IN THIS ISSUE

The Practice of Anesthesiology and Perioperative Care

Creating Effective Slides

AMWA's 70th Annual Conference
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➲ Address the membership’s professional development needs by publishing the research results of educators and trainers of communications skills and by disseminating information about relevant technologies and their applications

➲ Inform members of important medical topics, ethical issues, emerging professional trends, and career opportunities

➲ Report news about AMWA activities and the professional accomplishments of its departments, sections, chapters, and members

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The Practice of Anesthesiology and Perioperative Care

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Abstract

The control of pain associated with surgical operations and dental procedures has been a compelling problem for centuries. Early surgeons relied on the use of alcoholic concoctions, pressure on nerves and blood vessels, various inhalants, and smeared substances. A high incidence of adverse outcomes led to the search for safer and more effective methods, giving birth to anesthesiology as a medical specialty. The specialty of anesthesiology has evolved into several subspecialties, with the American Society of Anesthesiologists providing standards and guidelines for the profession. Today, anesthesiologists are physicians who maintain patients in a comfortable state and manage vital life functions before, during, and after surgery. Anesthesiologists also provide medical care and consultations in intensive care units, pain management clinics, and other locations. They have a full understanding of the various anesthetic agents and use sophisticated technology to monitor vital life functions, diagnose and treat medical problems, and ensure patient safety and comfort.

The conventional home of anesthesiologists has been the operating room, although most people might not realize that anesthesiologists do more than put patients “to sleep.” Anesthesiologists also manage vital life functions and, through the use of sophisticated technology, diagnose and treat medical problems. Further, these physicians are involved in the total care of the patient during induction of anesthesia before surgery, maintenance of anesthesia during surgery, and emergence from anesthesia after surgery. Anesthesiologists also provide medical care and consultations in other patient care areas, including emergency departments, intensive care units, and pain management clinics. Some may also be involved in providing anesthesia for special procedures, such as cardiac ablations to treat atrial fibrillation. Over the years, the medical expertise of anesthesiologists has resulted in a dramatic expansion of their role in health care delivery.

History

The word anesthesia was coined by Oliver Wendell Holmes Sr in 1846. Traditionally, it has been defined as the condition resulting from blocking or temporarily removing sensa-

tion, including the ability to feel pain. Until the 1800s, pain was usually considered something a person should endure as a form of religious suffering rather than try to avoid. Operations were generally performed without attempting to limit the patient’s agony, even though chemical agents with anesthetic and pain-relieving properties were known as early as AD 77.

With variable results, some early surgeons and dentists relied on the use of alcoholic concoctions, pressure on nerves and blood vessels, smeared substances (which would later be described as local anesthetics), and mesmerism (a type of hypnosis). Manuscripts from the Middle Ages mention a “soporific sponge” that was soaked with various ingredients, including what were probably the anesthetic agents scopolamine (used today to prevent nausea and vomiting) and opium. The patient was expected to lose consciousness before surgery by inhaling vapors from the soporific sponge and to wake up after the procedure by inhaling from another sponge soaked with vinegar, although this did not always occur. The high incidence of adverse outcomes eventually led to the discovery of potent agents and their practical application for surgery.

Valerius Cordus described the synthesis of ether in 1540, and Joseph Priestley discovered nitrous oxide (commonly known as laughing gas) in 1772, but the anesthetic effects of ether and nitrous oxide were not recognized until the early 1800s. Even then, they were marginally used for surgical pain relief and were more often used for entertainment, notably the “ether frolics” described in the Journal of Science and the Arts in 1818.

To this day, controversy surrounds the beginnings of the profession. While several men claimed priority for the discovery of anesthesia, Crawford W. Long’s bid may be the strongest. He removed a tumor from the neck of a patient who was anesthetized with ether in rural Georgia in 1842, but the report was not published until 1849. Charles Jackson, a Boston chemist and geologist, asserted that he had discovered the anesthetic properties of ether in 1842, although he never used it as an anesthetic. Horace C. Wells, a dentist, inventor, and entrepreneur, argued that he had recognized the anesthetic effects of nitrous oxide in 1844 when he witnessed a laughing gas show and noticed that 1 of the subjects hurt himself while under the influence of the
gas yet felt no pain until the gas wore off. Wells had 1 of his own molars extracted painlessly while he breathed the gas. It can be argued that the turning point for anesthesiology was the 1846 public demonstration by William T. G. Morton (who apprenticed under Wells) of the painless removal of a tumor while the patient inhaled ether.3

Cocaine, the first effective local anesthetic, was isolated in 1859 and first used by Karl Koller in ophthalmic surgery in 1884.4 Before that, doctors used salt in combination with ice, or they sprayed ether or ethyl chloride to numb the area to be treated. Several cocaine derivatives and safer replacements, including lidocaine, were later produced.4

It is distressing to imagine being a patient before anesthesia was used consistently. Fanny Burney, a 19th century novelist and playwright, described the radical mastectomy she endured, some 30 years before Morton’s famous demonstration, with only a handkerchief to cover her face: “When the dreadful steel was plunged into the breast, I needed no injunctions not to restrain my cries. I began a scream that lasted uninterruptedly during the whole time of the incision and I almost marvel that it rings not in my ears still, so excruciating was the agony.”1 She described in graphic detail the subsequent incisions necessary to complete the operation.

By the 1800s, the scientific knowledge needed for surgical anesthesia was in place. Inhaled anesthetics were introduced into clinical practice: nitrous oxide in 1844 for dental anesthesia, ether in 1846, and chloroform in 1847. Various masks were developed to help in delivering the inhaled anesthetics to the patient (Figure 1). In the early 1930s, the search continued for ether-derived inhaled anesthetics that were less flammable and less toxic to the liver. Halothane (Figure 2) was synthesized in 1951, but reports of hepatic damage led to the search for a replacement. The first of these, methoxyflurane, turned out to be biodegradable and produced both renal and hepatic injury. The Analgizer, a light-weight, disposable vaporizer made of plastic, was used for the self-administration of methoxyflurane during labor in the 1960s (Figure 3). Then came enflurane and its isomer isoflurane, which provided the more desirable effects of general anesthesia. Since then, newer and safer inhaled anesthetics have been developed (eg, sevoflurane and desflurane) that allow for quicker onset of anesthesia and quicker emergence from anesthesia. Further, newer and more reliable vaporizers that allow for better control of the amount of inhaled anesthetic delivered have since been developed (Figure 4).

