

Chapter 10

A Writer's Attic

A book of this type needs a miscellaneous chapter—a place to put all the odd pieces that don't fit the previous chapter headings, an attic to hold all the gee-whiz things just too good to discard. This is that chapter.

What Was America's First and Oldest Medical Journal?

This is a trick question. The *first* medical journal in America was *The Medical Repository*, debuting in print in 1797. There were three original coeditors: Elihu H. Smith, Samuel L. Mitchill, and Edward Miller. T & J Swords, affiliated with Columbia College in New York City, was the printer. Although there were some interruptions, *The Medical Repository* continued to be published until 1824 [1].

America's *oldest* medical journal in continuous publication is the *New England Journal of Medicine* (NEJM), which began in Boston in 1812 as the *New England Journal of Medicine and Surgery and the Collateral Branches of Medical Science* (see Fig. 10.1). John Collins Warren and James Jackson were the founding editors. In 1828, the publication became the *Boston Medical and Surgical Journal*. Then in 1921, the Massachusetts Medical Society, for the grand sum on \$1, purchased the journal, and renamed it the *New England Journal of Medicine* [3].

In a sense, the earliest American journals were emulating medical journals that had existed in Europe for a century. Generally regarded as the first medical journal in the Western World, *Le Journal des Sçavans* was first published in France in 1665, followed later that year in England by *Philosophical Transactions* [4].

It didn't take long for medical and scientific journals to proliferate. At the beginning of the nineteenth century there were approximately 30 scientific journals, and a hundred years later the number had grown to more than 700 publications for the medical and research community.

THE
NEW ENGLAND JOURNAL
 OF
MEDICINE AND SURGERY.

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REMARKS ON ANGINA PECTORIS.

BY JOHN WARREN, M. D.

IN our inquiries into any particular subject of Medicine, our labours will generally be shortened and directed to their proper objects, by a knowledge of preceding discoveries.

When Dr. Heberden, in the London Medical Transactions, first described a disease under the name of Angina Pectoris, so little had it attracted the attention of physicians, that much surprise was excited by the communication. From the most striking and distressing symptoms, with which it was attended, pain and stricture about the breast, it received from him its denomination; and he soon after published farther remarks on this subject, with the history of a case and appearances on dissection.

That all the cases which this author had noticed as accompanied with affections of a *somewhat similar nature*, were instances of true Angina Pectoris, is by no means probable; for not less than one hundred of those were supposed by him to have fallen under his observation. Of those, three only were women, one a boy; all the rest were men, and about the age of fifty.

In the same work were communicated some observations on this disease made by Dr. Wall, who likewise added a case of dissection.

Dr. Fothergill, in the fifth volume of the London Medical Observations and Inquiries, 1774, published his remarks upon An-

VOL. I.

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Fig. 10.1 Cover of the first edition of the *New England Journal of Medicine and Surgery*, 1812 [2]

What Was the Most Remarkable Feat of Medical Writing (in More or Less Modern Times) and What Is Also Remarkable About the Title?

My vote would be for *The Principles and Practice of Medicine*, written single-handedly by Sir William Osler and published in 1892. In my opinion, it was the “*War and Peace*” of medical writing, of epic scope (and heft). Osler’s book survived through many editions until 2001, although it eventually became an edited volume with many contributors [5]. A later competitor was the *Cecil Textbook of Medicine*, edited by Russell Cecil, MD, and initially published in 1927. But Cecil relied on many contributors to accomplish what Osler had done on his own. I recently noted a copy of Osler’s first edition offered for sale on line for only \$4750 [6].

As an aside, Osler was not the first to use the title *The Principles and Practice of Medicine*. That title was previously that of a book by English physician and author John Elliotson, first published in England in 1839 (see Fig. 10.2). Elliotson was a member of the Royal College of Physicians, a friend of Charles Dickens, and a strong advocate of mesmerism [8]. Is borrowing a title of a book published a half century before a breach of ethics? The US copyright laws think not, unless there is “a significant amount of original expression,” a phrase which, like “fair use” (of borrowed material), is not clearly defined. Today, if I wanted to title my next book using the same words as Elliotson and Osler, I could do so with reasonable confidence, but not if my next book were titled, for instance, *The Lord of the Rings* or *The Da Vinci Code*, both of which seem to have a good deal of “original expression” [9].

Has There Been a Recent Change of Focus in Medical Journals?

The change has been subtle, and I had not noticed the shift in emphasis until I read the article by cardiologist Wes Fisher appearing on the website Kevinmd.com/blog. The title of Fisher’s article tells it all: “Medical Journals Are Shifting From Science to Politics” [10].

The author uses as his example the NEJM, considered by the *New York Times* to be the “most prestigious” of all medical journals [11]. He compares articles from his latest issue of the NEJM to those printed a decade before, finding a remarkable shift from an emphasis on scientific discoveries to a focus on sociopolitical topics.

This prompted me to look at the Table of Contents of my recent issues of NEJM and the *Journal of the American Medical Association* (JAMA). I found some purely scientific reports on the transfusion threshold in septic shock (NEJM), glycemic control in type I diabetes (NEJM), and comparative weight loss among named diet programs (JAMA), all containing information important to me as a generalist physician.

