

Honing your proofreading skills

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Abstract

As part of their role, medical writers and editors are expected to be excellent proofreaders with the ability to identify and remedy mistakes such as grammatical, spelling or formatting errors. This article details the steps that can be taken with each proofread to assist you in becoming an efficient and adept proofreader. The accompanying exercises provide examples of common mistakes and inconsistencies you may come across when editing and proofreading scientific content.

Medical writers and editors play an important role in the field of scientific publishing and communications. While the responsibilities between these can differ, all medical writers and editors have skills in common – for example, they must have a strong grasp of the English language and an eye for detail. A large part of many writing and editing roles involves the ability to proofread and edit text to a high standard. Whether you are editing a manuscript or abstract for a journal, a poster for a conference, or a sales aid aimed at healthcare professionals, being able to pick out and correct errors easily and efficiently is key. After all, a proofreader is the last line of defence against glaring spelling errors, inconsistencies and awkward grammar. A well-edited piece of content can, among many other factors, determine its success.

Online articles and books provide tips on the common errors to look out for while proofreading. While these are useful, particularly for new writers and editors who are just beginning their career, memorising lists may not be the most effective way to learn. This article is

aimed at both new and experienced medical writers and editors alike, detailing the steps to take when proofreading to allow you to hone your skills and become an efficient proofreader.

Before proofreading

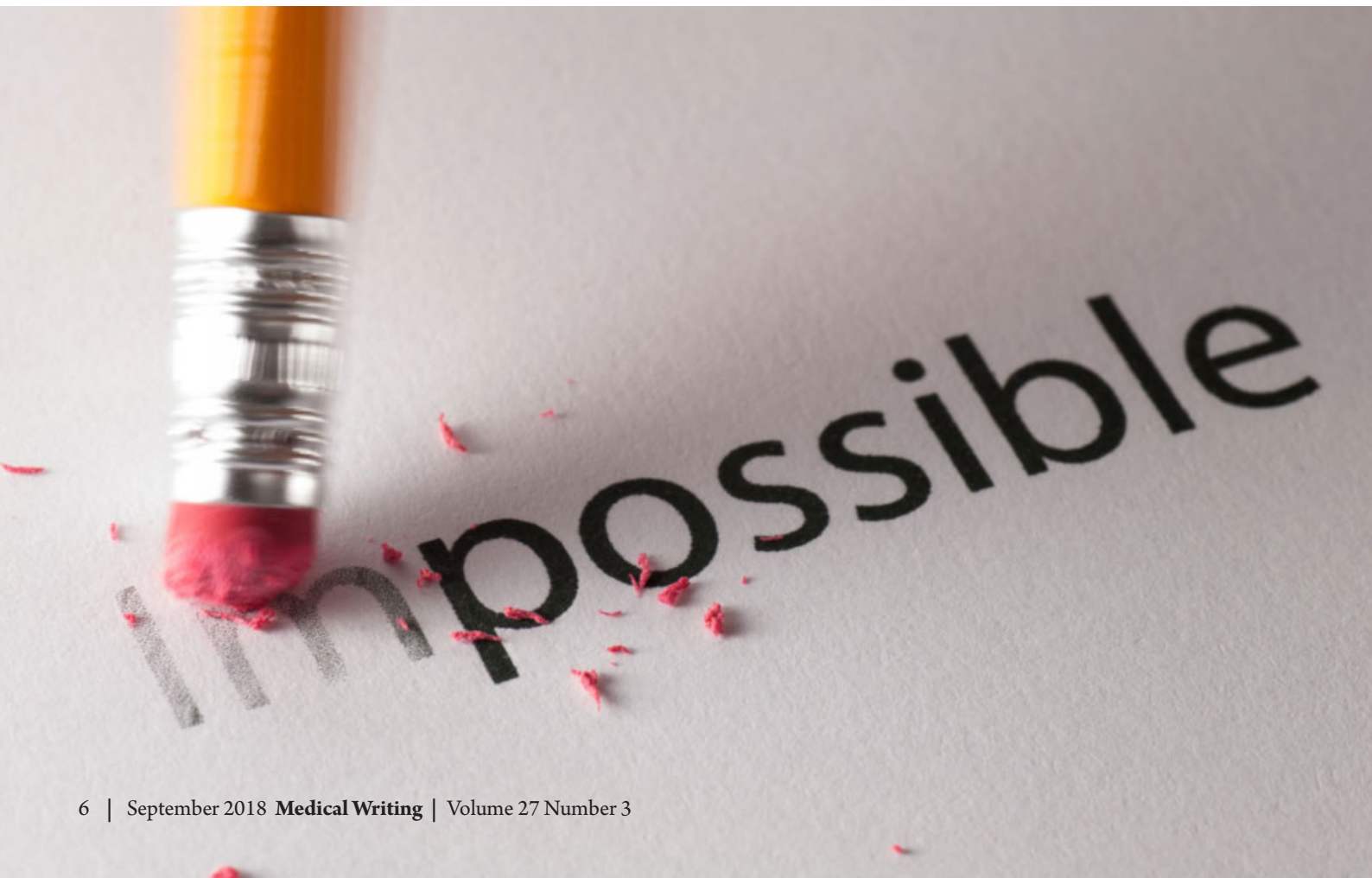
Prior to proofreading anything, there are steps that can be taken to ensure you are set up to maximise your efficiency and ability to spot and correct errors.