**Anesthesia in the Operating Room**

Anesthesia care for the surgical patient begins with a preoperative visit, continues through the intraoperative period, and ends with postoperative anesthesia management. The anesthesiologist meets with the patient during the preoperative visit, reviews the patient’s medical and surgical history,
plans appropriately, and anticipates problems that could occur in the operating room. A patient who is not in good physical condition may be sent back to the primary care or specialty physician to optimize the patient’s medical condition. Anesthesiologists classify a patient’s health according to the American Society of Anesthesiologists (ASA) physical status classification (Table 1).5,6

On the day of surgery, the anesthesiologist reviews the patient’s medical records in the holding area to ensure that no changes have occurred since the preoperative clinic visit. The anesthesiologist explains to the patient what he or she can expect in the operating room, and the patient is given the opportunity to ask questions. An intravenous line is placed and, if appropriate, a benzodiazepine (eg, midazolam) may be administered to allay the patient’s anxiety. Patients who have pain may be given opioids (eg, fentanyl or morphine) in incremental amounts to alleviate symptoms. Drugs to neutralize gastric acid and decrease gastric volume are used when the patient is at increased risk of aspiration of gastric contents (eg, recent meal, trauma, pregnancy, or history of acid reflux). Peripheral nerve blocks and epidural catheters may also be inserted for intraoperative pain control or, in the case of indwelling catheters, for postoperative analgesia. Patients are monitored frequently in the holding area. They are transported into the operating room after being checked in by the nurse and surgeon.

Surgical procedures may be performed under general anesthesia, regional anesthesia, or monitored anesthesia care (MAC). The anesthesiologist determines the type of anesthesia to be delivered to a patient on the basis of the procedure and the patient’s medical history.

During surgery, the anesthesiologist is responsible for suppressing the consciousness of the patient; alleviating pain; managing vital functions, including breathing, heart rhythm, and blood pressure; and maintaining the patient in a comfortable state during recovery. In other words, the anesthesiologist makes informed medical judgments to protect and regulate the patient’s critical life functions affected by the surgery, a job made more complex by comorbidities or conditions such as obesity. These medical specialists also immediately diagnose and treat any medical problems that might arise during surgery or recovery.

**General Anesthesia**

General anesthesia is a state of total unconsciousness resulting from the use of various drugs that have different effects. The overall aim is to ensure hypnosis (producing unconsciousness), amnesia (preventing memory formation), analgesia (blocking the conscious sensation of pain), paralysis (preventing unwanted movement or muscle tone), and obtundation of reflexes (preventing exaggerated autonomic reflexes). In this state, the patient feels no pain and does not remember the surgical procedure, and the surgeon operates on a relaxed, motionless patient. Delivery of general anesthesia has been likened to that of a pilot preparing for takeoff (induction), maintaining the plane in the air (maintenance), and then bringing the plane in for a smooth landing (emergence). Induction (take off) of general anesthesia is achieved with intravenous or inhalational agents.

### Table 1. American Society of Anesthesiologists (ASA) Physical Status Classification

<table>
<thead>
<tr>
<th>ASA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASA1</td>
<td>Normal healthy patient</td>
</tr>
<tr>
<td>ASA2</td>
<td>Patient with mild systemic disease</td>
</tr>
<tr>
<td>ASA3</td>
<td>Patient with severe systemic disease</td>
</tr>
<tr>
<td>ASA4</td>
<td>Patient with severe systemic disease that is a constant threat to life</td>
</tr>
<tr>
<td>ASA5</td>
<td>Moribund patient who is not expected to survive without the operation</td>
</tr>
<tr>
<td>ASA6</td>
<td>Declared brain-dead patient whose organs are being removed for donor purposes</td>
</tr>
</tbody>
</table>

*The letter E is added after the number to indicate an emergency case.

After induction, an endotracheal tube is inserted through the larynx into the trachea with the aid of a laryngoscope to connect the patient to the anesthesia machine, which is equipped with a ventilator to deliver oxygen and inhalational anesthetic agents. Instead of an endotracheal tube, a laryngeal mask airway or a face mask may be used to deliver oxygen and inhalational agents. **Rapid-sequence induction** is used for patients at risk of aspirating gastric contents. Specialized pumps are used if the anesthesiologist decides to maintain anesthesia with intravenous agents. Muscle relaxants keep the patient immobile for optimal surgical conditions. The unconscious patient has depressed reflexes and is entirely dependent on the anesthesiologist for maintenance of homeostatic mechanisms and safety (Figures 5A–5C).
Anesthesiologists preserve vital life functions with the use of various monitoring techniques: pulse oximetry, blood pressure measurements, electrocardiography, and end-tidal carbon dioxide monitoring. Complex surgical procedures may require specialized monitoring such as with transesophageal echocardiography, which provides real-time information about the heart, including its size, shape, and pumping capacity; the motion of the heart wall; and the location and extent of any damage to its tissues. It is especially useful for assessing diseases of the heart valves and detecting abnormalities in blood flow patterns. At the completion of surgery the anesthesiologist slowly weans the patient from all medications and wakes the patient (emergence). Sometimes emergence is facilitated with reversal agents, particularly those that counter the effect of muscle relaxants. Agents such as naloxone (which reverses the effects of opioids) and flumazenil (which reverses the effects of benzodiazepines) may be used if necessary.

Regional Anesthesia
Regional anesthesia involves providing anesthesia to only the part of the body to be operated on. Pain-relieving drugs (eg, narcotics) or local anesthetics (eg, lidocaine) are delivered near the nerves that carry the pain message from the surgical incision. This technique can involve a single dose of drug before surgery or continuous or repeated dosing through a tiny catheter (with a diameter about the same as that of a high-test fishing line). A continuous infusion of pain-relieving drugs can be administered through a catheter inserted into the area around the spinal canal (epidural analgesia), or these drugs can be introduced directly into the subarachnoid space to mix with the cerebrospinal fluid, which fills the spinal canal (the anatomical casing of the spinal cord).

For many procedures, regional anesthesia is an excellent alternative to general anesthesia. In addition to providing optimal surgical conditions, regional anesthesia allows for prolonged postoperative analgesia. Other benefits include improved patient safety and satisfaction and quicker initial recovery.

Epidural analgesia, a form of regional anesthesia, gained acceptance slowly in North America after gaining earlier acceptance in Europe and South America. An analgesic technique for labor and delivery led to its adoption by several hospitals. The epidural method safely provides relief to pregnant women in labor, greatly reducing maternal and fetal mortality. Both epidural anesthesia and spinal anesthesia produce excellent anesthesia for surgery below the umbilicus (navel).

