

The field of biomedical communications is filled with jargon that can confuse even seasoned medical writers. Nude Mice is a comprehensive resource that demystifies complex medical jargon so that medical writers can write accurate text for any audience, any time.

Nude Mice

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# **Nude Mice**

**And Other Medical Writing  
Terms You Need to Know**

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# **Nude Mice**

## **And Other Medical Writing Terms You Need to Know**

**By**

**Cynthia L. Kryder, MS, CCC-Sp**

With a foreword by Brian Bass

## Foreword

When I started in medical writing, I had already been a professional writer for 6 years. And while I was still in school, my favorite assignment was to write papers. So I felt pretty confident in front of a keyboard. But by the time I finished my first day as a medical writer, I felt like I was a blithering idiot.

I had just started work for an advertising agency whose clients were all in animal-health pharmaceuticals. The day began with a start-up brainstorming meeting for an ad campaign we were assigned to develop for our client's new product, an equine anthelmintic. Equine *what!*? Now, I knew that equine meant horse. But what the heck was that other word? I could barely say it, let alone figure out how to spell it. The rest of the day didn't go much better. I was bombarded with so many new words that, at first, I thought maybe I had made the wrong career move. After all, how could I be successful if I couldn't even figure out what people were saying? Then I thought better of myself.

Armed with my medical dictionary and a few other medical reference books, I thought to myself, "I can do this. If a medical student can learn it, so can I." From then on, I treated every day like I was in school. I soaked up everything I could, made notes to myself, and then challenged myself to put what I had learned to use by speaking with my colleagues and writing. That helped me to think through the processes and internalize them. Slowly, the new language I was learning began to make sense. But it wasn't easy. It took a lot of time, and I made a lot of mistakes along the way. Some of those mistakes still make me blush to think that I could have been so naïve!

If you're starting out like I did, a professional writer with no prior experience in the health care field, you'll probably feel like I felt at first, too. Dazed and confused, overwhelmed and underprepared. But perhaps you're starting like Cyndy did, a health care professional with

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no prior experience as a writer. I hate to tell you, but you're still in for an uphill ride. Cyndy knew a lot about this stuff before she started writing, and she was overwhelmed by the language of health care, too! Face it, no matter from which direction you come to medical writing, learning the language will be a challenge...at first. The good news is, this book is going to make it a lot easier!

When Cyndy first came up with the idea for *Nude Mice* (that title still makes me chuckle), I thought it was fantastic! We talked about how we both struggled to learn the language of health care, the language of medical writers, when we got started. It wasn't easy. Sure we had medical dictionaries, and they were invaluable. And as the Internet took off, it became easier to research terms, and particularly acronyms, online. We also each had our arsenal of books on grammar and style to help keep us on the straight and narrow. But we realized that none of these tools helped us overcome the linguistic confusion we encountered, and that we still encounter, on a daily basis. Words that sound the same but are spelled differently and have completely different meanings. Words with the same prefixes or suffixes that seem like they should pertain to the same thing, but do they?

Cyndy agreed to write this book to finally unravel the complex language that is medicine, so you can overcome the linguistic challenges you will face throughout your career as a medical writer. It's the book we both wish we'd had long ago so we could separate the Greek from the Latin, the HMOs from the CROs, the viscous from the viscus; and so we'd know a nude mouse when we saw one. It's like the old Chinese proverb, "Give a man a fish and he will eat for a day. Teach a man to fish and he will eat for the rest of his life." Here, Cyndy does a fantastic job of teaching you how to fish out the meaning of the words every medical writer needs to know to become successful. Bon appétit!

---Brian Bass

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## Ignorance Isn't Always Bliss

Imagine this scenario. You've been hired by a medical communications firm to create a slide deck for a live symposium that will be presented during the annual meeting of a national medical specialty organization. The therapeutic area is infectious disease, an area in which you haven't worked before. Your client expects you to participate in a start-up teleconference to learn more about the project, discuss the project's parameters, and develop a timeline for deliverables (standard procedure for almost all projects). Because you haven't received any background information yet, you're at somewhat of a disadvantage.

The conference call begins, and you listen carefully as your client talks about a disease that sounds something like "mer-suh." Sometimes she calls it "C-A mer-suh," other times it's "H-A mer-suh." Then she talks about something called "ick-ack" and the IDSA. She discusses the need to focus a portion of the slides on empirical treatment of SSTIs and to incorporate new prevalence information from a recent MMWR article at some point in the presentation.

Huh?

This previous scene isn't fictional. It actually happened to me when I took on my first project in infectious disease. I had been working as a freelance medical writer for several years, yet I was a newbie in this therapeutic area and didn't know the lingo. You might not want to hear this, but in the field of medical writing each therapeutic area has its own unique jargon (that means verbal or written shorthand) and terminology. And that's jargon with a capital J.



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Let me give you one example. The acronym CA means *cancer* to an oncologist (that's a cancer specialist), but to an infectious-disease doctor it stands for *community acquired*.