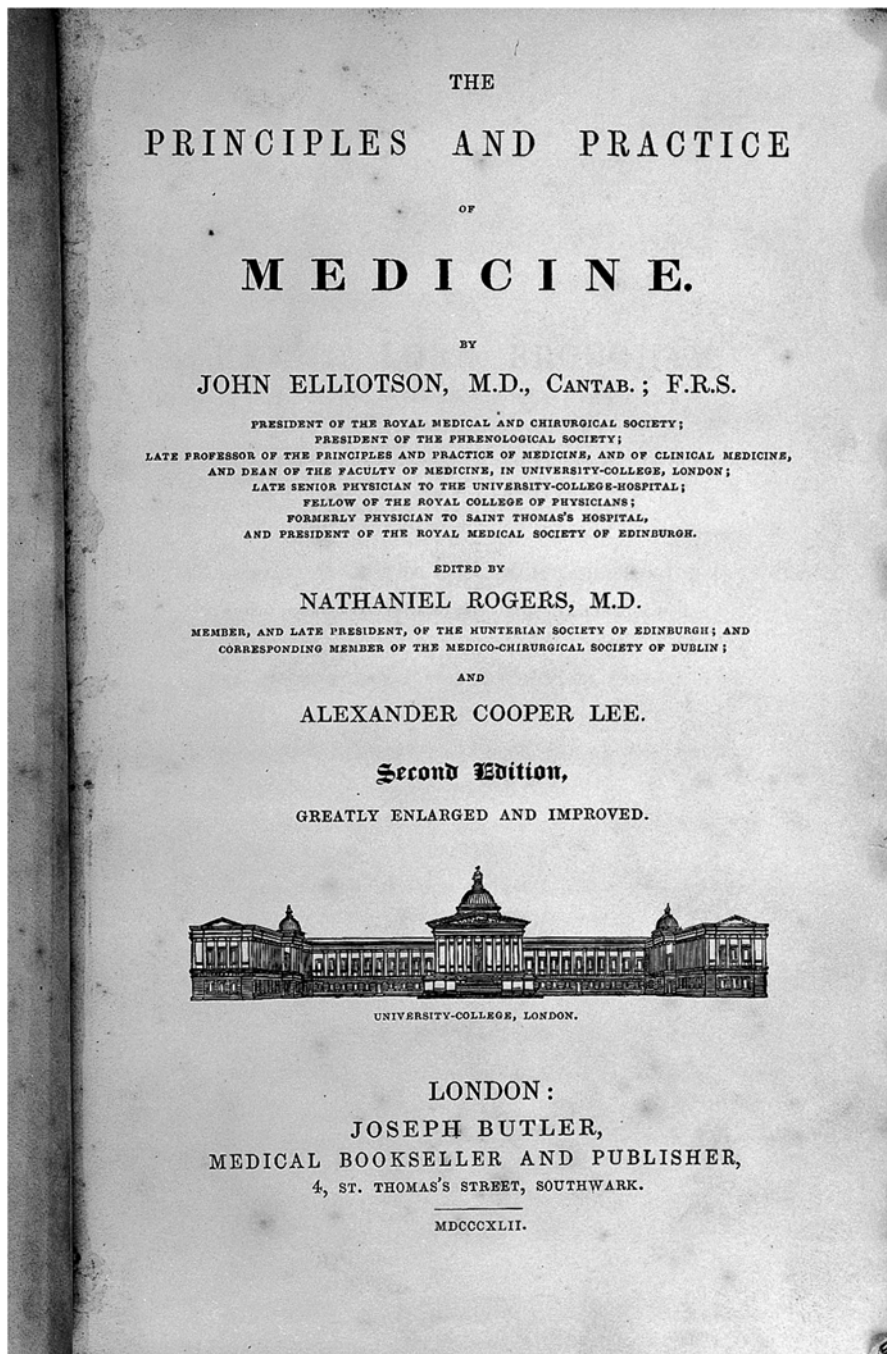


Fig. 10.2 Title page of *The Principles and Practice of Medicine*, 2nd edition, by John Elliotson, 1842, published a half century before Olser's book of the same title [7]

But in my same journals I encountered articles on calorie labeling in restaurants, barriers to physician reimbursement, life insurers having access to genetic results, diversity in medical education, hospital relationships with direct-to-consumer screening companies, government regulation of portion size, the blockade of Medicaid, and the inevitable debates about the Affordable Care Act.

Why the change? Certainly the shifting focus reflects the increasing impact of economics and regulations on the process and outcome of health care. Any health care system is profoundly influenced by what doctors and other professionals are allowed to do and how they are paid for doing it. On all of these issues and more, the sociopolitical articles in our most influential “scientific” journals inevitably reflect a viewpoint. That is what op-ed articles do. But who determines what is published and the viewpoint reflected?

And, for those involved in treating actual sick patients, every political opinion article printed means another clinical trial report not published and read by those in practice. For medical writers, it is one more op-ed piece and one less research report.

What Is an “Authorism” and Is This Something Medical Writers Ever Do?

In the Introduction to this chapter I alerted you that it represented a potpourri. Hence I am going to shift from history and politics to a lighter topic: made-up words.

An “authorism” is a new word created, and sometimes championed, by an author. Authorisms are invented words that catch on because they seem to fill a need. Otherwise they don’t survive. Perhaps I am being restrictive, but I don’t consider a new word an authorism unless the creator of the term can be identified.

