to know where we are.”

The rejection letter is the one you really don’t want to receive. The editor will probably avoid the word “reject,” and instead will euphemistically characterize your paper as “unacceptable” or state that it “does not meet the journal’s needs.” Basically the editor is saying that, after careful review, your paper will not be published in their journal. Furthermore, he or she believes that it cannot be revised or improved to make it publishable. The editor does not want to see your paper again.

Unless you have had the bad luck to compete with an article in press that is very similar to yours, the rejection will be attributed chiefly to the evaluations of the referees. These comments will usually be sent to you, and you should read them very carefully. The decision to reject will be based on one or more of the reasons listed in Table 10.3.

Your first reaction will be denial. Could this editor really have rejected my paper? Could there be a mistake? Maybe this rejection slip was meant for someone else. Then you read the reviewer comments and become annoyed, actually furious. How could they miss the point of my paper? Did the referees read the paper at all?

Next you settle down and consider appealing the decision. Should you request reconsideration? Actually, this sometimes

TABLE 10.3. Classic causes of article rejection

Unimportant topic
Outdated information
Inadequate literature review
Faulty scientific method
Conclusions that are inconsistent with the data
Poor structure to the article
Poor writing
Suspected bias, plagiarism, duplicate publication, inappropriate criticism of colleagues and their work, or other ethical concerns

works. Whimster⁹ estimates success “in perhaps 15% of cases.” Your appeal must be rational and civilized. Describing the referees as troglodytes will not help you. A reasonable appeal letter should politely refute the reviewers’ criticisms point by point, citing evidence. Show how your paper will be especially important to the journal’s readers and how this point may have been overlooked. Indicate any recent publications that validate your findings and conclusions. Type your brief, let it sit for a day or two to cool off, and then revise to expunge any hint of anger. Then mail the appeal letter, and prepare to be rejected again.

Then sadness sets in. Maybe I am not cut out to be a medical writer. Perhaps I should spend my spare time working in the yard or playing golf. How could I have ever had the hubris to think that I could get my work in print?

By this time have you recognized the classical stages of bereavement—denial, anger, bargaining, depression, and acceptance—described by Elisabeth Kübler-Ross?¹¹

The final step is to accept the judgment of journal number one. At this point, you should study the comments of the reviewers and use this opportunity to improve the paper. Seek the nuggets of truth in the reviewers’ remarks. Yes, I know that at least one of the reviewers seems to have totally misunderstood the paper, and maybe there is a message there. Make the appropriate revisions and use this time to update the literature search and references, especially if a few months have passed. Then submit the paper to another journal. Do this soon to help prevent becoming discouraged. As a hint, subsequent submissions are sometimes more successful when sent to more specialized journals.

When sending the paper to another journal, be sure to send a new clean copy. The manuscript returned by the rejecting journal may have pencil marks, staple holes, or coffee stains. When preparing the second submission, read the journal’s instructions and make sure your manuscript complies with its technical requirements, which are sure to differ from those of the previous journal. Basically, the second submission should have no indication that this is not the first time the paper has left your desk.

Submitting a clean manuscript is professional, and is courteous to the editor of journal number two. There is, of course, the chance that one of the reviewers for the second journal may be the same person who was a referee for the first publication, an occurrence most likely in limited scientific fields.

I recommend that you save all rejection letters. Put them in a folder in the back of your file. Medical writers all receive many rejection letters, and the file may eventually overflow. Years from now you will read them and chuckle.

Revision Letter

This is a much better letter to receive than the rejection letter. Be aware that the revision letter, sometimes called the modification letter, can be misleading. It can begin with the cunning phrase, "I regret to inform you that your paper does not meet requirements in its present form." Oh, sadness and gloom! But read on. The next sentence may be, "However, if you make revisions as suggested by the peer reviewers, we will be pleased to reconsider your submission." Hooray! This is actually a conditional acceptance letter. If you agree with the suggestions offered by the referees, make the recommended changes and thank the reviewers in your "resubmission letter." Your resubmission letter should also indicate where changes were made and how they relate to the comments of the referees and editor.

In modifying your paper, make only the suggested changes. Do not add new data or conclusions, which can only give the editor and referees something new to criticize. Make surgical repairs and resubmit before the editor has a change of mind.