Here's another example. The acronym ED means *erectile dysfunction* (think Viagra®) to the urologist, but to the physician working in the emergency room, it means *emergency department*.

Those are just two examples, but you get the idea. The meanings change depending on the therapeutic area in which you are writing. And if you're talking about erectile dysfunction when your client's talking about something entirely different, it can be quite embarrassing.

So although I was familiar with the terms and abbreviations for the fields in which I had been working—cardiology, rehabilitation, and women's health—I was rather ignorant when it came to communicable diseases. Not having any background information before the conference call made it even more of a challenge.

You've probably already been in the situation where you talk to your doctors or other health care professionals and they sound as though they are speaking in a foreign language. It's common, and folks in the medical profession are notorious for using jargon that a layperson can't interpret.

Even though I had a quasi-medical background, when I first began working in a hospital I was confused. (You can read more about my background in our book, *The Accidental Medical Writer*.) Sitting in the cafeteria, I listened to conversations that were peppered with acronyms and abbreviations. The nurses and doctors were using jargon as though their lives depended on it. Instead of saying high blood pressure, they said hypertension; for high cholesterol, they substituted hypercholesterolemia. The person in charge of seeing that patients' services were covered by third-party insurers talked about

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HMOs, PPOs, CPT codes, and ICD-9.

The field of biomedical communications is no different. That's why having a great medical dictionary is important. Even more so, though, is the need to have a clear understanding of some of the unique medical writing terms and acronyms you'll encounter. Because as I learned in that first infectious-disease discussion, feeling ignorant does not promote confidence in your skills, no matter what industry you're working in.

That's the purpose of this book. When my business partner, Brian, and I were discussing topics for books in our series, we knew from past experience that it would be important for aspiring medical writers to have a reference source that accomplished two purposes. First, it introduced them to certain terms that are unique to medical writing and the health care and pharmaceutical industries in general; and secondly, it defined acronyms and abbreviations in numerous therapeutic areas. Now that I think about it, there's a third purpose, too. We want this book to give you tools to enable you to figure out unfamiliar terms when you encounter them. We've filtered through the multitude of resources out there so that we can point you to the ones we consider to be useful.

This book is not a reference on English grammar and usage. There are already many excellent sources on that subject (see the resources section at the end of this book for some titles). Nor is this book meant to be a medical dictionary. Browse the shelves of your local bookstore and you can see just how many medical dictionaries already exist.

This book is meant to serve as a tool so that when your clients sound as though they are speaking Greek, you can figure out what they're saying.

And in case you're wondering about the title, nude mice do exist.

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They're specially bred rodents that are missing their thymus glands. And nude they are; they have no hair or fur on their little rodent bodies.

The first time I came across the term was early in my career when I was editing preclinical study reports for a major pharmaceutical company. I was sure the writer had made a mistake until I looked up *nude mice* in one of my handy-dandy reference books and learned that these little guys are widely used in cancer research. Pretty cool, huh?

## The Types of Terms Medical Writers Need To Know

**D**espite the term *medical* in the phrase *medical writing*, when you work in this field you won't be writing exclusively for medical professionals. Does that surprise you?

Depending on your niche and expertise, in addition to doctors, nurses, and other health care professionals, you might be writing for a lay audience (that's the common person), hospital purchasers, manufacturers and users of medical devices, pharmaceutical sales representatives, members of the insurance industry, or individuals who create and enforce public policy. That's a very broad range, and each of those groups will bring with them a distinct set of terms as well as the associated acronyms and abbreviations. To do your job well, you'll need to have a basic understanding of the language that's unique to each segment. Why? Because the more you know, the more marketable you'll be.

So not only will you need to understand medical terminology, you'll also need a working knowledge of terms related to:

- Health care
- Insurance
- Business and marketing
- Education

You see, medical writing is really not one distinct genre, but one with a very broad scope and multiple components. In my opinion, medical writing falls into 3 broad categories: regulatory, promotional, and educational.

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Regulatory writing, a very scientific type of writing, involves translating complex information from clinical trials into technical reports, some of which will be submitted to the federal government. Included here are study protocols, Investigator's Brochures (which are distributed to the scientists who head up clinical trials), patient narratives, and, in some instances, manuscripts detailing the outcomes of clinical trials that will be submitted to medical journals.

Promotional medical writing encompasses any materials created to promote, or sell, a prescription drug, intervention, or medical device. These could be any of the multitudes of sales-training materials (in print and other media) that are used to teach sales representatives about how a new drug or device works and train them to sell it to prescribers. Target audiences for promotional materials are broad, and include the folks who sell the product, those who prescribe it, those who have influence on people who might prescribe it, and those who ultimately will cover the cost, either all or just a portion (third-party payers).