The word authorism seems itself, to be an authorism, the brainchild of Paul Dickson, who describes a number of such neologisms in his 2014 book appropriately titled *Authorisms: Words Wrought by Writers* [12]. One of the best known of these is the word “serendipity,” first used by Horace Walpole in a 1754 letter to his friend Horace Mann, alluding to the Persian folk tale of “The Three Princes of Serendip” (now called Sri Lanka). The princely trio had the facility of repeatedly making chance but happy discoveries. Dickson goes on to describe the words “pandemonium” (John Milton), “chortle” (Lewis Carroll), and “butterfingers” (Charles Dickens) as authorisms. My favorite: American scholar H.L. Menken, aka “the sage of Baltimore,” created the term ecdysiast, based on the word “ecdysis,” i.e., the process of shedding old skin, molting. This new word was his gift to famous strip-tease artist Gypsy Rose Lee (immortalized in the movie *Gypsy*), who sought a more elegant term to describe her role on stage [13]. The creation of the verb “neologize” has been attributed to President Thomas Jefferson, along with some 100 other words such as “pedicure” and “indecipherable” [14].

What About Medical Authorisms?

- **Ambidextrous and others:** In the seventeenth century, Sir Thomas Browne, author of *Religio Medici* (The Religion of a Physician), introduced dozens of new terms, many of them part of our current medical vocabulary. Among them are the words ambidextrous, ascetic, locomotion, prostate, and suicide [15, 16].
- **Vaccinate:** In 1796 Edward Jenner was the first to use the word “vaccinate,” a very reasonable term considering that the material he used to protect humans from smallpox came from a cow (*vacca* in Latin).
- **Streptococcus and Staphylococcus:** In the mid-nineteenth century, the word “*Streptococcus*” was coined by Viennese physician Albert Theodor Billroth, based on Latin and Greek roots and describing bacteria seen in “chains.” Billroth’s name is part of the today’s surgical lexicon, used to describe a gastric reconstruction procedure (see Fig. 10.3). About this same time, Scottish surgeon and scientist Alexander Ogston gave us a new word, “*Staphylococcus*,” coming from similar roots, and identifying bacteria seen occurring in clusters under the microscope [16].
- **Phantom limb:** The phenomenon of perceiving sensation, sometimes including pain, following amputation of a limb had been known as early as the time of Ambroise Paré in the sixteenth century, but it was not until 1871 that American physician and writer Silas Weir Mitchell created the authorism “phantom limb” [18].
- **Anesthesia:** William T.G. Morton introduced us to ether insensitivity to pain, but Oliver Wendell Holmes, Sr. gave us the word “anesthesia” [19].

Fig. 10.3 Albert Theodor Billroth, considered by some to be the father of modern abdominal surgery [17]



- **Microalbuminuria:** In 1964, Harry Keen, Professor of Metabolism at Saint Guy’s Medical School in London, introduced the word “microalbuminuria,” describing small amounts of albumin in the urine [20].
- **Gomer:** In his satirical description of hospital life, *The House of God*, published in 1978, psychiatrist Steven Bergman, pseudonymously writing as Samuel Shem, MD, gave us the medical slang word gomer, to describe a patient who “has lost—often through age—what goes into being a human being.” Gomer is, in fact, an acronym for “Get outta my emergency room,” and thus probably should be in all capitals—i.e., GOMER—just like SCUBA and AIDS. Two of the Laws of The House of God are [21]:
 1. Gomers don’t die; and
 2. Gomers go to ground.
- **Diabesity:** “Diabesity,” the combination of diabetes and obesity, entered our vocabulary with the publication of the book by Dr. Francine Kaufman titled *Diabesity: The Obesity-Diabetes Epidemic That Threatens America—And What We Must Do to Stop It* [22]. A current Google search of the word “diabesity” yielded several dozen sites; Kaufman’s neologism seems to have “stuck.”
- **Singularity:** Also in 2005, futurist author Ray Kurzweil coined the term “singularity” to describe the time when humans and computers will merge as one through the addition of technological advances, such as tiny nanobots, to our brain function [23].
- **iPatient:** In 2008, American physician Abraham Verghese gave us the freshly minted word “iPatient,” to describe the virtual patient discussed by students and residents while viewing online laboratory reports “in the bunker while the real patients keep the beds warm and ensure that the folders bearing their names stay alive on the computer” [24].

Not all attempts at medial authorism are successful. Some are proposed, but never really catch the fancy of the medical writing community. Consider the following:

- **Balneation and others:** Sir Thomas Browne, mentioned above, proposed some words that aren’t often encountered today: “balneation” (bathing), “moratin” (a delay), and “pistillation” (to grind with a pestle) [15].
- **Homogenic:** In Chap. 8, I told of British physician-author Havelock Ellis who wrote on homosexuality, but deplored the term, preferring the word “homogenic.” Today we sometimes use the word “homophobic,” but “homogenic” today has another meaning entirely. It is used in genetics to mean “having only one alternative form, or one allele, of a gene or genes” [25].
- **Journalology:** The term “journalology” is the brainchild of former *British Medical Journal* editor Stephen Lock [26]. The word describes the use of biometrics to evaluate journals, and has to do with the impact factor, described in Chap. 3. The word “journalology”, however, has no entry in Dictionary.com, and I can’t say I have ever heard it used in conversation.
- **Neosyndrome:** Just below, I use this term. I just made it up. Time will tell if anyone uses the word again.

What Is the Role of the Neosyndrome?

This, the word “neosyndrome,” is a neologism, an authorism I created just for fun. I could not find it in any dictionary, my MS Word Spellchecker rejects it, and a Google search comes up empty. It designates a newly described syndrome, which may be a recently recognized constellation of symptoms and signs, or perhaps a descriptive title for a behavioral or physical manifestation we all know. Some neosyndrome names involve place names, or activities, or even the names of patients. Some involve irony and wicked wit.