Monitored Anesthesia Care
MAC is provided for a diagnostic or therapeutic procedure and also includes a presurgical visit, intraoperative care, and postanesthesia management. MAC may involve various levels of sedation, analgesia, and anxiolysis as necessary for patient comfort. The patient must not lose consciousness or the ability to respond purposefully. The anesthesiologist treats clinical problems that occur during the procedure; supports vital functions; administers sedatives, analgesics, hypnotics, anesthetic agents, or other medications as necessary for patient safety; and provides psychologic support, physical comfort, and other medical services as needed to complete the procedure safely. The MAC provider must be prepared to administer general anesthesia when necessary, such as when the airway of the patient needs to be secured.

Postoperative Care
After the surgical procedure, the patient is taken to the postanesthesia care unit, commonly known as the recovery ward, to be monitored by specially trained nurses under the guidance of the anesthesiologist. The patient’s vital signs are monitored until the patient is fully awake and clinically stable. Medical treatment is provided for common problems such as nausea, vomiting, hypertension, and pain until the patient is comfortable and ready to be discharged home or transferred to another hospital bed.

Figure 5A-5C. Substantial advances in anesthesiology equipment and technology allow anesthesiologists to keep patients safer during operative procedures. Anesthesiology personnel and equipment in Augusta, GA, in the early 1960s (5A), in 2009 (5B), and in 2010 (5C). All photos courtesy of the Medical College of Georgia.
The American Society of Anesthesiologists
The first professional anesthesia society was organized by 9 medical colleagues from New York. As the society’s involvement in anesthesia-related issues grew, it eventually became the ASA, which now serves 43,000 members nationwide. The ASA is an educational, research, and scientific association of physicians. It provides standards (rules or minimum requirements for clinical practice), guidelines (recommendations that assist the practitioner and patient in making decisions about health care), and statements (representing the opinions, beliefs, and best medical judgments of the House of Delegates) to improve decision making and promote beneficial outcomes.

Patient Safety
Anesthesiology was the first medical specialty to specifically focus on patient safety. The estimated rate of 1 to 2 deaths caused by anesthesia care per 10,000 procedures in the 1950s to 1970s was considered too high, and media attention in the 1980s focused on anesthesia accidents that injured patients. As a result, the ASA created a committee on safety and risk management, and an independent nonprofit, the Anesthesia Patient Safety Foundation, was formed to conduct safety research and education. Among the advances were equipment that provided real-time, continuous monitoring of patients’ vital functions, medications with fewer side effects, and patient simulators to train residents and fellows. In 2005, The Wall Street Journal published a front-page story lauding the efforts of anesthesiologists for promoting safety and saving lives.

Anesthesiology as a Specialty
Technical innovations improved quality of care, but anesthesiology did not become a specialty until physicians recognized the need for formal training in anesthesia and a practice based on the principles of chemistry, physiology, and pharmacology. In the early 1900s, a handful of American medical schools appointed the first anesthesiologists to their faculties. Ralph M. Waters, MD, developed a program at the State Hospital in Madison, Wisconsin, and lobbied the Advisory Board of Medical Specialties to develop an examining board for anesthesiology. In the 1940s, the American Medical Association approved anesthesiology as a new section distinct from surgery, giving anesthesiologists the opportunity to define the qualifications of a consultant, develop an approved curriculum of study and training, and establish procedures to evaluate each candidate.

How does one become an anesthesiologist in the 21st century? In the United States, the requirements include a 4-year undergraduate college degree with a premedical curriculum, 4 years of medical school, and a 4-year anesthesiology residency program, after which residents are eligible to sit for the American Board of Anesthesiology examination. They may also choose a subspecialty by completing 1 to 2 additional years of training.

Subspecialties in Anesthesiology
The number of subspecialties has increased dramatically since anesthesiology became a recognized profession. Specialty-specific societies were formed to address the educational and clinical needs of their constituencies, and the ASA created a committee to ensure that these organizations remain closely aligned with the parent organization and to foster communication between ASA and its subspecialty societies.

Critical Care
Critical care anesthesiologists care for patients admitted to the intensive care unit for intensive or invasive monitoring during the crucial hours after major surgery. In the intensive care unit, anesthesiologists care for patients requiring support for hemodynamic instability (eg, hypertension, hypotension), airway or respiratory compromise (eg, ventilator support), multorgan dysfunction (eg, acute renal failure), potentially lethal cardiac dysrhythmias, and sepsis. Anesthesiology was the first medical specialty to develop a subspecialty board examination in critical care.

Pain Management
Decades of research have led to newer, more effective medications and treatments for pain, including nerve blocks and trigger point injections. Many techniques used for surgery and childbirth, including epidural anesthesia, now relieve other types of pain. The pioneering work by anesthesiologists has also created a new subspecialty for chronic pain (including cancer-related pain) and acute pain. For low back pain, epidural steroid injections and facet blocks may be beneficial, as might spinal cord stimulation therapy if a patient has intractable low back pain that radiates into at least 1 extremity. An implanted intrathecal drug delivery system may be considered for neuropathic pain. Sympathetic nerve blocks and neurolytic blocks have also been successfully used.

Further, patients may benefit from biofeedback, relaxation training, cognitive therapy, pacing therapy, and sleep architecture recommendations that reduce medication use, increase participation in rehabilitative physical therapy and activities of daily living, and improve mood and attitude. Heat, ice, massage, and ultrasound are used in physical therapy. One of the most versatile treatments is transcutaneous electrical nerve stimulation (TENS), a nonmedication, noninvasive, cutaneous, portable therapy. The patient controls the therapy by choosing the frequency and duration of treatment and the strength of the stimulation administered from the battery-powered unit. The rationale for TENS is that hyperstimulation of the nervous system drowns out...
the pain. TENS has few side effects (e.g., skin redness) and is highly recommended as an adjunct therapy for patients with neuropathic pain.

**Pediatric Anesthesia**

Pediatric anesthesiologists are responsible for the general anesthesia, sedation, and pain management needs of young patients, from newborns to teenagers. Pediatric anesthesiologists evaluate complex medical problems, plan for the patient’s care before and after surgery, and provide a nonthreatening environment for children in the operating room. They also provide anesthesia and sedation for procedures such as magnetic resonance imaging, computerized tomography, and radiation therapy.

**Cardiovascular Anesthesia**

Cardiovascular anesthesiologists provide anesthesia care for patients undergoing cardiac, thoracic, or vascular surgery. Devices that monitor the heart during cardiac or vascular surgery can be quite different from those used for other types of noncardiac surgery. The anesthesiologist may insert catheters into arteries, into large veins near the heart, or into the artery leading from the heart to the lungs. Many patients are monitored by transesophageal echocardiography with a probe that is placed in the esophagus. Additionally, the type of stress placed on the heart varies and may require specialized drugs. Patients undergoing cardiac surgery often require cardiopulmonary bypass, which takes over the work of the heart and lungs while the heart is kept immobile.

