

FREELANCE FOCUS



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Q1: What advice would you give to freelance medical writers, editors, or communicators who are new to medical writing and have limited writing experience?

If you have limited or no hands-on writing experience, the first question you should be asking yourself is, “Why do I want to be a medical writer?” If the answer is, “Because it pays well,” you probably should rethink the idea of being a medical writer; otherwise, if the answer includes, “Because I love reading and writing and sincerely wish to develop the skills to be a good writer,” then go forward.

Other crucial questions include, “Am I willing to do the work involved to learn how to write well, to study and discriminate the medical literature, and to immerse myself in medical and other health care topics? And do I honestly believe I would be an excellent writer and communicator?” If the answers to these questions are a resounding “Yes,” then great! Move forward.

The most essential things you need are experience and good writing skills—so practice, practice, practice; write, write, and write more. I recommend taking an onsite writing class (or several) at your local college or university—not an online class because learning is more valuable in the classroom with a teacher and other students. Although the AMWA Essential Skills booklets are supportive, they cannot teach you how to write; nor can they give you the hands-on experience necessary to ask someone to pay you to write an article, clinical report, or other writing tasks. Most companies or clients wish to work with an experienced medical writer, not a trainee. (However, some agencies may be willing to hire you as a contract writer as a trainee at a lower rate, although this is not too common.)

Try selecting a topic area in medicine (eg, heart disease, a specific cancer, psychiatric medicine, etc), write an interesting article or review, and submit it to your local throw-away journals or magazines for free, just to get experience and a few published articles in your portfolio. Do your marketing research; determine who is likely to accept such articles from you.

There are so many venues for publishing your writing. For example, if you wish to write for magazines devoted to the lay public, consider Writer’s Market 2024 (<https://writersmarket.com>). There you will find information about the

requirements of many journals/magazines, including how to submit your work, or how to receive an assignment.

I strongly recommend working in a full-time job as a medical writer before attempting to sell yourself as a freelance medical writer. Even if you take a position as an associate medical writer at a lower salary, it will be worth it because you will acquire many skills not possible from just taking a few courses and reading booklets about writing.

Medical writers can work in various media, for example, publishing, public relations, marketing communication, sales training, website copy, advertising agencies, pharmaceutical or biotech companies and their contract research organizations, continuing medical education for physicians, nurses, pharmacists, patient education, sales training, standard operating procedures (SOPs), and more. It is a good idea—once you have taken classes and acquired the skills and hands-on experience—to select certain media or therapeutic areas for which you feel an affinity and practice in those areas.

In the pharmaceutical and biotech industry, you need not only writing skills and experience, but also you should have a good understanding of the process of drug research and development (from bench to marketing), how the industry works, what requirements and guidelines the US Food and Drug Administration (FDA) and other regulatory agencies have, and how different departments relate with each other (eg, research, biostatistics, clinical studies, marketing, sales).

If you are earnest in the desire to be a professional medical writer, do your homework and write, write, write, and write some more!

—Cathryn D. Evans

Q2: What are the top software tools for new medical writers?

When I started as a freelance medical writer in 2005, I had a laptop, a cell phone, and Microsoft Office 2004. I tracked time with TaskTime4 or copious Post-It notes on my desk. Over the years, I’ve added many software tools to my technology stack. Some have enhanced my productivity, some have wasted time, and some have been fun to explore. Here are some tools I recommend to help streamline research, writing, and collaboration processes.

Regardless of your specialty in medical writing, you probably have to track and manage references and source material. I know too well how easy it is to get tangled in a reference knot, but not if you have robust reference management software! I've used Endnote since my graduate days to save time and ensure citation accuracy, but many alternative options exist. Mendeley and Zotero have free versions to help you organize, cite, and share your sources if required. You can create a searchable database of your references, generate bibliographies, and easily insert citations into your text.