- **Little League pitcher's elbow and more:** Among the diseases named for activities are “little pitcher's elbow,” “silo-filler disease,” “gamekeeper thumb,” “tennis elbow,” and “welder's conjunctivitis.” “Saturday night paralysis” occurs when an alcohol sedated individual sleeps with an arm over the armrest of a chair or the back of a park bench, sustaining a radial nerve palsy. When garment workers return after a weekend to a factory with the air laden with cotton dust, they may suffer “Monday morning asthma.” Then there is the “Sleeping Beauty syndrome” (a pathologic sleep disturbance). Sometime, somewhere, someone thought up all these descriptors. All were once freshly described neosyndromes.
- **Christmas disease:** In 1952, Biggs et al. told of a new type of bleeding disorder—Christmas disease—named for the first patient described with the hematologic abnormality, Stephen Christmas [27]. Were editors indulging their sense of humor when the article appeared in the *British Medical Journal* Christmas issue? The eponymous title of the disease has endured. But would it have been so if the index case had been John Jones or Mary Smith?
- **Alice in Wonderland syndrome:** The term “Alice in Wonderland” syndrome describes perceived alterations in body image sometimes seen with migraine or epilepsy; it was first used medically in 1955 by British psychiatrist John Todd, alluding to the well-known Lewis Carroll book *Alice's Adventures in Wonderland* [28] (see Fig. 10.4).

Fig. 10.4 In the “Alice in Wonderland” syndrome, the patient experiences distorted perceptions of body images [29]



- **The Ulysses syndrome:** We have an entire universe of iatrogenic syndromes caused by therapeutic misadventures. The Ulysses syndrome, first described by Rang in 1972, is different. It is a side effect of investigation, and also might be identified as the “laboratory error syndrome” or the “top/bottom of the bell curve syndrome.” The non-disease begins with the discovery of an unanticipated abnormality on a laboratory panel or roentgenogram. This prompts a return visit to the doctor, who dispatches the healthy patient on an odyssey of unnecessary testing, imaging, and perhaps scoping. The most serious risk of being the victim of the Ulysses syndrome is not the wasted time and money, but the very real possibility that the investigation might culminate in needless therapy or even invasive surgery [30].
- **Legionnaires’ disease:** Legionnaires’ disease was so named because the index cases were American Legion members all staying in the Bellevue-Stratford Hotel on Broad Street in Philadelphia in July 1976. The disease, of course, has no other connection with this respected veteran’s organization, and I suspect its members wish the new disease had been named something else, perhaps the Bellevue-Stratford disease. But it may be too late to call it Philadelphia disease.
- **Kabuki syndrome:** “Kabuki syndrome,” described by Kuroki in 1981, takes its name from the facial similarity of patients to the makeup of actors in traditional Japanese Kabuki Theater. Those afflicted have large ears, elongated palpebral fissures, a depressed tip of the nose, skeletal abnormalities, and mental retardation [31].
- **SARS:** In 2003, we witnessed the emergence of severe acute respiratory syndrome (SARS), which began in China, and, thanks to the miracle of modern air travel, eventually killed 775 persons in 37 countries. The name given hastily to the manifestations—severe acute respiratory syndrome—was not especially inventive, or even descriptive of the geographic or other locus of origin.

In April 2014 the USA recognized its first case of another acute pulmonary disease, named the Middle Eastern respiratory syndrome (MERS) [32]. The infected individual had recently returned home to Munster, Indiana, from Saudi Arabia. Both SARS and MERS are neosyndromes, as was the acquired immunodeficiency syndrome (AIDS) in the 1980s.

- ***Borrelia miyamotoi* disease:** Lyme disease, caused by *Borrelia burgdorferi*, is named for Lyme, Connecticut, where a cluster of cases occurred in 1975. Now we have a new disease, caused by a cousin of *B. burgdorferi* named *B. miyamotoi*, detected first in Connecticut and subsequently found to be spread by all the same tick species that are the vectors for Lyme disease [33]. “*Borrelia miyamotoi* disease” is much too cumbersome a title for continued use, and so this new disease is a naming opportunity for someone.
- **Philadelphia syndrome:** In searching for neosyndromes, I came to the 2013 description of a mystery ailment affecting chiefly young women in the Philadelphia area, characterized by sudden personality changes, uncontrolled movements, and seizures. Physicians report, “It is like your brain is on fire” [34]. Will this entity, in time, come to be known as “Philadelphia syndrome?”

- **PCHD:** In the wicked wit category is “political correctness hyperactivity disorder (PCHD),” a neosyndrome concept promulgated by Martin in a letter to the editor in the *Wall Street Journal* describing America’s current state of political affairs [35]. The author writes, “What we have before us is a postmodern magisterium of secular doctrine, affected with political correctness hyperactivity disorder (PCHD) and fueled by a utopian ambition that see no limits to its quest for power in the guise of public service.”

I Just Received an Unsolicited E-mail Invitation to Edit a New Medical Reference Book. I Have Never Heard of the Publisher Before. Would This Be a Good Career Move?

In Chap. 5 I described predatory publishers soliciting manuscripts for open-access journals whose chief goal was to extract publication fees from authors of scientific papers. There is a related online scheme to rob you of something more valuable than a few dollars—your reputation in the scientific community. What they want is your good name.