**Other Subspecialties**

**Ambulatory**, **bariatric**, geriatric, neurologic, and obstetric anesthesia have become subspecialties in their own right. Some anesthesiology programs offer fellowships in these areas. Anesthesiologists devote most of their clinical work to becoming experts in their chosen fields of training.

**Conclusion**

Advances in surgery would not have been possible without the discovery of anesthesia. Anesthesiology has evolved greatly since the 1800s, and with the advances have come parallel changes in the surgeon’s ability to treat and heal. Beyond the operating room, anesthesiology has branched out to include diagnosis and treatment of various illnesses and conditions, and evolving technology continues to shape the profession for the future. The ASA maintains a website ([www.lifelinetomodernmedicine.com](http://www.lifelinetomodernmedicine.com)) where individuals can learn more about anesthesia.

**Author disclosure:** The authors note that they have no commercial associations that may pose a conflict of interest in relation to this article.

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**Glossary**

- **ambulatory anesthesia**—Anesthesia provided to patients going home the same day; also known as outpatient anesthesia.
- **analgesia**—A blocking of the conscious sensation of pain.
- **anxiolysis**—Relief of anxiety.
- **atrial fibrillation**—An irregular heart rate originating from the atrium.
- **bariatric anesthesia**—Anesthesia provided for morbidly obese patients.
- **cognitive therapy**—A form of psychotherapy which focuses on conscious intellectual activity such as thinking, reasoning, remembering, imagining, or learning words and is oriented toward problem solving.
- **comorbidities**—Two or more existing disease states in a patient (e.g., hypertension and diabetes).
- **echocardiography**—The use of ultrasonic (sound) waves to diagnose diseases of the heart.
- **emergence**—Recovery of normal function, especially after general anesthesia.
- **endotracheal tube**—A flexible plastic tube that is put in the mouth and then down into the trachea.
- **end-tidal carbon dioxide**—A way to assess how well the patient is being ventilated by quantifying the amount of carbon dioxide that is being produced by the patient.
- **facet blocks**—Injections of local anesthetic into any of the four projections that link one vertebra of the spine to an adjacent vertebra in the cervical, thoracic or lumbar spine (the upper two-thirds of the spine). Facet blocks help to diagnose the cause and location of the pain and provide pain relief.
- **homeostatic**—Pertaining to homeostasis, or the maintenance of stable conditions within the body.
- **induction**—The time from the start of anesthetization to the establishment of adequate anesthesia for the intended procedure.
- **intrathecal**—Pertaining to within the subarachnoid space.
- **laryngoscope**—An instrument used to view the larynx during intubation.
- **neurolytic block**—Injection of agents to destroy nerve fibers to produce a prolonged and sometimes permanent nerve block which may benefit patients with severe intractable pain.
neuropathic pain—Chronic pain resulting from injury to the nervous system.

nociception—The unconscious activity induced by a harmful stimulus to sense receptors.

obtundation—A greatly reduced state of consciousness with some responsiveness to voice or touch.

pacing therapy—The use of an artificial cardiac pacemaker to regulate the rate of contraction of the heart muscle.

paralysis—Loss or impairment of movement or muscle tone.

pulse oximetry—Measurement of the percentage of oxygenated and reduced hemoglobin with use of a sensor applied to the skin.

rapid-sequence induction—The act of expeditiously intubating the trachea of a patient by administering drugs (a sedative and a neurolytic agent) to create an optimal condition for the procedure; usually used for patients who have an increased risk of aspirating stomach contents into the lungs.

sleep architecture—A natural state of rest for the mind and body, so that there is a decrease in bodily movement and responsiveness to external stimuli. The eyes usually close and consciousness is completely or partially lost. It is divided into two stages, nonrapid eye movement and rapid eye movement.

subarachnoid space—The anatomical casing of the spinal cord which contains cerebrospinal fluid.

transesophageal electrocardiography—A type of test which uses high-frequency sound waves to provide a close look at the heart's valves and chambers without interference from the ribs or lungs. The ultrasound transducer is positioned in the esophagus.

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References
ABSTRACT
The guidelines for making effective slides have not changed since the dawn of audiovisual learning media. What has changed are the ways slides are used. For very different formats and purposes, we still apply the name “slide.” Confusion over purpose often leads to ineffective design, which detracts from learning possibilities. To design and create an effective slide program, we need to know the intended purpose, setting, and audience.

Long ago, photographers discovered that sliding transparent images in front of projected light created interesting entertainment possibilities. Teachers and communicators began waking their audiences by accompanying lectures with projections of photographed images. Each piece of developed, transparent film went into a frame made of cardboard, metal, or later plastic, allowing the film to slide easily in and out of a still projector. The name “slide” stuck.

Fifty years ago, Kodak developed the Carousel, a round tray that held a collection of films, fit onto a projector, and did the sliding at the touch of a button. The Carousel allowed instructors to keep slide collections and made it possible to view slides in a continuous program while speaking. The “slide” came to be a standard format in the medium of audiovisual communication tools.

Although we no longer use film or film projectors, the purpose of creating slides is still to capture the audience’s attention by succinctly presenting a speaker’s presentation points. Effective slides help the audience lock information into memory. The guidelines for making effective slides have remained consistent but have not always been practiced and disseminated. Unfortunate practices have taken hold, and what we call “slides” are too often projected versions of a lecture, copies of published data, or visual aids more appropriate for individual study on a computer screen.

Creating effective slides is complicated, even though a successful result appears simple. Writers must understand the information being presented, judge the relative importance of various parts of the information, and organize the information visually in such a way to accompany and enhance the spoken presentation. Slide design requires extracting and translating information into visual images to emphasize the points of the presentation.

Many beginning medical communicators, physicians, and instructors receive no professional training in creating slides, instead learning from others who did not use the slide format well. Visual design and audiovisual perception are rarely included in the training of those who create medical education programs. As a result, the use of ineffective slides is perpetuated. If we do not know what makes a slide presentation effective, we may work very hard at creating ineffective communications.

GOOD AND BAD SLIDE PRACTICES
Although great for some purposes, audiovisual media are not the answer to every presentation need. Before we can plan an effective slide program, we must answer some basic questions:

- Is the slide program introducing a new subject or technique, presenting a point of view, or reviewing information?
- Who will be viewing the slides? What is their level of understanding and familiarity with the subject?
- Will the slides be projected in a large lecture hall, be viewed on computers in a classroom, or be used in another way?