Like many medical writers, I started with Microsoft Word, but a couple of years ago, I switched to the Google family of tools, which includes Docs, Sheets, and Forms. I've always been an Apple user, and these tools integrate more seamlessly with Mac products. Some clients use Microsoft, and some use Google. If you have to switch back and forth between these tools, you'll find that the interoperability between Google and Microsoft is reasonable. Like Microsoft tools, Google Docs also allows real-time collaboration with colleagues and clients, making it easy to incorporate feedback and track revisions. For longer documents like book manuscripts, I recommend Scrivener or Butter Docs. These tools are highly visual. They use cards and blocks that allow you to easily rearrange sections of your document across horizontal boards. Dropbox is a must-have for file sharing—spring for at least the business plan to maximize your storage limit. I also recommend meeting and calendar software. Your clients will thank you for making meeting scheduling and follow-up a breeze. I use Calendly to schedule meetings, otter.ai to create a transcript (with permission), and Zoom to conduct virtual meetings.

Applications like Grammarly or Hemingway Editor can help you polish your writing by identifying grammar, spelling, and style issues, and help to ensure your work is free from unintentional plagiarism. If your clients require you to create or recommend visuals, data visualization tools like Infogram, Canva, and Piktochart can help you build engaging charts, graphs, and infographics to supplement your content. I also like the Noun Project for customizable icons and royalty-free photos.

When juggling multiple clients or projects, it's easy to get overwhelmed by different project tasks and timelines. Software to help you keep tabs on different client requirements is vital. I currently use Click Up to create task lists and monitor progress, but many project management tools like Trello, Asana, Evernote, Basecamp, or Notion will help you stay organized with project items and track deadlines.

—Alex Howson

Here is a short list of what I use:

- Cloud-based backup, for example, Dropbox (<https://www.dropbox.com/backup>) or Carbonite (<https://www.carbonite.com>). Be careful about having

multiple backup systems as they sometimes mess one another up by moving folders.

- Computer security, for example, Webroot Antivirus (<https://www.webroot.com/us/en/home/products/av>)
- Accounting software for expenses, invoices, estimates, and time tracking, for example, QuickBooks (<https://quickbooks.intuit.com/oa/get-quickbooks>)
- Teleconference software, for example, Zoom (<https://zoom.us>) or Microsoft Teams (<https://www.microsoft.com/en-us/microsoft-teams/download-app>)
- PDF unlocking software, for example, Soda Unlock PDF (<https://www.sodapdf.com/unlock-pdf>)
- *AMA Manual of Style* (<https://academic.oup.com/amamanualofstyle>). The eleventh edition is the current edition, and it's continuously updated online. (As an AMWA member benefit, access is 20% off. See the complete list of affiliate partner discounts at https://www.amwa.org/page/Member_Benefits)
- Citation management, for example, EndNote (<https://endnote.com>)—15% off as an AMWA member benefit.
- PerfectIt Proofreading Software (<https://intelligentediting.com>)—30% off as an AMWA member benefit.
- Stedman's Online Medical Dictionary (<https://www.wolterskluwer.com/en/solutions/lippincott-medicine/medical-education/stedmans-online-medical-dictionary>)
- Adobe Acrobat (<https://www.adobe.com/acrobat/complete-pdf-solution.html>)

AMWA member Monica Nicosia, PhD, has published surveys in the past about essential digital tools for medical writers, and recently concluded a survey in March 2024.

—Melissa L. Bogen

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Q3: What is the role of generative artificial intelligence in medical writing?

Although I have used ChatGPT and BingChat frequently, I have not used them for serious medical writing projects, partly because these and several other ChatBot programs are still in development, changing rapidly—but more importantly, because I have found too much plagiarism, a limited scope of the responses, information rendered incomplete, too many errors in citations (which means I have to check everything), and no obvious advantage in terms of time spent.

One really does need to check the reference citations and go beyond the research data these programs provide—thus, in the end, although they may be fun and interesting, they do not reduce the time required to write a serious article, so far, at least. An experienced medical writer, I have

found, can do the job faster than when using artificial intelligence (AI) to assist. Nonetheless, at present it is useful to get a few helpful ideas here and there, and definitely the direction AI is going suggests that these programs might be much more helpful in the future. AMWA offers workshops or webinars given by people who use AI seriously and often so likely it is prudent to sign up for them. Time will tell...