Recently I also received an “out-of-the-blue,” e-mail request to edit an ebook titled *Current Developments in Stroke*. This would seem to be a great honor. Finally someone recognizes my many valued contributions to the medical literature. Even though my “plate” is full, who could refuse such an opportunity? I would receive a 5 % royalty on sales, and all I would have to do is to “solicit chapter contributions from active, eminent scientists, largely from developed countries, with a focus on an important theme of current interest” [36]. I would then presumably correct all errors, arrange the chapters in an orderly folder on my computer, and send them on to the publisher. Did I mention that this proposal describes not a single work, but an entire ebook series?

My first hint of something amiss was the topic proposed. I have written more than 30 medical books and some 200 published papers, including a few articles on the topic of migraine headache. But I am certainly not an expert on stroke, nor am I a “scientist.” Thus, despite my editing experience, I seemed an odd choice to edit a work on stroke.

Then there was the publisher, which I will not name here. A quick Google check revealed that this publisher has its home offices in Sharjah, one of the emirates of the United Arab Emirates, and that it publishes more than 100 “scientific” journals and offers a number of free-to-view online publications. Perhaps nothing too alarming so far. But the publisher has its critics. A Wikipedia search on June 1, 2014, cites reports of this same publisher “spamming scientists to become a member of the editorial boards of its journals,” and having “exploited the Open Access model for its own financial motives and flooded scholarly communication with a flurry of low quality and questionable research” [37].

I did not reply to the publisher's invitation and I advise even the most desperately aspiring medical writer to do the same. Don't say no (and thus confirm your e-mail address for them); just delete the message. Sad to say, there are some—just a few—less than honorable individuals in medical publishing, and the medical writer must always exercise due diligence with any offer, especially if it seems just a little too appealing. And maybe slightly off the mark.

I Have Received an Offer from a Well-Known, Prestigious Medical Publisher to Compile an Edited Reference Book in an Area in Which I Have Published Often. This Seems a Perfect Fit for My Abilities. How Should I Approach This Offer?

This offer is quite different from the one described just above, and it merits careful consideration, even if your eventual decision is to pass on the opportunity.

Over the past 40 years, I have edited some 15 multi-author medical reference books, 6 of them containing more than 1000 pages. I have coaxed and threatened authors. I have heard every tardiness excuse you can imagine—including one manuscript washed away in a flood. One author flagrantly lied to me for months, "My chapter is almost done; I'll have it to you next week." It never arrived. At manuscript submission time, another author exclaimed, "You weren't really serious about deadlines, were you?" I have suffered warring coauthors, and have had authors whose lives fell apart or even, unfortunately, died during manuscript preparation. I have done some very heavy editing on poorly written chapters, and not all authors were thrilled with my changes. Being the editor of a multi-author book is not for the faint of heart.

On the other hand, medicine needs courageous individuals willing to compile multi-author works. Every specialty needs a few of these. Today, with electronic manuscript preparation, submission, editing, proofreading, and even online revising when errors are found following publication, things are much easier than in the past. No more manuscripts "lost in the mail" or washed away in floods. And there are few things as thrilling as seeing your own multi-author work come together and be published. Now, if only authors could just get their contributions in on time.

If you decide to become a volume editor of a reference work, here are Dr. Taylor's ten rules to guide you to a timely, rewarding conclusion [38]:

- **Personal planning:** Organize your personal schedule as you plan the project. An edited book is not a steady effort. There are three very time-intensive phases; in between there are quiet times. The busy stages are (1) author recruitment, (2) manuscript editing, and (3) proofreading of book pages. These will not be good times to book a month-long ocean cruise.

- **Author selection:** Choose the author for each chapter with care. Match each author with a topic that he or she wants to “claim” in the literature. Even if you, the editor, are not well known, the prospective author will often agree to write the chapter, because that person knows that a refusal means you will offer the topic to someone else.
- **Recruiting authors:** Be firm in recruiting only authors committed to the project. An eager assistant professor may, in the end, be a better choice than the already over-committed senior faculty member. In the end, a late contributor responsible for a “must-have” chapter can delay the entire project. Early warning signs of potential tardiness in manuscript delivery are initial hesitation about the project, a long discussion about the many projects your possible author already has committed to do, and early attempts to negotiate a later deadline for manuscript submission. If you sense any of these “red flags,” it might be best to go on to someone else.
- **Instructions to authors:** Provide crystal-clear instructions. Often the publisher has generic *Instructions to Authors*. You should consider creating your own supplementary instructions. For example: Do you want each chapter to begin with a quotation from Shakespeare or Osler? How many illustrations—if any—do you want in the chapter? How many reference citations are desired?
- **Page allocations:** Be very specific in your page allocations. If you tell the author you want, for example, a chapter of 20 manuscript pages, do you mean single-spaced or double-spaced pages? And does your page allocation include the Reference list at the end of the chapter, which can run to several manuscript pages?
- **Overwriting:** Beware of authors’ tendency to write too many pages, even in spite of instructions any high school student could understand. It is hard to believe, but most authors tend to overwrite. Adding a few pages to the desired chapter length might not seem to be important, that is, until 50 or 80 or 100 authors all exceed page allocations, and the final book becomes a heavy tome. This has happened to me, as I described in Chap. 7.
- **What you do and don’t want in the manuscripts:** Tell your authors your wishes about other things that may find their way into manuscripts: Do you want footnotes, or should all material be presented in the text? Would an Appendix to the chapter be acceptable? Will it be okay if authors thank their administrative assistants, spouses, or mentors?
- **Reminders:** Remind all authors monthly of the project. A real danger is that contributors forget about their chapters. After all, you gave the author a 6-month deadline, and so a natural tendency is to delay writing, focusing on more urgent issues such as teaching or seeing patients. Then, in a few months, the chapter you are counting on has become hazy in the author’s memory. The way to avoid this is to send monthly reminders to all contributors. I tend to vary these: e-mails 1 month, postcards the next, letters the next, and so forth.
- **Following through:** After the edited work is published, be sure to thank your authors and confirm that each has received the promised copy of the book. If you promised authors a small fraction of the book’s royalties (a practice which I do

not advise), be sure this pittance is received. Fractional royalties due contributors represent tiny payments; but there will be many of them, and the publisher's accounting department hates this practice. Nevertheless, if you made such a promise, be sure the publisher follows through.

