

COMMON ERRORS TO LOOK OUT FOR IN MEDICAL PAPERS

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Abstract An inconsistent manuscript style and inappropriate presentation of the content hinder the legibility and comprehension, thus reducing the influence of a scientific work. In this essay, I describe common errors with style encountered in my editorial practice. These range from seemingly trivial errors with capitalisation and italicisation to complex mistakes involving the use of the apostrophe in eponymous terms. By addressing these inconsistencies, editors can ensure that papers are well presented and devoid of stylistic issues.

Keywords Medicine; writing; periodicals as topic; terminology as topic; eponyms.

The horizons of science and medicine expand daily, with the addition of new concepts and theories. An avid researcher or physician is pressed to keep up with the constant advances in their scientific fields. Since a published work is the most popular format for the dissemination of essential information, the intricacies of manuscript preparation are of great importance. An integral aspect of this is the style of writing.

Maintaining a consistent and clear style is vital for appropriately describing a researcher's work so that others may follow or build upon it. If a scientist has discovered a way to make pigs fly, but cannot organise the work into a clear and concise form, s/he might be the only one who can boast of a farm with flying pigs.

It is no surprise that many journals advocate the use of a consistent style to expedite the publication of novel and interesting research. As an editor of medical manuscripts, I have come across several types of inconsistencies that affect comprehension and presentation. In this essay, I describe a few of the common stylistic errors and hope to dispel some arguably inaccurate assumptions on the usage of certain terms.

In medical papers, the terms "male" and "female" are more appropriately used as adjectives than nouns. If you introduce a subject as a 20-year-old male, you may well be referring to a male horse, orangutan or any other 20-year-old male animal. Hence, it would be more appropriate to write "a 20-year-old man presented to our hospital."

Two terms that are used interchangeably but have distinct intended usage are "case" and "patient." A "patient" is an individual who has a particular condition and undergoes specific interventions. A "case" refers to the condition with its attendant circumstances. Consider the example "a case with tuberculosis presented to our clinic for treatment." Unless there is a new strain of tuberculosis that can now affect cabinets and cases (possibly a mutant fungal-bacterial lichen), the use of "patient" would be more appropriate in this "case."

A couple of terms used interchangeably include those relating to the imaging procedure and the resulting image or finding. One should clearly distinguish when using the term "radiography" or "radiogram." *Radiography* can be performed, but only a *radiogram* would indicate or reveal the presence of a specific condition.

Non-native English speakers find the rules governing the use of articles particularly tough to negotiate in technical contexts. A common error that an editor may encounter in medical papers is the omission of articles before the names of body parts. The rule is simple and easy to follow: the definite article "the" should be included before the names of body parts such as the heart or the pancreas. However, when the names of body parts are provided in a list, an article may be provided only after the first name—such as the heart, lungs and brain. In the case of certain idioms, I recommend not applying this rule, or you will have constructions such as "don't take this to 'the' heart" or "it is a gory film; she will never be able to 'the' stomach it."

The presentation of drug names varies in the literature, particularly with regard to capitalisation. A useful rule is that the names of generic drugs should be in lower case, whereas brand names should be capitalised. Thus, olanzapine should be in lower case, but the brand name Zyprexa should be capitalised. This rule is similar to the regular English grammar guideline that proper nouns should be capitalised, whereas common nouns should be in lower case (*Big Ben* but a *small pen*).

The appropriate case for terms that have been derived from proper nouns is a controversial topic. Editors are unsure whether to capitalize “petri dish” and even the capitalisation of commonplace terms such as Gram stain or gram-positive bacteria is associated with much uncertainty. The popular rationale is that terms derived from proper nouns should be in lower case (the adjectival form), whereas the term should be capitalised when the proper noun itself is used. Thus, Gram stain is capitalised, but gram-positive bacteria is not. In a similar vein, terms such as graafian follicle and parkinsonian gait, ie adjectival derivatives, should be in lower case. A common error in capitalisation, unanimously accepted by the editing community as incorrect, is the use of upper case for western or northern blotting. Southern blotting is capitalised because the technique was discovered by the scientist Edward Southern (who, ironically, was born in *North West* England). Sadly, the research of Drs Northern and Western did not result in the creation of techniques named after them. Instead, the northern and western blots are merely based on the naming of the Southern blot and should therefore be in lower case.

Another hotly debated topic is the use of an apostrophe in eponymous terms. Several sources advocate that the apostrophe should be used if a disease is named after a patient, such as Mortimer’s disease, but omitted where a disease is named after a physician. At a conference held by the United States National Institutes of Health, the consistent use of an eponym without an apostrophe was advocated.¹ This suggestion is based on the argument that the physician did not have the disease—James Parkinson fortunately did not have Parkinson disease, but merely was the first to publish on this condition. In a sense, the medical writing community appears to be moving toward the use of eponymous terms without an apostrophe, eg Down syndrome.

There are other common errors that are not necessarily specific to medicine. Some widely noted ones include:

- Until recently, *data* was commonly used as a collective noun with a singular verb (*data is*). However, it is now considered a plural noun, with *datum* as the singular form. Thus, the correct use is “*data* of laboratory tests *are* analysed”.
- Adding to incorrect subject-verb agreement is the usage of measurement units as plural nouns. Units of measure should be used as collective singular nouns, although this may seem slightly odd when the unit is spelt out. Thus, the correct use is “fifteen millilitres of buffer *is* added” rather than “fifteen millilitres of buffer *are* added”. However, to avoid this odd presentation, one can write “a volume of 15 mL is added”.
- The use of “significant” should be avoided, except to indicate statistical significance. Instead, the use of “marked” or “remarkable” is advised. For example, “serum albumin concentration is *significantly* increased” should be corrected to “serum albumin concentration is *markedly* increased”.
- The use of the present tense in tables and figures, while describing their contents, is correct. For example, a legend should be written as “the computed tomographic image *shows* a tumour (arrow)” instead of “the computed tomographic image *showed* a tumour (arrow).”
- Sometimes, test results are described as unremarkable or normal. For example, “the biochemical tests are unremarkable.” Unless you are commenting on the unique or amazing characteristics of the tests themselves, it is advisable to specifically refer to the *findings* or results of the tests. The correct use is “the *results* of the biochemical tests were unremarkable.”

The use of an inconsistent style as well as awkward terminology occasionally biases the reader to the quality of the work and makes the article more cumbersome to read. It is essential that the manuscript content be conveyed in an appropriate manner. This is where the nuances and conventions of the English language play a crucial role. It is often said that English is a funny old language, but in the scientific publishing world, it is considered serious business, and no one’s laughing.

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