One dilemma you may face is the "revision letter" that invites you to cut your paper to 500 words for a brief report or shorten to a letter to the editor (see Chapter 7). This calls for some soul-searching, discussion with coauthors, and perhaps consultation with a trusted senior advisor. On one hand, there is virtually certain publication in a journal high on your list. On the other hand, you have to give up on full presentation of your data and conclusions. I can only recommend that your writing team struggle to a unanimous decision.

Acceptance Letter

Someday you might receive the following letter:

Dear Contributor:

The three referees and I have all read your paper.

We agree that your methods are brilliant, your results are clearly stated, and the conclusions are logical and important.

We have no suggestions to make and wish to publish the paper as submitted.

Yours truly,

The Editor

But I don't think that letter will ever come. If you submit an article to a major refereed clinical journal and it is accepted upon first submission without a single revision, let me know and I will take you to dinner the next time you are in Portland, Oregon.

Most acceptance letters follow one or more revisions. This is probably a good idea, because the revisions, based on reviewer comments, usually result in better papers in print.

Whose Papers Are Published and Why?

In the next few paragraphs, I share some of the dark secrets of medical publication, especially in regard to research reports. Tell no one what you read next!

About Peer Review

Peer review may not be the pristine process we imagine. Conflicts of interest are rampant, especially in focused research communities. There are only so many investigators who are experts on, as a fanciful example, the new vaccine against male-pattern baldness. Few people would have the expertise to review papers in this area, and all may be at different stages along the same path to a very lucrative discovery. Is it possible that the reviewer might make use of the information in the paper being reviewed? Such use would be unethical, but I am sure that it might happen.

Occasionally review decisions lack the integrity and quality we authors hope for. Strasburger¹² describes the peer-review system in medical journals: "There, one's peers may have a

decided self-interest in not seeing a particular article published, may simply not know very much about the subject, or may be inexperienced writers themselves. Reports may be criticized by someone who is an 'inferior,' rather than a 'peer.'"

Your Native Language Matters

If you speak English as your native language, you have an advantage over others around the world. A study by Coates et al¹³ found, "The acceptance rate of non-mother English tongue authors is generally a lot lower than that for native English tongue authors." The fundamental issue seems to concern language errors in manuscripts, rather than discrimination against international contributors. Consider yourself, as one who speaks English daily and other languages infrequently or not at all, being required to submit your scientific paper in Russian or Japanese languages. My manuscript would surely be full of grammatical errors. This helps explain the study findings that, in submissions to the journal *Cardiovascular Research*, "The US/UK acceptance rate of 30.4% was higher than for all other countries. The lowest acceptance rate of 9% (Italian) also had the highest error rate."¹³ Simply stated, the authors conclude that with articles of equal scientific merit, a poorly written article is more likely to be rejected.

About Authors and Affiliations

One of my all-time favorite articles was published in 1982 in *Behavioral and Brain Sciences*. Authors Peters and Ceci¹⁴ wondered about the adequacy and fairness of peer-review practices. Here is what they did: The authors selected 12 articles by researchers in highly respected United States psychology departments. Each of these articles had been published in a different, prestigious American psychology journal with high rejection rates (80%) and nonblinded peer reviewers. The authors substituted fictitious names and institutions (such as the Tri-Valley Center for Human Potential) for the original. The manuscripts, with only author names and institutions changed, were then formally resubmitted to the same journals that had peer reviewed and published them 18 to 32 months earlier.

What happened to the 12 papers? Thirty-eight editors and reviewers evaluated the altered articles; only three detected the ruse. Nine of the 12 articles were studiously reviewed, resulting in an editorial decision. In the end, eight of the nine were rejected. Sixteen of 18 referees had recommended against publication. In many cases, the referees described “serious methodological flaws.”

The authors ponder the possibility “that systematic bias was operating to produce the discrepant reviews. The most obvious candidates as sources of bias in this case would be the authors’ status and institutional affiliation.”¹⁴

In getting published, who you are, where you work, what language you speak daily, and who reviews your paper may profoundly influence whether your paper is accepted or rejected.

AFTER YOUR ARTICLE IS ACCEPTED

Finally, the acceptance letter arrives. No more worrying, and no more revisions. Your article is on its way into print. There are now three items to consider: proofreading, preventing errors, and what to do after publication.