Limit distractions

Editing and proofreading requires high focus and concentration. Before beginning, ensure that you are in an environment that fits your style of working. This will vary between individuals; some may prefer to be in complete isolation, while others will thrive in a busy coffee shop or other areas with background noise.

Know your medium preference

Another important step before beginning is to know which medium – electronic or hard copy – you prefer and which you work best with. Some



people may prefer the more traditional style of using hard copies, as it is often easier to see errors in formatting (i.e. different font sizes or styles), colour differences, and crop and bleed marks. Others, however, will prefer proofreading digitally because of built-in features of software, such as spelling and grammar checkers and *Find & Replace* functions, which allow for swift correction of common errors. Using a digital format also aids in the detection of subtle differences in line and paragraph spacing that is not easily discerned through printed copy.

Although it will not always be possible to use the medium which you work best with, as different organisations and clients work differently, it is useful to have both. Once you have finished proofreading, I recommend doing a final check in both mediums – i.e. if you used a digital copy, print it out at the end to identify anything you might have missed; conversely, if you proofread a hard copy, open the digital version and check for errors such as line spacing and subtle font size differences that will have been difficult to notice from a printout.

Know the context

Are you proofreading a manuscript in which formal and technical language is more likely, or a conference poster aimed at healthcare professionals where the wording is more engaging and marketing terms may be used to sell the piece? Is the target audience only those who are native English speakers or is it also intended for non-native speakers? Before you begin, get as much information as possible on the context of the document you are checking. This will help you to make sure that the style and tone remains consistent throughout and is not inappropriate for the intended audience – for example, idioms should generally be avoided in texts where the audience may include non-native English speakers.

During proofreading

You are ready to proofread, but what can you do to assure yourself that nothing is missed?

Read aloud but also silently

Reading silently has the advantage of making it easier to check for issues with readability and sentence flow; however, silent reading may also encourage skimming of text and unintentionally skipping over small errors as your brain fills in the gaps. Reading aloud, on the other hand, forces

you to read more slowly and without skimming text, allowing you to catch the errors you might have missed while doing so silently. But what about punctuation? As punctuation marks are silent, reading aloud will not help with finding any incorrect uses of full stops, commas, exclamation marks and so on.

There is therefore no *better* way to read a piece of text when proofreading. I recommend doing both to ensure you are able to identify as many errors as possible. Over time, you may find a preference for one over the other but, generally, it doesn't hurt to do both.

Read the sentence backwards and in isolation

As with small errors that can go unnoticed when reading silently, your brain will fill in the gaps from context when reading forwards and encountering misspelled words. While the sentence will not make sense if you read it backwards, it will help pick up spelling mistakes. Similarly, reading a sentence or paragraph in isolation will assist in detecting issues with readability or sentence structure. This can be done electronically by adding a return or paragraph break in between sentences or by increasing line spacing. If using a hard copy, a ruler or piece of paper to block out text is also effective.

