

Suggestions for Clarity in Medical Writing

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The ability to write clearly is a skill learned by practice. Much time is spent on other facets of research such as formulation of hypotheses, experimental designs and statistical analyses; very little effort is spent on teaching trainees how to write effectively. Failure to teach writing skills is an unfortunate oversight since effective communication of research findings depends on clarity in writing. This is even more important when scientific information is being shared with colleagues for whom English is not a first language. Unclear writing and imprecise language contribute to reader confusion and, more importantly, to confused medical practice. Reports submitted with language inconsistencies, spelling and typographical errors add to the confusion.

We should strive to be clear, simple and unambiguous in our writing. A common pitfall in medical writing is to overuse professional jargon and lengthy phrases because they are perceived as being more scientific. In many cases, this verbosity leads to vagueness and ambiguity. In our groping towards imagined elegance, we tend to use many trite expressions and create new words. For example, the adding of "ility" gives us a new vocabulary (transportability, spendability and comparability); "ize" may lead to containerize, prioritize and finalize; "wise" may lead to laboratorywise, analysiswise and cardiacwise. In most cases, these short cuts can be avoided by performing a literature search that may indicate a more appropriate word or phrase.

Since much of writing is imitation, failure to recognize poor writing may lead to its emulation. One of the most common reasons given for poor writing is that everyone has his or her own style. Indeed, there is no satisfactory explanation of style and no infallible guide to good writing. The correct approach to style, however, is by way of clarity, simplicity, orderliness and sincerity. In fact, style should be superimposed on sound rules and principles of composition. A good writer will still write with style and inject something personal, even in scientific communications.

We are all aware of the difficulty in communicating research findings, the arduousness of the first draft and of the numerous revisions. However, there is no excuse for incorrect spelling and typographical errors. Writing should be done with

the same vigour that is applied to other aspects of research. We would like to offer a few suggestions that may be helpful in changing mediocre writing to good writing.

The first step is planning. This is accomplished most easily as an abstract in which there are guidelines as to headings, title and number of words. The same organization should go into writing the full-length manuscript. The plan should include Introduction, Methods, Results and Discussion. Short answers to the following questions will be of great assistance when preparing the manuscript:

1. What was I trying to do?
2. Why did I think it was worthwhile to do it?
3. How did I do it?
4. What were the results?
5. How do I explain these findings?
6. What is my message?
7. What deficiencies do I see in the study?
8. What are the lessons learned from this study?
9. What areas need further exploration?

In addressing these issues, one should strive to use familiar, short words in short sentences. Long sentences are more prone to faulty construction and incorrect grammar; they confuse readers more readily than brief, concise ones. Another common misperception is that a longer manuscript is better. In most cases, a succinct manuscript can convey a message more clearly and eloquently than a longer version. In fact, Watson and Crick's letter to *Nature* in 1953, one of the most important publications in the biological sciences, covers only one page (1). We should make every word relevant and precise. To improve these skills, one can practise rewriting sentences and deleting unnecessary words in each revision. Some university departments have committees that review all manuscripts prior to submission. If this is not present in your department, it would be a good idea to get at least two people to review your final version. Someone who is not a close colleague will be more likely to give a frank view of style and clarity. Finally, there is no substitute for reading books about writing English properly (2, 3) and imitating good writers.

Editors can effect change in the quality of writing by making a distinction between good and bad writing as a criterion in judging the quality of manuscripts. In fact, some editors are already using quality of writing as a criterion in deciding whether a manuscript should be accepted or rejected.

Although, to the beginner, writing a paper may appear to be a daunting task, having a paper published makes subsequent attempts easier. For the clinician, the easiest way to achieve this is to write a case report. Case reports require the simplest form of communication. An appealing title, brief introduction, case presentation and a concise discussion of the lessons learnt (with the most relevant references only) are the essential features of a good case report. For the non-clinician, a letter to the editor is a simple way to begin, since a letter often addresses a single specific point in a previous publication. However, writing a letter is a skill in itself (as is writing a review article, an abstract or a scientific paper). These separate requirements and

skills are clearly and succinctly described in *How to Write a Paper* by GW Hall (4).

It is hoped that this brief communication will assist and encourage young investigators and inspire established authors to continue improving their writing skills. Improvement in writing will benefit us all since communication goes both ways; we are ultimately both writers and readers.

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