Proofreading

Upon acceptance of your article, a copyeditor will mark it up for publication and correct errors of grammar and syntax. The copyeditor is your friend. With a degree in English literature, the copyeditor is there to help you and the editor publish the best article possible. There may be minor alterations to improve clarity and eliminate ambiguity. You may find very long sentences divided into two, and even some subheadings added in long expanses of text. The changes made will reflect standing orders from the editor about style, and should not affect meaning. You may or may not be sent the marked-up manuscript to review. If you are sent the manuscript, ignore marks you do not understand; these are there as directions for the typesetter. There will probably be questions to you as author (Au:). Answer these questions succinctly, and return the manuscript promptly. The journal probably has already reserved space in an upcoming edition.

Although you may or may not see the marked-up manuscript, you will definitely receive proofs to review. Occasionally you will be sent *galley proofs*—your manuscript set in type but not yet formatted to the journal page. Some journals always send galley proofs, while others send galleys only when they anticipate that the author will want to make some more changes.

Read every word in the proofs, making corrections in pencil—not ink. Begin by checking the page proofs against the manuscript. Has anything been omitted or jumbled? This happens. Do all the reference citations appear in the text, and do the numbers match the reference list? Pay special attention to tables and figures. If there are numbers and totals in the paper, get out your calculator to recheck math.

Prior to publication, you will receive page proofs, with your article set in type and formatted to the journal page, perhaps even with the page numbers in place. Here also there may be queries to “Au.” You must answer these questions precisely. Do not waffle or give both sides to an answer. The editor is asking you for a decision about an issue in your paper. Make the decision and state what it is.

Keep in mind that proofreading is intended to correct errors. You may be tempted to add new material during proofreading. A new study was published since your paper was submitted, or a new drug has been introduced. If you propose to add to the paper, I advise that you call the editorial office and discuss what you have in mind. Some editors will approve adding sentence or two, or perhaps a reference.

If adding a reference, ask about numbering. In many journals, the author need not renumber all 90 references when adding the 91st in proofs. Instead, go to the appropriate location in the text and in the reference list and add the new number with an “a.” Thus, if the new reference follows reference 45, the new addition will be reference 45a as a text citation and also in the reference list. This convenience saves time and cost, and avoids many typesetting errors.

There are proofreader’s marks used as shorthand to identify corrections and changes in proofs. These are found in Appendix 2.

Keep a copy of the corrected proofs. You spent valuable time and mental energy on the changes. Assume that the packet you are returning to the journal will get lost in the mail.

Good writing is hard; good proofreading is even harder. Perhaps this is because it is not creative. Proofreading can be mind-numbingly dull, and this is a danger, because it is very easy to have errors escape into print.

About Errors

Whenever I have published a book and have the first copy in my hand, I can unfailingly open the book to the exact page with a misspelled word. It may be the only one in a 1200-page book, but it seems to jump out at me. I am afraid the same will occur with this book.

The University of New South Wales has advertised for a mathematics research assistant who would work in a “3/4 research and 1/3 teaching position.” Sometimes mistakes in print are called *errata*, as though the Latin word makes them seem less serious. Errors find their way into print in many ways. Some begin with the author and some with copyediting, but I believe that most occur in typesetting. It really doesn't matter how they occur, it is the author's job to find and eliminate them with careful proofreading.

A paper on eating disorders is titled “Detection, Evaluation, and Treatment of Eating Disorders: The Role of the Primary Care Physician” (Walsh JME, Wheat ME, Freund K. *J Gen Intern Med* 2000;15(8):577–583). In the conclusion, the authors state: “Primary care *providers* (italics mine) have an important role in detecting and managing eating disorders.” Whoops. Somehow between the title and conclusion the authors moved from primary care physicians to primary care providers, the latter being a much larger and diverse group.

If you think errors won't occur, examine Figure 10.1A and B carefully. They are from an article about medical publication. Do you see the error? Hint: The lines in Fig. 10.1B are correctly labeled. Now look at the two arrows pointing to the single line and the other “arrow-less” line in Fig. 10.1A.