Make notes or a checklist

As you go along, make notes or a checklist of anything you're not sure about or need to check later. This is especially useful if you are editing or proofreading to a specific style guide; moving back and forth between the style guide and the content can take you out of the focus of the latter, so it can often be more useful to note things down as you go along so that you remember to check thoroughly later. This will also prevent you from correcting something that doesn't need to be corrected – for example, when proofreading a manuscript, imagine that the author uses *qd* in both the Abstract and Introduction but in the Methods section switches to using *once daily* instead. Rather than correcting each time as you go along, you can note it down and check against the style guide later. It may very well state that *once daily* is the correct form to use, so correcting to *qd* throughout because it was used first would not be the correct approach.

Compare the content to a similar piece of work

When checking visual content – such as a conference poster or a galley proof – there can often be styling inconsistencies where it is not clear from the style guide which is correct; for example, the way the authors' names and affiliations are written, or the size of a logo. Where possible, compare it to a similar piece of work. For a conference poster, you can check against the poster for the same meeting that occurred in a previous year; for a galley proof, you can check it against a published article in the same journal.

Final checks

Once the bulk of the proofreading is out of the way, it is always good to do a final check of the work to uncover any errors that might have been missed.

Prior to proofreading anything, there are steps that can be taken to ensure you are set up to maximise your efficiency and ability to spot and correct errors.

Check for weird fonts, colours and sizing

Do a quick scan of the work and double-check anything that *looks* odd or inconsistent. There may be subtle errors, such as black versus dark grey font colouring, that were not caught earlier.

Use digital tools

Features of digital software such as grammar and spelling checkers are useful tools as part of final proofreading checks; however, these are not perfect and should not be relied upon. They will not be able to discern between homophones (e.g. lesson vs lessen, peak vs peek,

whether vs weather, etc.) and are not reliable when checking for grammatical errors. At this stage, if all the aforementioned steps have been followed, there should be very little – if anything at all – for these checkers to correct.

Take a break

Reading the same thing repeatedly will make the brain skip words and phrases, reducing your ability to identify errors. Taking a break and coming back to it with *fresh eyes* can be more effective. A day or more away is ideal though not always possible because of deadlines, so even as little as 30 minutes away can help – go for a walk in this time or read a book. The key is to take your

brain's focus away from the document. If using an electronic copy when proofreading, changing the look of the content (by amending font size, colour, and sentence or paragraph spacing) will also trick your brain into thinking it is looking at something unfamiliar when you come back to it. It may also be preferable to work in short blocks of time, as concentration and focus can wane over longer periods.

Summary

Proofreading is a learning process. Over time, as you gain experience with different types of content, you will be aware of the common errors to look out for and the techniques you can use to ensure you are proofreading to a high standard. The following exercises put this into practice, providing examples to test what you have learned in this article. I hope the processes and tips provided here will help you on your journey to becoming a more efficient and adept proofreader.

Conflicts of interest

The author declares no conflicts of interest.

Author information

Naila Zaman started her career as an Editorial Assistant for a scientific journals publisher before moving on to work in educational and healthcare publishing. With over 5 years of editing experience, Naila has participated in training colleagues on how to edit and proofread content for high accuracy and quality.

Over time, as you gain experience with different types of content, you will be aware of the common errors to look out for and the techniques you can use to ensure you are proofreading to a high standard.

Exercises

Exercise 1: Find the error in each sentence

Instructions: Circle the error in each sentence. There is one error per sentence.

1. These results indicate that Drug X is more effective then placebo in reducing symptoms in patients with diabetes.
2. We showed that this method is more percise than the current standard diagnostic tools.
3. Tools are available for physicians to assist them in the management of the patient and they're disease.

Exercise 2: Find the errors in each sentence

Instructions: Circle the errors in each sentence. There are multiple errors per sentence.

1. More than $\geq 50\%$ of patients expereined treatment-emergent adverse events, the most common of which was headache, nausea and dizziness.
2. Healthy males and women aged between 18 or 35 years with a body mass index of $< 30\text{kg/m}^2$ and total body wait of 50 kg were enroled into the study.
3. The incident rate ration (IRR) for diarrhia was 0.91 (95% confidence interval [CL]: 0.21–3.22) for treatment with drug A, 0.90 (95 CI: 0.63–1.11) for drug b, and 2.85 (95% CI: 0.65–8.35) for drug C.