- **Looking to the future:** Following publication, keep in touch with those who wrote for you, perhaps sending them copies of the book's glowing reviews. After all, you may want these authors to update their chapters in a few years or contribute to your next edited book.

What Are Some Classic Gaffes in the Medical Literature?

In Chap. 4, I described the Dizzy Awards, some slightly confusing contributions to the medical literature, and also the typographical, grammatical, and omission errors that somehow emerged in print. Here is another group of literary misadventures, some I consider to be more entertaining than simple obfuscation or misprints. These typically are wrong-headed misstatements and even ill-fated predictions. Wise medical writers keep in mind that what goes into print today may sound ridiculous when read back to you a few decades in the future.

Pierre Pachtet was Professor of Physiology at Toulouse University in France and highly respected in his day. In 1872, however, he declared [39]:

“Louis Pasteur's theory of germs is ridiculous fiction.”

Benjamin Rush, sometimes called the “American Sydenham,” was professor of chemistry at the Philadelphia Medical School, later to become the University of Pennsylvania Medical School. He wrote America's first chemistry book. Rush was an American patriot who signed the Declaration of Independence and served as Surgeon General of the Continental Army. But in 1796, he declared [40]:

“I have formerly said there is but one fever in the world. Be not startled, Gentlemen, follow me and I will say there is but one disease in the world. The proximate cause of disease is irregular convulsive ... action in the [vascular] system affected.”

JAMA has an engaging column titled “JAMA Revisited,” transcribing verbatim articles published in the distant past. (I would enjoy the column even more if the original authors were identified more often.) My small criticism notwithstanding, I read it regularly and was amused by an article on bicycles, published in the August 15, 1896, issue of JAMA [41]:

“The esthetics and morality of bicycling do not come within the professional ken of the physician. A costume and posture which make ninety women in a hundred absurd spectacles will not long be popular with the thousands and tens of thousands of that fair sex as today ... It is enough for us to declare that a woman, especially an adolescent girl, can not be suspended on the summit of a wedge without injury to the structures above, and the deformation of the pelvis; and that the bruising of the flesh, which some riders unwillingly admit, and the craving for stimulants after a fatiguing ride, ought to restrain the prevailing indiscriminate and intemperate use of the vehicle.”

One of my favorite medical writers is Félix Martí-Ibáñez, medical writer and professor of the History of Medicine at the New York Medical College. Despite the erudition exhibited in his many works, including two quotations found in Chap. 9, in 1958 Martí-Ibáñez made the following prediction [42]:

“The profound change that is taking place in the natural history of infections warrants the prophecy that by the year 2000 the diseases caused by bacteria, protozoa, and perhaps viruses will be considered by the medical student as exotic curiosities of mere historical interest, as is the case today with tertiary syphilis, gout, and smallpox.”

Baby and Child Care, the book by Benjamin Spock, influenced how many of us were raised. At the time of the early editions, Spock and the world of medicine were not yet aware of the sudden infant death syndrome (SIDS). Thus, in the 1958 edition of his book, Spock was simply being logical when he advised that infants not sleep while placed on their backs: “If (an infant) vomits, he is more likely to choke on the vomitus” [43].

In 1988, a molecular biology professor at University of California, Berkeley, is reported to have described the human immunodeficiency virus (HIV) as “a pussycat” [39].

How Often Are Medical Articles Retracted?

In Chap. 7, I described the fiasco of Andrew Wakefield’s article, subsequently retracted, attempting to link childhood immunizations to developmental disorders. There have been many other retractions:

The *International Journal of Cardiology* has retracted a review article on pulsus paradoxus by Abu-Hilal et al. because “the authors have plagiarized part of a paper that had already appeared in *History of Medicine Online*” [44]. I followed the link to the 2006 victimized paper, a nice article by Woo et al. titled “Remarkable Physicians Associated With Pulsus Paradoxus, The Classic Sign—Richard Lower and Adolf Kussmaul” [45].

In July 2014, *Nature* issued a retraction of two papers it had published earlier in the year by Haruko Obokata et al. in Japan. The papers described an amazing breakthrough: creating embryonic-like stem cells from bodily cells by subjecting them to stress. Perhaps a little too amazing. The report of the retraction states, “The retractions—agreed to by all of the co-authors—come at the end of a whirlwind 5 months during which various errors were spotted in the papers, attempts to replicate the experiments failed, the lead author was found guilty of misconduct, and the centre where she is employed was threatened with dismantlement” [46].