One hundred years ago, *The Lancet* apologized for using the words “a sour correspondent,” insisting that it should have

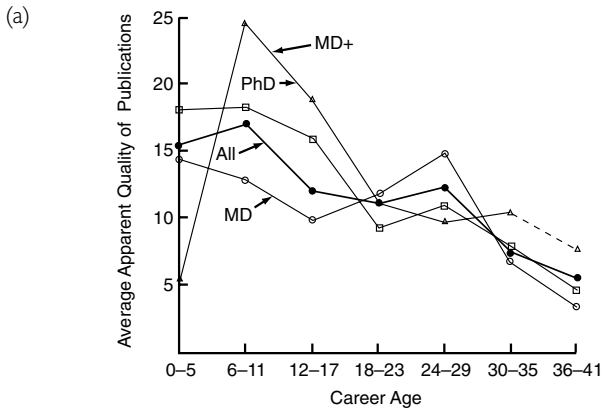


Figure 10.1A

Average apparent quality of publications versus career age for the four-year sample

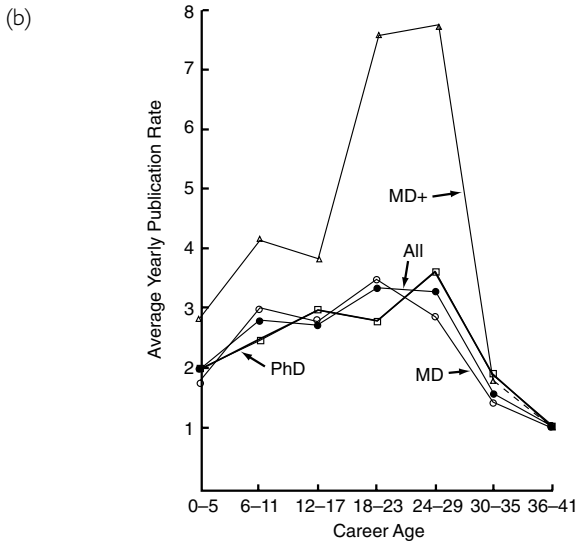


Figure 10.1B

Average yearly publication rate versus career age for faculty in the four-year sample.

The last point on the MD+ curve, career age 36 to 41 years, represents only two faculty members; therefore, the corresponding portion of the curve has been dotted.

FIGURE 10.1A, B. Figure A has an error in labeling. Figure B is correctly labeled. Can you spot the error in Figure A? (The original captions were: Fig. A, Average apparent quality of publications versus career age for the four-year sample. Fig. B, Average yearly publication rate versus career age for the four-year sample. From: Krumland RB, Gorry GA. Scientific publications of a medical school faculty. *J Med Educ* 1979;54:876-884. Used with permission.) Note to reader: The original legends have been included, to explain what the graphs are meant to show.

been “as our correspondent” (JAMA 100 Years Ago. JAMA 286;140). Today some major medical journals seem to have a monthly column correcting errors in recently published papers. Most errata are of minor significance, other than the damage to the self-esteem of the authors. Much more egregious, even dangerous, are errors involving drug doses. I recently received a copy of the 16th edition of the *Handbook of Antimicrobial Therapy* published by the Medical Letter on Drugs and Therapeutics. The handbook came with an attached warning label:

On page 130 the pediatric dosage of doxycycline (combined with quinine sulfate) for treatment of chloroquine-resistant *P. falciparum* malaria should be 2 mg/kg/d \times 7d.

On page 130 of the handbook, the dose is listed as 30 mg/kg/d \times 7d. This is much more worrisome than incorrect fractions in a job advertisement.

After Publication

Saving Your Files

Some people save empty boxes, lengths of ribbon, odd pieces of wood, and half-empty cans of paint. They will tell you, “I might use this some day.” Saving stuff is a very good idea for writers. I tend to file by project. I have a file with all the notes and quotes used for this book. If I plan to use something from this book in another project, I will make a copy for the new book or article. Items you liked, but didn’t actually use, might be just what you need for your next article or book. For example, I have an idea for a new book that will be along the same lines as this one. When I come across papers or anecdotes that may be useful, I drop them in a file, unsorted for now. My files include metaphors, similes, and examples that might support one of my pet theories. I also keep a computer file of topic ideas that may become chapter titles or section headings. Some of these items accumulate for years, and then turn out to be useful. That is how I happen to have this chapter’s reference 12 from 1985.