—Cathryn D. Evans

When generative AI started making a big splash everywhere, I tried to bury my head in the sand and ignore it. I just didn't want to deal with it. But as I started learning about generative AI, I realized that if I wanted to survive and thrive in the era of AI, then I had to learn how to use it in my medical writing.

Generative AI, algorithms like ChatGPT, is a type of AI that can create content, ideas, outlines, images, videos, and more. Right now, most medical writers (freelancer and employed) and organizations working in the field are still trying to figure out the best ways to use AI in medical writing. But as the technology evolves and we all gain more experience using generative AI, its use and importance in medical writing will increase, probably exponentially.

Like all technology, generative AI has benefits and limitations. It can increase our efficiency, once we learn how to use it. But medical writers must use generative AI ethically and responsibly.

Medical writers can use generative AI to plan content, brainstorm ideas, summarize data and information, generate titles, ensure consistency, optimize content for search engine optimization, and more. Although generative AI can be a great starting place for a project, we should never use it to do the writing for us.

Generative AI can't replace our expertise, judgement, and critical thinking skills. Using it effectively requires much more than simply typing in a topic. Writers must know how to prompt the AI tool to deliver accurate and appropriate results and to carefully review and validate those results. This requires skill.

Problems with generative AI in medical writing include the lack of the most current information and the lack of subject matter expertise. Also, AI doesn't know the needs, perspectives, insights, or strategies of our clients. And we can't use proprietary information on ChatGPT or other AI tools because user prompts are incorporated into their algorithms.

Nearly all of my work requires interviews with subject matter experts or extensive use of information about my clients. Although most of this is not proprietary, much of it is not publicly available. So, I wouldn't feel comfortable using it in my prompts.

Also, generative AI can't produce creative or original content. It lacks the human touch. Information can be inaccurate and confusing, biased, and possibly racist.

Using generative AI in medical writing is a skill. Like any skill, practice will help you learn how to use generative AI ethically and responsibly. Experts say to just start experimenting with ChatGPT.

Learning new technology has always been a struggle for me. If I can learn how to use generative AI, then you can too.

—Lori De Milto

I have been noodling around with generative AI since ChatGPT emerged late in 2022. Mostly, I've been playing with tools like Claude, ChatGPT-4, Castmagic, and other platforms with generative AI capabilities to support content marketing and podcast production. This noodling feels like low-stakes fun. Although I have not (yet) used generative AI for client-facing medical writing, there is a lively discussion about its promise in my medical writing specialty, continuing education (CE) for health professionals. Proponents of generative AI emphasize its potential for creating initial drafts of CE content, such as overview articles and case studies, or for developing interactive elements to enhance learner engagement and knowledge retention, such as quizzes or polling questions.

Given the persistent concerns about quality control, content integrity, and bias in AI-generated content, I'm not alone in viewing generative AI in CE as best used for research assistance tasks and optimizing workflow efficiency. Here, generative AI shines. For instance, tools like Semantic Scholar, Scholar.ai, and Elicit scan and summarize relevant medical literature rapidly, speeding up parts of the research process. Similarly, tools like SciSpace generate multiple citations focused on a particular topic or research question and provide explanations, summaries, and insights for technical text, equations, and tables in research papers and other written content. Tools like ResearchRabbit can help you visualize connections between articles and authors, making it possible to drill ever more deeply into the literature to pull out granular nuggets of information that bring educational content alive. When writing about complex topics, summarizing software is a launchpad that helps you get a quick gist (eg, Quillbot, DeepL Write, Scholarcy, Genei.io). Generative AI can also polish your text and streamline the editing and revision process by identifying potential errors, inconsistencies, or areas in your work that require additional clarification.

Beyond these current tasks, CE medical writers will likely see more generative AI in their workflow and content creation. Undergraduate medical education already uses generative AI to personalize learning, create virtual simulations tailored to individual learning gaps, and develop assessments. CE will no doubt follow.

—Alex Howson