A slide that is effective for one purpose, in one setting, with a particular audience may not work for a different purpose, setting, and audience. If the purpose of a presentation is to give an overview of studies or to introduce important concepts and strategies, a slide format can work well. When the purpose is to review tables of results from studies or compare complicated graphs or charts, printed materials provide a better choice for presenting detailed information.

When a slide is too complicated, the audience loses focus while trying to figure out the slide. Worse, they become distanced, critical, and resentful. Many slide templates are so busy that the audience has difficulty finding the important details. Information presented in slides needs to be much simpler than images (diagrams, tables, graphs) published in textbooks or journal articles.

The purpose of a live presentation is to allow for instruction and interaction, yet most of us have experienced slide presentations in which there was little or none of either. Perhaps the most basic guideline for creating effective slides is that every word on a slide should be readable by every member in an audience.

In too many presentations, the speaker reads every word to the audience. Presenters commonly relate to their slides as if the words on the slide are the presentation. When a speaker puts an entire lecture on slides, the type size is usually too small for the audience to read. In an effort to make it easier for attendees to read the content of slides, presenters provide printed cop-
ies. Whether being read to by the presenter or reading along from a printed handout, the audience cannot read, listen, and comprehend at the same time. Rather than enhancing the focus on the presentation and engaging the listener, the handout replaces the presentation. It provides information but no opportunity for interaction. The presentation becomes a reading exercise, and the chance for real learning is lost. It is not surprising when busy audience members grab a copy of the handout and skip the actual presentation. Describing an effective lecture, Copeland et al. advise medical educators not to use slides as speaker's notes.3

THE PROBLEM WITH POWERPOINT

Michael Alley, a professor of engineering at The Pennsylvania State University, has been on a mission to transform scientific presentations after attending too many that were boring and inadequate. In several books and on a Web site, Alley has attempted to explain and correct ineffective audiovisual teaching practices.4,5 Alley is one of many who emphasize the problems inherent with using the PowerPoint program to design slides, with its deadly “...default design of a single word or short phrase headline supported by a bullet list.”4 He notes that words and bulleted lists become monotonous and are not effective for enabling information recall.4

Most people who write and design slides are less than fond of PowerPoint, but it is the primary slide design software used by the world. Robert Gaskins and Dennis Austin, the inventor-designers of PowerPoint, have said they deplore that the program has replaced rigorous writing and thinking.4 Designer and information analyst Edward Tufte noted that scientists should know better than to use an inadequate software program for presenting serious data. PowerPoint is too often used for “capturing, editing, and publishing text, tables, data graphics, images, and scientific notation,” he says.7

Bad slides are not the fault of PowerPoint; bad slides are the result of ineffective efforts to use the slide format inappropriately. When we do not understand the relationship or importance of the information, a bulleted list or any other aspect of design may well end up confusing rather than aiding memory. When we understand the principles of audiovisual perception and know the purpose of a slide program, we can use any software to make effective slides. The medium may contain the message, but the software does not determine the medium.

COMPUTER-BASED LEARNING

Alley calls his solution to the problem the assertion-evidence slide. He uses a complete sentence as a headline (the assertion) and then presents visuals to prove the assertion (the evidence). Beginning with a sentence assertion headline brings focus to the presentation and eliminates the common problem of repetitive headers. Providing relevant visual information enhances learning. While some of Alley’s slides using the assertion-evidence format are simple enough to accompany a presentation effectively, others are quite complicated. Many of the slide bodies are full of information, illustrations, or photos. The design is really a new format, a self-contained teaching program or visual aid (Figure 1).

Interaction with a presenter or an instructor is often absent when slides are used as part of a computer-based program or as online assignments. Many education programs use the slide format as a substitute for print format, without regard for the rules of timing and perception inherent in the slide format. Alley’s assertion-evidence slides require attendees to take time to study the images and discover the information at their own speed. Even a complicated image can be a useful learning aid when used in this setting (Figure 2). When an audio program

![Digital Acquisition System](http://www.writing.engr.psu.edu/slides.html)

**Figure 1.** Traditional slide (A) transformed into a visual aid (B) using the assertion/evidence format. Reprinted with permission from Michael Alley. (Available at [http://www.writing.engr.psu.edu/slides.html](http://www.writing.engr.psu.edu/slides.html))
The research question is whether the dunlins of Iceland and the Baltic Sea are different subspecies

If so, because the population of the Baltic dunlins is declining, it may be a threatened subspecies

Figure 2. Complex visuals require additional time for the audience to digest, whether or not accompanied by an audio presentation. Reprinted with permission from Michael Alley. (Available at http://www.writing.engr.psu.edu/slides.html.)

provides additional information, the audio supplements the visual, a relationship that is opposite that of the traditional audiovisual aid, in which the visual supplements the live audio presentation.

THINKING VISUALLY
Projected visuals enhance our ability to learn information but only if the images comply with basic rules of human perception. Designing slides requires writers to have proficiency beyond good writing, including an understanding of audio and visual principles, teaching methods, and audience behavior.

Perhaps the main reason writer-designers resort to words and bulleted lists is that they simply do not budget adequate time for creating visual ideas. Any art director can attest that creating visual images takes longer than writing and editing. Before creating the visual concept, you must do the same research and organizing required for writing and editing. Thinking visually means doing it all—first the writing, then the design, and finally the visual presentation of the images.

What is an effective image? Images used in slides are not designed to stand on their own; their purpose is to emphasize and enhance the presentation. Reinforcing is not the same as capturing the audience’s attention.

DESIGNING CONTENT
The basic concepts of visual design include the languages of space, size, positioning, and intensity, which psychologist Stephen Kosslyn applied to graphing data and now has developed into a book about creating slides.8 Educational researchers Clark and Mayer note that learning is enhanced only when visual elements are relevant. Adding irrelevant visuals, sounds, or words distracts the audience and impedes learning.9

The audience’s perspective is an important consideration when designing slides. Michael K. Gilson, PhD, MD, chair of the newly created Computer-Aided Drug Design program at the Skaggs School of Pharmacy and Pharmaceutical Sciences at University of California, San Diego, gives advice to young scientists about creating slides for seminars based on his experience with the audience’s reactions to ineffective slides.10

- Use “informative” heads to orient the reader to the content; do not repeat the same head on multiple slides and do not repeat header information in the body of the slide.
- List the main point first; otherwise your audience may lose interest before you get to the main point.
- Use “terse” text; for example, use noun phrases rather than complete sentences.