Reprints

Sometime during the production process, you will probably be asked whether you would like to purchase reprints of your

paper. Reprints are a time-honored tradition in scientific writing, and before the Internet were an important way in which investigators disseminated their findings.

A century ago, C. D. Spivak,¹⁵ the editor of *Medical Libraries*, reported, "There is an inborn craving in the hearts of medical men for reprints of their articles." He attributed this craving to "a psychological fact, namely, that every writer wishes to give the stamp of individuality to his work." Spivak called for authors to let medical libraries be the first claimant on reprints.

Today, reprints seem to be going out of fashion, and I don't buy them anymore. They have become expensive. Journals use them to generate income, and seem unable to sell me a reasonably small number. I receive very few requests from individuals whom I know share my scientific interests. Most requests seem to be postcards from individuals in distant lands, whom I suspect request dozens of reprints monthly. Each year more and more journals go online, and I predict that in time journal reprints, like my file of journal clippings, will become a historical curiosity.

Criticism

There is an old aphorism about medical writing: He who writes stands up to be shot at. After publication of your article, chapter, or book, some readers may write letters to the editor saying, "Great job." (In fact, such letters are unlikely to be published, because they do not generate controversy.) Some book reviewers may praise your work. The first edition of my book *Family Medicine: Principles and Practice* was reviewed in the *British Medical Journal* as "the Cecil & Loeb/Gray's Anatomy of family practice for the foreseeable future." Wow! A quarter century later, I still feel good about this review. When you and I receive such accolades, we should enjoy them—because they are the exception.

Other book reviewers and letter writers have reported that I have misspelled words, "missed the mark," and, in one instance, was an example of why no single physician should be the sole author of a medical book. I have endured my share of harsh criticism.

The *New England Journal of Medicine* published a paper on the prevention of radiocontrast-agent–induced nephropathy by hemofiltration (Marenzi G, Marana I, Lauri G, et al. The prevention of radiocontrast-agent–induced nephropathy by hemofiltration. *NEJM* 2003;349:1333–1340). A response letter was published stating, “Several key points cast doubts on the conclusions drawn by Marenzi and colleagues” (Forman JP. Letter. *NEJM* 2004;350:837).

JAMA published a paper on treating ventilator-associated pneumonia (Chastre J, Wolff M, Fagon JY, et al. Comparison of 8 vs 15 days of antibiotic therapy for ventilator-associated pneumonia in adults: a randomized trial. *JAMA* 2003;290:2588–2598). In response, a writer states, “I have some concerns about the design of this study” (Nicastri E. Letter. *JAMA* 2004;291:820).

The most serious criticism and editorial reaction I have noted recently were as follows. In 2001, the publishers of *Human Immunology* retracted an immunogenetics paper that some believed contained inappropriate content. Statements in the paper concerning culture, religion, and genetics ruffled political feathers. The journal editors deleted the article from the online edition of the journal and requested that medical librarians tear the article pages from their printed, often bound, issues of the journal.

The conclusion must be that as a medical writer you must have thick skin. All you can do is write your article or book chapter, check everything carefully, have the manuscript reviewed by a colleague, and then submit for publication. When the paper appears in print, be prepared to take the barbs, or perhaps the applause, that may come from readers and reviewers. Take pride in the fact that you have successfully navigated the review process and had your paper published, and that your critic has, in fact, been one of your readers.

BEYOND PUBLICATION

At the beginning of the chapter I mentioned that there are more steps after publication. Some of these possibilities are presented next.

Writing Teams, Support Groups, and Courses

I am a strong advocate of *writing teams* for beginning authors, especially when a research study is being planned. Writing teams pick a topic, select a leader, divide the work, and then meet regularly until the article is in print. The project becomes fun, and work moves forward because no one wants to let the group down.

The *writing support group* is composed of clinicians, and perhaps others, who are committed to improving their writing skills. There may be a group leader, or leadership may rotate. Generally one member presents his or her work, followed by criticism by others in the group. Sometimes the group uses specific writing exercises. Fundamentally these are support groups of persons who provide one another with encouragement, while allowing members to applaud one another's successes and grieve colleagues' rejections.