Steen et al. report a study of 2047 retracted scientific articles, which I find a very large number of discredited reports. They looked at the time to retraction from the date the article was published, finding that the more recently published articles are being retracted quicker, although the average retraction time for articles published

after 2002 was still 23.82 months. (It seems *Nature*, as described above, acted with lightening speed.) Of interest was the finding that from 1993 to 2012, single-retraction authors wrote 63.1 % of retracted papers. In contrast, from 1972 to 1992, authors with a single retraction wrote 46.0 % of retracted papers, suggesting that during that earlier time there were more authors with multiple retractions. Steen et al. also note: “The first article retracted for plagiarism was published in 1979 and the first for duplicate publication in 1990, showing that articles are now retracted for reasons not cited in the past” [47].

Has There Ever Been a Fake Scientific Journal?

Yes, there have, in fact, been six fake medical journals. And that is just the ones we learned about. Here I am not writing about the open-access, “scan and spam,” online predatory publications described in Chap. 5. By “fake scientific journals” I mean bogus, false, phony publications with a nefarious purpose, an intent even more egregious than convincing authors to pay for meaningless “publication” of their work. The goal for the fake journals was to introduce biased reports about pharmaceutical products into the literature. The hoax was perpetrated by an alliance of pharmaceutical companies and a cooperative journal publisher. Here is the story, and to be sure I am on sound legal ground, I am going to quote my sources liberally.

In 2009, Grant reported: “Scientific publishing giant Elsevier put out a total of six publications between 2000 and 2005 that were sponsored by unnamed pharmaceutical companies and looked like peer reviewed medical journals, but did not disclose sponsorship, the company has admitted” [48]. The author of the article goes on to describe one of the “journals”: “The allegations involve the *Australasian Journal of Bone and Joint Medicine*, a publication paid for by pharmaceutical company Merck that amounted to a compendium of reprinted scientific articles and one-source reviews, most of which presented data favorable to Merck's products” [48].

In confirmation of the report by Grant, Huag, writing in the *New England Journal of Medicine* in 2013, told readers: “Until recently, ‘international, scientific, peer-reviewed journal’ has had a fairly specific meaning to the scientific community and to society at large: it has meant a journal that checks submitted papers for scientific quality, but also for relevance and interest to its readers, and also ensures that it contains new findings that may advance science. These features render a journal trustworthy and worthy of readers’ time and money. Many observers were therefore understandably disturbed when the journal publisher Elsevier admitted in 2009 that it had published six ‘fake journals’ funded by pharmaceutical companies—in Elsevier’s own words, ‘sponsored article compilation publications ... that were made to look like journals and lacked disclosure.’ The company had intentionally exploited the word ‘journal’ to give the impression that these publications were honest and reliable” [49].

Will We Ever See Poems and Novels in Our Medical School Teaching and Clinical Practice?

I was prompted to consider this question by the words of nineteenth-century French physiologist Claude Bernard: “I feel convinced that there will come a day when physiologists, poets and philosophers will all speak the same language” [50] (see Fig. 10.5). Bernard, a pioneer of the scientific method and blinded experiments, promoted the concept of the *milieu intérieur*, what we now call homeostasis [52]. Before becoming a renowned scientist, however, he was an aspiring playwright, which may help explain his dream of universal interdisciplinary communication [53].

A century later, in his poem *Asphodel, That Greeny Flower*, William Carlos Williams wrote [54]: “It is difficult/to get the news from poems/yet men die miserably every day/for lack/of what is found there.” What can we make of this? Williams, I believe, was not saying that a lack of what is found in poetry causes men to *die*, but rather that their deaths are sometimes unnecessarily miserable for want of the imagery, joy, and even the cadence of poems. And perhaps also, by inference, a paucity of philosophical reflection. In my opinion, he was writing about the quality of life at the time of dying, and how it can be enhanced by metaphor, simile, allusion, and nuance of language and thought.

Fig. 10.5 French physiologist Claude Bernard, author of the book *Introduction to the Study of Experimental Medicine*, 1865 [51]



But, to return to Bernard, will we ever all speak the same language? I have written earlier in this book about the risks of creative prose in research reports. And isn't scientific language comprised largely of words that are polysyllabic, arcane, and derived from archaic Greek and Latin sources? These don't sound like the words of poets and philosophers. Or do they?

Poets speak of metre, caesura, iambic pentameter, alliteration, and (one of my favorite words) onomatopoeia. Philosophers speak of metaphysics and existentialism. Are these words any less inscrutable than words such as etiology, endothelial, musculoskeletal, prognosis, and other terms physicians use in their work and writings?

Ralph Waldo Emerson once called the poet "the true and only doctor," going on to explain about the poet: "He knows and tells; he is the only teller of news, for he was present and privy to the appearance which he describes. He is a beholder of ideas, and an utterer of the necessary and causal" [55]. But can the physician also have the heart of a poet? We seem to acknowledge this possibility by the inclusion of poetry and philosophy in many medical journals, and even on the program in some medical conferences.

Today many—perhaps most—medical schools offer courses that integrate medicine with literature and the humanities in general. In 1988, Calman et al. described one early course involving poems, plays, and books with both medical and non-medical themes [56]. In 2015, Stanford School of Medicine described their Arts, Humanities, and Medicine Program, offering "medical students, faculty, staff, and community members to explore the intersections between creative expression, humanities based critical inquiry, and value-driven social science with medicine and biosciences at Stanford" [57]. Now if we can only bring our diverse languages a little closer together.

What Is the Future for Medical Books, In Fact, Books of All Types?