Arthur Garson, Jr, MD, MPH, Provost of the University of Virginia, Charlottesville, and former Dean of the School of Medicine, has critiqued slide presentations from a seat in the audience and has concluded the following:11
- The most common fault is presenting slides with too much text or with too much data or with a typeface that is too small.
- It is absolutely unacceptable to ask your audience to wade through a slide with too much data.
- Footnotes should be avoided, as reference citations in the body of a slide force the audience to look for the source.
- The use of unnecessary abbreviations is confusing and does not aid memory, particularly for audience members who are not native speakers of the language used in the presentation.

Most of the common problems result when slide creators do not use the basics of psychologic perception in designing slides (Table 1).

THE ESSENTIALS
Over the years, based on research and experiences preparing and using slides for lectures and teaching presentations, I developed a list of guidelines, which address the basic minimum rules for creating and presenting effective slides. In some circumstances, we may be required to break the rules, but knowing the rules allows us to break them in the least problematic way. Medical writers often write slides for others to present, but we cannot design an effective slide presentation without under-
standing how design affects content, creates perception, and is the basis for relating to our audience (Table 2).

THE FUTURE OF SLIDE PRESENTATIONS
Will slides survive as a useful teaching tool? Will classroom computers replace instructors, substituting for them with audiovisual lessons that students can study and repeat as often as needed? While we cannot predict what medical communications will look like in the future, we know that to be effective, instructional media must adapt for each purpose, audience, and setting.

Table 1. Basic Concepts of Visual Perception

<table>
<thead>
<tr>
<th>Perception</th>
<th>Concept</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primacy</td>
<td>We see the whole before its components</td>
<td>Use the first visual impression to create meaning</td>
</tr>
<tr>
<td>Proximity</td>
<td>We see objects near each other as a group</td>
<td>Use spacing to create meaning</td>
</tr>
<tr>
<td>Similarity</td>
<td>We see similar objects as a group</td>
<td>Use visual relationships to give meaning</td>
</tr>
<tr>
<td>Continuation</td>
<td>We see patterns and groups</td>
<td>Arrange data and objects to create meaning</td>
</tr>
<tr>
<td>Closure</td>
<td>We fill in gaps in a pattern</td>
<td>Use breaks intentionally</td>
</tr>
</tbody>
</table>

Table 2. Basic Essentials for Creating Effective Slides

<table>
<thead>
<tr>
<th>Slide Element</th>
<th>Best Bet</th>
<th>Why</th>
<th>Tricks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrangement</td>
<td>1 point per slide</td>
<td>A slide’s purpose is to make a point</td>
<td>Sometimes one word or one image is sufficient</td>
</tr>
<tr>
<td>Font Color</td>
<td>Black (or dark) on a white background</td>
<td>People remember black on white better</td>
<td>Use subtle backgrounds to create tone</td>
</tr>
<tr>
<td>Color</td>
<td>Don’t overdo it!</td>
<td>People are interested by color</td>
<td>Use color to add meaning</td>
</tr>
<tr>
<td>Testing of Size &amp; Colors</td>
<td>Project slides in a room of the appropriate size and lighting</td>
<td>Is everything readable? Are the colors right?</td>
<td>If you skip this step, prepare to be surprised!</td>
</tr>
<tr>
<td>Images</td>
<td>Simple and relevant</td>
<td>Design and color should enhance content</td>
<td>If it is not working, take it out!</td>
</tr>
<tr>
<td>Software</td>
<td>Allow sufficient time to design and refine ideas</td>
<td>Thinking visually takes longer than writing words</td>
<td>Test the images on others before using them with an audience</td>
</tr>
<tr>
<td>Hardware</td>
<td>Plan for problems</td>
<td>Problems happen</td>
<td>Take your own equipment</td>
</tr>
<tr>
<td>Audiovisual Principles</td>
<td>Never use words on a slide that are also spoken by the presenter</td>
<td>People cannot hear and remember what is said when they are trying to read the exact same words at the same time</td>
<td>Don’t use “spoken language” or text on a slide</td>
</tr>
<tr>
<td>Coherent Whole</td>
<td>Each slide is a whole within the whole of the slide program</td>
<td>Each slide creates its own moment of focus and meaning</td>
<td>It is not just about the number of words, bullets, or images</td>
</tr>
</tbody>
</table>

If the computer design world develops new software and visual arts engineers create new presentation hardware, the world of education will still need media specialists who can create effective images that convey meaning. No computer program can translate complex concepts into simple visual images, and no design program determines layout. Whatever formats survive in the future, the essential elements for producing effective audiovisual programs will stay the same. Medical communicators who write and design these programs will be, as they are now, in charge of the information and its presentation.

Many resources on slide design are available online, including several new books on slide design for medical and scientific subjects. We may turn this around yet.
Author disclosure: The author notes that she consults for companies that create slides for educational and promotional purposes.

Acknowledgment
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References


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On January 19, 2010, at 10:51 am, Ivan Oransky, MD, veteran journalist and executive editor of Reuters Health, issued an illuminating tweet:

Study: “Significantly increased risk” of birth defects in some women
Author: won’t give absolute risks.
Story: killed.

Dr Oransky’s beef was with the authors of a report on a federally funded study published in Occupational and Environmental Medicine. The investigators detected a significantly elevated risk of birth defects, compared with controls, among women in several occupations, including janitors/cleaners, scientists, and electronic equipment operators. But the study report did not give absolute numbers, and when Dr Oransky asked the authors to provide these important data, they refused.

Being an MD himself, Dr Oransky calculated the numbers he needed using the tables provided in the paper. “We do not express our results in these terms,” replied the authors, when he asked them to confirm his calculations. “We do not feel it is prudent to publish … based on these results.”

Explaining his decision not to report the findings, Dr Oransky said, “They did not provide enough information such that the story we could produce would allow our readers to judge whether it was worth paying attention to or not.”

USEFUL INFORMATION
As a journalist, Dr Oransky’s objective was to present the information to the public in a context that was meaningful to them: “… the best information I could get on which my readers could make a decision.”

Did the researchers not share this goal?

One can only speculate, since Dr Oransky never heard back from them. Unless they happened to catch his earlier tweet, or read health journalism critic Gary Schwitzer’s comments on the incident, they might not even know that Reuters Health, one of the world’s best-known providers of medical news, had killed the story.

This is a classic tale of medical communication breakdown. What should have been a free flow of information from the lab to the morning news hit a roadblock because communication failed between a researcher and reporter. What’s ironic is that both people were medical communicators, and both presumably had the same goal: the dissemination of medical findings.

As AMWA celebrates its 70th anniversary, with a diverse membership numbering more than 5,600, it is appropriate to examine its mission—the promotion of excellence in medical communication—and its place on the communications continuum.