Grzybowski et al¹⁶ describe a writing group at a hospital in Vancouver, Canada. The group met regularly over 3 years. Fifty writing projects were discussed, and 12 of those were subsequently published in indexed journals. The seven group members who attended most frequently saw an increase in their publication rate over 3 years of more than 300%.

In an academic setting, 18 assistant professors participated in a writing and faculty development program with seven monthly 75-minute sessions. By the end of the program, all participants completed at least one scholarly manuscript.¹⁷ This activity seems to be both a writing course and a writers' support group.

Fellowships

Fellowships offer opportunities for clinicians who want to go further with their writing and editing. Here are three examples. All provide a modest stipend. If unsuccessful in reaching the e-mail address listed here, contact the journal's editorial office directly, after finding contact information using a Google search.

Morris Fishbein Fellowship in Medical Editing

Named in honor of a former editor of JAMA, this fellowship offers the opportunity to work with the journal's staff in all facets of editing and publishing a major medical journal. The fellow's work is supervised by a physician-editor, and as part of the duties, the fellow will be expected to prepare articles for publication. If interested, contact: richard_glass@jama-archives.org.

New England Journal of Medicine Editorial Fellow

This one-year position combines editorial experience with research. The fellow will participate in editorial and journal activities, but is expected to have his or her own independent projects. Applications, including a description of your research interests, should be mailed to: NEJM Editor-in-Chief, 10 Shattuck Road, Boston, MA 02115.

John C. Rose Fellowship

The *American Family Physician* (AFP) journal offers a year-long medical editing fellowship. This fellowship combines experiences in medical editing and writing with the opportunity to teach residents and medical students. Some patient care is required. The fellow works with the AFP editor, reviews manuscripts, writes items for the journal, and learns about the process of journal production. The contact address by e-mail is: siwekj@georgetown.edu.

Contests

Several journals sponsor writing contests. An example is the Creative Medical Writing Contest sponsored by the *Journal of General Internal Medicine* (JGIM). There are "prizes for the best submission in each of the categories of poetry or prose about the experience of being a patient, a patient's family member, a health-care provider, a medical researcher, or a student." The prize awards are modest, but winning submissions have a high probability of publication. If interested be sure to check with the JGIM about submission requirements. More information is available at: <http://www.sgim.org/creativemedwrite.cfm>.

The practicing clinician with writing skills and an interest in clinical issues should consider the *Medical Economics* writing contest. The 2003 grand prize was a \$6000 vacation. If interested, contact the journal Web site or write to: Outside Copy Editor, Medical Economics, 5 Paragon Drive, Montvale, NJ 07645.

Contests are announced periodically and then have deadlines. Be sure to check for up-to-date information if considering a submission.

American Medical Writers Association

The American Medical Writers Association (AMWA), with approximately 5000 members, is the leading professional organization for biomedical communicators. Membership is open to all who write, edit, or teach about writing in areas such as medical science, biotechnology, or the pharmaceutical industry.

AMWA offers continuing professional education, which includes courses and workshops. Each quarter, the organization publishes the *AMWA Journal*, a source of information and opportunities in the field of biomedical communication. Some recent article topics in the journal were “The Ethical Challenges of Explaining Science” and “Common Statistical Errors Even YOU Can Find.” If interested in learning more about AMWA, contact the organization at: amwa@amwa.org.

Self-Publication

Self-publication of an article, poem, or cartoon is easy. Just type the following at the bottom of the page: Copyright, your name, and the current year. Then print out the document, give it to a friend, and it is published. Legally no one can copy this now-published document without your permission. But this is not the topic of this section.

Many clinicians write books, and then they find that attaining publication is difficult. In fact, without an agent, it is almost impossible for the beginning writer to find a publisher for a trade book. Also, agents are busy and most won't read your book unless you are a published book author. Do you see the problem here? Clinical books, if timely and well written,

are more likely to be published but this process can also be challenging. (See Chapter 8 and my advice never to write a book without a signed contract with a publisher.)

Nevertheless, let's assume that you are a clinician who has written a book. Perhaps your book is the great medical mystery novel, your heart-felt autobiography, or *How I Learned Neurosurgery on the Internet in Five Easy Lessons*. Sadly, no publisher has recognized the value and marketing potential of your book, and the manuscript is beginning to turn a little yellow.