Books will evolve. In the beginning they were hand-written, and later some were copied by scribes. Next came the printing press, with hand-set type. Production of books—actual paper books—became easier when everything "went digital," allowing many bound books now to be produced on demand; an order generates a printed book. Many books are currently read on *Kindle* and similar text readers. In fact, this book you are reading is available in print and also as an ebook. The future will bring new innovations. Maybe we will read books on our television sets, just as many of us now read the morning paper over breakfast. But whatever happens, the basic product will involve words that begin in the mind of an author and that, by some means, are organized into sentences, paragraphs, and completed works.

I Am Thinking About Becoming a Medical Writer. Are There Some Books and Websites That I Should Consult?

There are plenty of basic “how-to” books about medical writing, including one of mine (see below). Just search Google or Amazon. Among the many possibilities I have some favorites. Here I present seven diverse sources that may help someone considering medical writing as a serious endeavor. In the Appendix, there is also a list of books about language, sayings, writings, and the lore of medicine.

American Medical Writers Association Toolkit for New Medical Writers

The leading professional association of American medical writers, the American Medical Writers Association (AMWA), offers an informative website for aspiring medical writers. It is aimed at the person considering medical writing as a profession, rather than a health care professional contributing to the medical and scientific literature. But the topics discussed are, for the most part, important to all who consider themselves medical writers. These include types of medical writers, opportunities in medical writing, characteristics of successful medical writers, and resources available [58].

“A Writer’s Toolkit,” by Pories et al.

Pories and coauthors have given us a useful guide to writing in general, with a focus on down-to-earth, practical issues. They begin with a fundamental truism in writing: “The first step in any written scholarship is conceptualizing the scholarly project and establishing the importance of the topic.” They go on to describe the literature search process, electronic resources, defining the scope of the project, establishing a timeline, selecting a target journal, and tips on how to submit your work for review [59].

“How to Become a Competent Medical Writer?” by Sharma

If I had been writing Sharma’s title, I would not have included the question mark. But that minor criticism aside, I found this to be a comprehensive and readable overview of medical writing, which the author defines as “writing scientific documents of different types which include regulatory and research-related documents, disease or drug-related educational and promotional literature, publication articles like journal manuscripts and abstracts, content for healthcare websites,

health-related magazines or news articles.” In the article, he discusses types of medical writing, domain knowledge, steps in writing scientific documents, and available resources for medical writers [60].

“Been There, Done It, Got the T-shirt. The Life of a Medical Writer,” by Woodrow

When I interview medical school applicants, I like to confirm that they understand the life that lies ahead. Not just the supposed glamour, but the long hours, hard work, and occasional disappointments. Ryan Woodrow, the author of this slide program, is a writer for a medical communications company who tells how he got into medical writing, the typical qualifications of medical writers, and how to find the job that is right for you. He ends the presentation with: “Each day I am writing or communicating about something different, and in doing so I am learning something new. Who needs more than that?” [61].

Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals (ICMJE Recommendations)

The International Committee of Medical Journal Editors (ICMJE) “developed these recommendations to review best practice and ethical standards in the conduct and reporting of research and other material published in medical journals, and to help authors, editors, and others involved in peer review and biomedical publishing create and distribute accurate, clear, unbiased medical journal articles” [62]. The ICMJE recommendations are widely followed by journals, and any paper submitted that does not adhere to the advice given faces an uphill battle. Every medical writer aspiring to publication in a refereed scientific journal should be familiar with these recommendations.

Medical Writing: A Guide for Clinicians, Educators, and Researchers, 2nd Edition, by Taylor

Yes, this is my book. No list of recommended writing sources would be complete without listing a basic book in the field. Although written chiefly for an audience in academia, the book covers fundamental writing concepts such as idea development, article structure, technical issues in medical writing, and what’s special about medical writing. There are also chapters on how to write a research protocol and how to write a grant proposal [38].

Aequanimitas and Other Addresses, by Osler

The book is a collection of addresses that Sir William Osler “delivered at sundry times and diverse places in the course of a busy life” [63]. The flagship address, for which the book is named, is “Aequanimitas,” the word meaning “imperturbability,” described as “coolness and presence of mind under all circumstances, calmness amid storm, clearness of judgment in moments of grave peril” It was the Valedictory Address to the University of Pennsylvania on May 1, 1889. Other addresses presented in the book include Osler’s thoughts on “Teacher and Student,” “Books and Men,” and “The Hospital as a College” [63]. I include Osler’s book, which saw its first edition printed more than a century ago, as an example of what medical writing can be.

What Innovation May Change the Paradigm of Medical Publishing?

Keep your eye on ReadCube, created by Labtiva, a software program that provides users an economically realistic way to view individual scientific papers, rather than subscribing to the entire journal or wait for an interlibrary loan. The Nature Publishing Group (publishers of *Nature*), Springer, Elsevier, and other leading publishing houses have announced participation [64]. The program, at least at this writing, allows a reader to view the article, but not to print, copy, or share the content—a model that Weintraub compares to the iTunes sales approach [65]. The ReadCube prototype can be a useful first step in combating the access-to-published-reports problem that scientists regularly encounter. Stay tuned.

If You Could Give Advice to Young Writers, What Would It Be?

1. Read every day, both to learn facts and also to study the writing style of successful authors.
2. Write every day, even if you think what you wrote today is not your best work. You can improve it tomorrow.
3. Marry someone or find a partner who likes your writing—both the product and also your doing it.
4. Edit your own work ruthlessly. Eliminate excess verbiage and strive for prose that is clean and clear.
5. Have fun writing. It can really be a great joy.
6. Don’t worry about critical reviews; you know your work is good, even if it could be better.
7. Never give up. There is someone out there waiting to read your work.

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