From the bench, to the bedside, to the breakfast news, medical communicators are the crucial link, with researchers on one end of the continuum and journalists on the other.
AMWA keeps no statistics on how many members are journalists, but many produce educational documents and media for patients and the public. Other members might identify more with the research end of Dr Oransky’s story. Still, anywhere along the pipeline one can find plenty of blockages in the information flow, and each blockage is a breakdown in medical communication.

Scientists have identified communication and public education as significant challenges for science today. In a recent study from The Pew Research Center for the People & the Press, 85% of scientists said the public’s low level of scientific knowledge is a major problem for science. Yet in the same survey, scientists expressed mistrust of established methods of communicating that knowledge. Seventy-five percent criticized reporters for failing to distinguish between findings that are well founded and those that are not, and 48% said the media’s oversimplification of scientific findings is a major problem.

“Rather than spurring greater efforts at communication, such mistrust and resignation have further motivated some scientists to avoid talking to reporters,” Chris Mooney, author of Unscientific America: How Scientific Illiteracy Threatens Our Future, wrote recently in The Washington Post.

COMMUNICATION BREAKDOWN
But it is not always mistrust that causes such communication breakdowns. Sometimes it is simply a lack of understanding. In their planning and preparation of manuscripts and presentations, medical writers may overlook the fact that their audience stretches beyond the scientific community. They may not recognize the importance of presenting results within a broader context, so that their meaning and implications are clear to the general public, not just to experts in the field.

“Scientific training continues to turn out researchers who speak in careful nuances and with many caveats, in a language aimed at their peers, not at the media or the public,” Mooney wrote. “Many scientists can scarcely contemplate framing a simple media message for maximum impact; the very idea sounds unbefitting.”

Medical journalists are generally well equipped to translate academic jargon for public consumption, but that doesn’t absolve medical writers from the same goal of journalistic clarity. The Lancet’s historic retraction of the Wakefield vaccine/autism paper earlier this year is a case in point. The paper, published by the journal in 1998, suggested a link between the measles/mumps/rubella (MMR) vaccine and developmental disorders that emerged in 12 children following administration of the vaccine. The paper’s publication launched a worldwide distrust of childhood vaccines that persists today, despite the decision by the UK General Medical Council to declare that elements of the paper had been falsified. The Council and The Lancet retracted the paper with the following statement:  

“it has become clear that several elements of the 1998 paper by Wakefield et al. are incorrect, contrary to the findings of an earlier investigation. In particular, the claims in the original paper that children were “consecutively referred” and that investigations were “approved” by the local ethics committee have been proven to be false. Therefore we fully retract this paper from the published record.”

In the flurry of blogging, tweets, and other commentaries that followed the retraction, Forbes’ medical journalist and senior editor Matthew Herper pointed a finger at The Lancet for poor medical communication: “...The Lancet uses language that is likely to be impenetrable to anyone not versed in the scientific literature,” he wrote. “The retraction would serve the public health better if it stated its point a little more clearly and directly. This is not a matter of an obscure scientific error.”

The retraction should have been made clear enough to play a role in the public vaccine/autism debate, he argued.

Perhaps partly because of this lack of clarity, many people within the scientific community feel The Lancet’s retraction will never repair the damage done by its publication of Dr Wakefield’s fraudulent paper. “The Lancet’s retraction shows just how hard it is to unring the bell,” Dr Paul A. Offit, chief of infectious diseases at The Children’s Hospital of Philadelphia, wrote in The Philadelphia Inquirer. “How hard it is to reassure people once you’ve scared them,” he continued. “Worst of all: The journal’s too-little-too-late retraction will do nothing to restore the lives of children lost in this sad, tragic episode.”

CLARITY AND ACCOUNTABILITY
Like Herper’s criticism of The Lancet, Dr Oransky’s tweet was a call for accountability and clarity from all medical communicators. As a member of the Board of Directors of the Association of Health Care Journalists (AHCJ), Dr Oransky devotes a lot of thought to assisting the flow of medical information to the public. To that end, he says, closer collaboration with AMWA might be useful.

With a membership of about 1,000, mostly journalists, the AHCJ includes in its goals the promotion of understanding between journalists and sources of news, as well as advocacy for the free flow of information to the public. Its Right to Know committee works to improve members’ access to information, and it has developed guides to assist members on a range of issues, from covering medical studies to covering the hospital beat. At its annual meeting, the AHCJ draws on experts in both medicine and journalism, recognizing the range of needs of health care writers. Editorial independence is the cornerstone of membership eligibility, meaning that more than 50% of a member’s work must be editorially independent journalism. “If you do a lot of advocacy work, or work for an
advocacy organization—it doesn’t have to be industry in particular, it could be a group that is advocating for more research in a particular area—that would not be considered independent,” explains Dr Oransky. “Our other focus is on pitching,” adds the association’s executive director, Len Bruzzese. “Our aim is to not have members who pitch press releases or stories to other journalists.”

Collaboration between AMWA and AHCJ might foster better understanding along the medical communication continuum, and the National Association of Science Writers (NASW) is another important link in that chain. Like AHCJ, NASW recognizes potential areas of common ground with AMWA, says its president, Mariette DiChristina. NASW has a goal similar to that of AHCJ—the free flow of science news to the public—but besides journalists, NASW’s membership of about 2,500 includes public information officers and people involved in publicity. A requirement of NASW membership is having been published in the lay press.

DiChristina, who is also the newly appointed editor-in-chief of Scientific American, says science journalists face increasing time pressures, underscoring the need for medical communicators to write clear, accurate press releases and journal articles. “Science is very complicated and journalists in general don’t have the time they used to have. I don’t think that’s a flaw of either side, that’s just the reality we all live with,” she says.

Bruzzese, Dr Oransky, and DiChristina all teach journalism (Bruzzese at the Missouri School of Journalism, and Dr Oransky and DiChristina at New York University’s Science Health and Environmental Reporting Program), and they recognize that journalists dedicated exclusively to medicine or science are a small and shrinking group. As dedicated health and medical journalists disappear, some experts predict that the communications gap between research and the mass media may expand. What role, if any, should the various players take in maintaining the flow of information to the public?

**BRIDGING THE GAP**

Blogs generated by physicians and researchers are sprouting, something Dr Oransky sees as holding interesting potential. Not all of this writing is strictly journalistic, he cautions. “If someone with an interest has funded the writing, at the end of the day that’s not journalism.” But “people who are not journalists are doing things that we can all agree are journalism,” he says. “If we [AHCJ] can find people … and help them to develop their skills using our considerable resources … I would see that as a potential opportunity to work together.”