Then you come across the magazine advertisement that reads, "AUTHORS WANTED, Leading subsidy book publisher seeks manuscripts. Fiction, non-fiction, poetry, juvenile, religious, etc. New authors welcome" (*Smithsonian Magazine*, February 2004, p. 103).

Perhaps you are surfing the Barnes and Noble Web site and come upon their Select program, which offers a contract, assistance with publishing, a custom cover, and quick availability. Your book will be ready for sale within 90 days. For each of these services you pay a fee, and you receive one or more copies of your book.

Self-publication, called subsidy publication, is the last refuge of the desperate author. The problem is distribution. There is no publishing company with an investment in your effort out there trying hard to sell your book, and you do not have the time or resources to do so. You will have copies to give your parents and your kids. You can show your book to your friends. You will almost certainly not make money on the transaction. Your satisfaction with the process will depend on your feelings about seeing your name and your work in print.

Years ago a friend and I acquired the translation of a book written overseas. It was a medical book for the lay public. We formed a corporation called Erbonia Books and published the book. We then owned a garage full of books. No one beat a path to our garage door to buy books. Several local bookstores stocked a few copies, as a favor to us, but sales were sparse. We ran magazine advertisements, but none brought enough orders to cover the cost of the advertisements. Eventually we were lucky; my partner had a friend who worked

for a major publishing firm in New York City. This company bought the rights to our book and published a paperback edition that finally had national distribution. When all was said and done, we spent a lot of time and effort. Our original printing costs and advertising costs exceeded the royalties received from the real publisher. We had learned a lesson, and we disincorporated Erbonia Books.

I am not a fan of self-publication.

PUTTING IT ALL TOGETHER

Medical articles and book chapters traditionally have a “summary” section at the end. This is it.

A Word from the Author

When you go to live theater, you get something from the performance and you give something to the actors, musician, and writers. I believe that something like this happens when reading an article or, in this instance, a book. In writing this book, I have offered my best advice and most clever personal stories. In return you have given your attention, especially if you have reached this page in your reading. In doing so, you allow me to assume that I may be some small help in your future writing successes. For me, that is the real reward of the writing effort.

Remember that writing is a continuous process. The writer does not think about the writing episodically. For a writer, the current task, and maybe the next, will always be lurking in the subconscious mind. You will be sensitive to the analogy, the anecdote, and the image that can make your work sparkle just a little. Writing does not occur just when you turn on your computer. The mining of your personal experience and connectivity, cataloging ideas and images, and organizing ideas are all part of writing.

In the 1987 movie titled *Throw Momma from the Train*, Billy Crystal plays a down-on-his-luck English literature teacher leading an adult night school course in creative writing. Danny DeVito plays a not-too-bright student aspiring to be a writer. At several key points in the movie, Crystal

emphasizes to DeVito, “A writer writes!” In the end, both successfully publish their books.

I urge you to join me and others in writing. See it as an ongoing journey of education, self-discovery, and personal growth. For me, writing this book has been part of such a process. I hope that you have enjoyed reading it half as much as I have enjoyed writing it. I am sorry to see it end. But I have another project in mind to start next week.

My last offering in the book is a personal indulgence. We have all heard of Robert’s Rules of Order. Here are Doctor Taylor’s Rules for Medical Writers:

- *Be smart enough.* Yet, be well aware that being intelligent is not enough.
- *Be organized.* Keep files and notes, with full reference citations, whether on paper or computer. Know where things are, and take the time needed to systematize all your writing materials.
- *Be a reader.* Always be reading something, and seek a wide range of topics. While reading, note both what is said and how the author expresses the ideas.
- *Be a good time-manager.* Clinical care is your day job, and it cannot be neglected. Patients will suffer and you will lose your wellspring of writing ideas. But you must also carve out regular, dependable time for writing if you are ever to finish a project.
- *Be an effective networker.* Get to know medical editors, other writers, and—if planning to edit a multiauthor book—potential authors. Make the ongoing effort needed to nurture these relationships.
- *Be bold.* Don’t hesitate to aim high or to propose the project that seems beyond your abilities. Those who take on too much, with too little time and too few resources, sometimes succeed.
- *Be persistent.* Writers endure rejection often. You must be able to bounce back and revise and resubmit or even start over. But you must not give up on your writing. A writer writes.

Now it’s time to Write It Up. Have fun!

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