Exercise 3: Find the inconsistencies in the text

Instructions: The following paragraph pairs are taken from the same manuscript. Identify and circle the inconsistencies between each paragraph.

Manuscript 1:

Paragraph 1: This was a Phase 3 multicentre trial to determine the safety, efficacy and tolerability of Drug X in patients with chronic obstructive pulmonary disease. Patients aged 18–54 years were assessed prior to study start and at Month 48. The primary endpoint was the proportion of patients with reduced frequency of exacerbations with Drug X compared with placebo.

Paragraph 2: This phase III multicenter trial found that patients receiving treatment with drug X had a reduced frequency of exacerbations compared with patients who received only placebo. The primary end point was reached in all treatment groups, except for those in the 40–54 yrs age group.

Manuscript 2:

Paragraph 1: Overall, 200 patients were free from relapses at Month 12 after initiation of the study drug. This proportion was highest in the subgroup of patients that received twice-daily dosing (n=101; 82.5%) followed by patients

receiving once-daily dosing (n=99; 73.3%). The mean relapse rate (standard deviation [SD]) decreased significantly from 1.35 (0.77) before study drug initiation to 0.23 (0.72) after 12 months of treatment, representing a reduction of 83% (p<0.0001).

Paragraph 2: The reduction in the number of relapses was significant in all treatment arms, with the highest reductions observed at month 12 in people who received the study drug b.i.d. (N= 101; 86.3%; P < 0.001).



Answer key

Exercise 1: The errors are underlined.

1. These results indicate that Drug X is more effective then placebo in reducing symptoms in patients with diabetes.
2. We showed that this method is more percise than the current standard diagnostic tools.
3. Tools are available for physicians to assist them in the management of the patient and they're disease.

Exercise 2: The errors are underlined.

1. More than ≥50% of patients experineced treatment-emergent adverse events, the most common of which was headaches, nausea and dizziness. (5 errors)
2. Healthy males and women aged between 18 or 35 years with a body mass index of <30kg/m² and total body wait of 50 kg were enroled into the study. (5 errors)
3. The incident rate ration (IRR) for diarrhja was 0.91 (95% confidence interval [CL]: 0.21–3.22) for treatment with drug A, 0.90 (95 CI: 0.63–1.11) for drug b, and 2.85 (95% CI: 0.65–8.35) for drug C. (6 errors)

Exercise 3:

The inconsistencies between both paragraphs in each manuscript are detailed below.

Manuscript 1:

- Phase 3 vs phase III. The latter is in lower case and uses Roman numerals instead of Arabic numerals.
- Multicentre vs multicenter. “Center” is the US English spelling, while the first paragraph uses UK English spelling.
- Years vs yrs. The second paragraph uses the shorthand “yrs” when it was written out in full in the first paragraph.
- Hyphen vs en dash. In the age range in Paragraph 1, a hyphen is used but in Paragraph 2 an en dash is used instead.
- Endpoint vs end point. Paragraph 1 uses the correct spelling while the second paragraph adds an unnecessary space between the words.
- Drug X vs drug X. Generally, drug names will be in lower case unless the product is a brand.

Manuscript 2:

- Month 12 vs month 12. In the first paragraph, the first letter for month is capitalised as this is referring to a specific time point in the study. The second paragraph is in lower case, which is inconsistent but also incorrect.
- Twice-daily vs b.i.d. Although the meaning of these is the same, interchanging between

them can be confusing for readers so it is preferable to use one style throughout.

- Patients vs people. The first paragraph uses patients, while the second refers to them as people. Although sometimes interchangeable depending on the context of the study, it is usually better to avoid switching between identifiers as this could be confusing to readers.
- Style of presenting n/N values. In the first paragraph, there are no spaces between the n and the equals sign and the value when referring to the number of patients, while the second paragraph has a space after the equals symbol. The way that this is written will depend on the style guide, but usually there are no spaces. In addition, a capital N is used to refer to the overall population whereas a lower case n denotes a sub-population; therefore, in this instance, the “N=” in Paragraph 2 is incorrect as the number of patients is from a specific subgroup only and not the overall population.
- P value style. Similar to the above, there is no one correct way to present p values and styles will vary. However, in the absence of a style guide, the same style should be used consistently throughout the manuscript.