Into the educational category, I lump anything a writer creates for continuing medical education (CME) programs, including writing needs assessments, as well as the content for the actual CME programs. I also consider patient-education materials to be educational writing, since one of their purposes is to educate the consumer and family. I recognize that the ultimate goal of these materials may well be promotional, that is, to educate consumers to the point where they will ask their doctors to prescribe treatment XYZ; however, I classify them as educational, since they differ in style and tone from promotional pieces.

So you can see that the target audiences for whom you could be writing can be quite diverse. And that's why you need to be knowledgeable about more than just medical terms.

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Consider for a moment that you're writing website content for a site that will be used by members of the insurance industry. The topic is obesity, and coverage and noncoverage for obesity-related treatments. It's rather obvious that you'll need to become familiar with obesity terms (think BMI, body mass index, and that you'll have to get up to speed on the therapeutic options used to treat the condition (bariatric surgery, for example). However, because you will be putting this information into language that folks in the insurance industry can relate to, you'll also need to be familiar with insurance terms, such as beneficiary, cost-sharing, policy holder, member take-up, disease-management programs, fee-for-service, and so on. You'll probably also need to know about HMOs, PPOs, POS plans, HCFA, and CPT codes.

Here's another scenario. Let's say you're hired to write a few sections of a sales-training program for a new agent that treats children with attention deficit hyperactivity disorder, ADHD, which will soon receive approval from the US Food and Drug Administration (FDA). You're assigned to write an overview of the current marketplace and describe the key competitors of the product. You're expected to discuss market penetration for these agents and include sales figures for the past 5 years. Some terms and acronyms that will likely appear in the background material you'll use to write this section would be formulary, first tier, SWOT, Verispan, ICD codes, and market share.

Since physicians will prescribe this product for children who will likely also have special learning needs, you might need to know educational terms, such as LD, NCLB, and IEP.

Each section (sometimes called a module) of a sales-training program begins with learning objectives (here's where you move even more into that educational realm), so you'll need to know how to write clear and measurable ones. (Hint: "appreciate the benefits of extended-release pain medications" would not be an acceptable learning objective since

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you can't objectively measure or observe one's appreciation. However, changing the verb from *appreciate* to *identify* or *list* makes the learning objective measurable and observable.) There's also a pretest assessment at the beginning of each module and a posttest assessment at the end, so being able to write test questions is something you'll need to be able to do.

And you thought all you'd need to know were medical terms! Not likely. Before you panic, throw your hands up in despair, and decide that medical writing is not for you, take a deep breath and calm down. You can do this. How do I know? Because I did.

Sure, I had a bit of a science background when I entered the field. Well, at least I had great knowledge of head and neck anatomy, given that I was a speech-language pathologist. Plus I had a basic understanding of health care terms, in particular rehabilitation lingo, since I had worked in hospitals for more than 10 years. But that was it. Once I moved out of familiar therapeutic areas, my knowledge was nil.

How did I get to the point where I was able to understand what I was writing about? I'll let you in on a secret. It was all on-the-job training. I did a lot of asking, reading, and researching when I started out in this field. If someone used an acronym I didn't know, I asked them to define it. If I came across a medical term I didn't know, I cracked open the medical dictionary and committed the definition to memory. I taught myself the meanings of medical suffixes and prefixes so that I could decipher unfamiliar terms. But most important, I surrounded myself with good reference books and developed relationships with experts from whom I could learn.

And you know what? After more than 16 years in this business, I'm still learning. I recently had to question a physician about the abbreviation, EBL. He had added it to a slide deck I was creating with him as part of a CME program. I just could not figure it out given the context in which

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it appeared. So I wrote him a very nice email and asked him to define it. He was using it to mean *estimated blood loss*. I never would have come up with that. I'm glad I asked.

This book is a great resource for you to have as you prepare yourself for success as a freelance medical writer. Even if you have some medical writing experience under your belt, you'll find this to be a user-friendly reference that will provide you with a good foundation on which to learn more.

In the sections that follow, we'll start off with a brief introduction to medical terminology, and then move into specific medical terms, acronyms, and abbreviations. I devote a lengthy chapter to terms you won't necessarily find in a medical dictionary; they are a combination of medical, health care, insurance, marketing, and writing/publishing terms, such as 510(k), detail aid, and fair balance, to name a few. I've also included chapters on troublesome combinations, body systems, bacterial terminology, Greek letters, and the hierarchy of footnotes. The final section includes a listing of additional useful resources.

That's one of the features of *The Accidental Medical Writer* series. Every book we write has a listing of resources we use frequently. It took us years to find these resources. We include them in our books to save you the time. And because the field of freelance medical writing isn't static, we're finding new resources every day.

Keep in mind that in this book I haven't defined every term you're going to need to know. After all, the 27<sup>th</sup> edition of *Dorland's Illustrated Medical Dictionary* is 1888 pages long. And that's medical terminology alone. I doubt you'd wade through the book you have in your hand now if it was that lengthy. Always consult a medical dictionary, style guide, or other reference manual when you're unsure of something.

Are you ready? Let's go.



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