While DiChristina also sees a place for scientists writing for the general public, she would not call their work journalism. “Scientists are good at giving the insider look. Journalists are good at reporting and analyzing. No scientist I know has reporter’s training. You just always are going to need journalists to do that. But if you want an individual’s perspective from their own research in the field, scientists are excellent at that. There are 2 different perspectives, and they both have value.”

Like many journalists, DiChristina is careful to distinguish between the goals of science and the goals of journalism. “In general, my job is not to train researchers to speak to the public, it’s to serve the public need. We’re not there because we have some educational mission, we’re there to satisfy a need to know.”

Dr Oransky echoes this sentiment: “… there are some really important byproducts of what journalism does, but it’s important to remember that at the end of the day journalism is not health education, it’s about informing people.” Additionally, he says, journalism should focus on accountability. “We need to be fact-checking and keeping the researchers honest—keeping people accountable—whether it’s talking about conflicts of interest or study designs.”

**TACKLING HEALTH ILLITERACY**

Despite these subtle distinctions, there is a growing recognition, within both the fields of medicine and journalism, that in order to inform the public about complex medical choices and treatments, communicators must be prepared to educate an audience that has a low level of health literacy. More than a decade ago, in their report “Worlds Apart: How the Distance between Science and Journalism Threatens America,” Jim Hartz and Rick Chappell, PhD, a journalist and a space physicist, wrote about the inability of science to get its message across to the public.

“At the root of the problem—and the heart of the solution—are those who control the flow of crucial information about the value of basic scientific and technological research: the scientists themselves and the journalists who communicate their triumphs and failures to the American public,” they wrote.

“Both scientists and journalists have been jolted from complacency by threats to their professional existence. Scientists, whose caste system of language and vocabulary isolates them from the public at large, fear failure in the politically charged funding arena. Journalists, whose increasing tendency to sensationalism has weakened their credibility, fear obsolescence in the fast-changing world of communications technology,” they continued.

These words still ring true today, and sadly, the lack of communication between researchers and journalists still threatens the public’s access to information.

In the wake of The Lancet’s retraction of the Wakefield paper, the journal’s editor, Richard Horton, MD, noted that the depth of the damage it caused reaches way beyond the vaccine/autism debate, penetrating right to the foundation of medical communication. In an interview with National Public Radio’s Bob Garfield, Dr Horton...
acknowledged that today’s medical debates are no longer confined to the academic arena. “Everything is accessible to everybody, at any time,” he noted. One would think that medical communicators, Dr Horton included, might consider this a triumph. Instead, he suggested that greater accessibility of information may backfire, with far-reaching consequences.

“We used to think that we could publish speculative research which advanced interesting new ideas which may be wrong, but which were important to provoke debate and discussion,” said Dr Horton. “We don’t think that now… We don’t seem able to have a rational conversation in a public space about difficult, controversial issues, without people drawing a conclusion which could be very, very adverse.”

That medical debate could somehow be sucked back behind closed doors and out of the public domain is highly unlikely. But Dr Horton’s and Dr Oransky’s frustrations reflect the significant obstacles that continue to hamper medical communication and the shared challenges that might be tackled with greater collaboration between researchers, writers, and journalists.

Kate Johnson began her journalism career in 1987 and has worked as a medical journalist for the past 18 years, mostly freelance, and as a medical writer and editor. She is a member of both AMWA and AHCJ.

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References

AMWA offers Workshops to Help Medical Communicators Better Understand Medicine and Human Body Systems

AMWA’s Concepts in Science and Medicine certificate is of value for medical communicators who are educated in nonscience fields. Each of the workshops provides an orientation to a scientific area and a foundation for further study. The certificate requires successful completion of 7 workshops plus the ethics-related workshop that is designated for this certificate. New workshops for the certificate are developed every year; recent offerings have included the following.

Basic Cell Biology
Basic Immunology
Basics of Human Anatomy and Physiology
Basics of Molecular Biology
Chemical Equilibria in Physiology
Communicating Results of Routine Clinical Laboratory Tests
Diseases of the Nervous System
Drug Interactions
Introduction to Basic Virology
Introduction to Cancer Biology
Introduction to the Cardiovascular System
Introduction to the Endocrine System
Introduction to the Musculoskeletal System
Introduction to the Nervous System
Introduction to Orthopedic Surgery
Introduction to the Renal System
Pharmacokinetics in Clinical Practice
Principles of Epidemiologic Research: Beyond the Basics
Sex and Beyond: Fertilization and Early Development

Learn more about AMWA’s educational program by clicking on “Education/Certificates” on the home page of the AMWA Web site (www.amwa.org).
“Dateline: November 11, 2010. Residents of Milwaukee reported hearing a loud rumbling that seemed to emanate from the Hilton Milwaukee City Center. The first thought was that it was a reunion of Harley riders, but it turned out to be the luggage carts of 1,000 medical writers arriving in Milwaukee to participate in AMWA's 70th Annual Conference!”

Whether you arrive by motorcycle, automobile, train, plane or Clydesdale, with over 200 opportunities for education and networking, we have what you Seek to help you Soar and Succeed.

Looking to start or complete a certificate?

Choose from among the nearly 100 workshops offered through AMWA’s unsurpassed education program. At this year’s conference, we’ll be introducing the newly structured certificate program, with the Essential Skills (the new “Core”) certificate complemented by the new specialty areas of Composition & Publication (CP), Regulatory & Research (RR), Business (B), and Concepts in Science & Medicine (SM). Workshop leaders and the Education Committee have been busy developing and reviewing new workshops in these areas, with a particular emphasis on populating the newly established SM area.

SM:  Primary Classes of Biological Macromolecules
     Evidence-Based Medicine: Bringing Science to the
     Art of Medicine
     Basic Laboratory Methods in the Biological Sciences
     Introduction to Basic Virology
     Introduction to Cancer Pharmacology

CP:  Using Classical Rhetoric Principles to Enhance
     Medical Writing

RR:  Summarizing Clinical Efficacy Data for an NDA
     Summarizing Clinical Safety Data for an NDA

ES:  Essential Ethics for Medical Communicators

We’ll also have 7 brand new noncredit workshops in Milwaukee:

- Transparency and Collaboration in Publication Development
- Understanding the Principles of Kaplan-Meier Analysis
- Using Design to Improve Readability of Medical Documents
- Introduction to the Digestive System
- Basic Designing and Typography for Editors
- Diseases of the Immune System
- US Pharmacopeia: Setting Standards

This year’s 40 open sessions include both some old favorites and some exciting new offerings that can help you hone your presentation skills, market yourself, and use social networks to build professional communities. You can also learn about everything from cancer genetics and post-traumatic stress disorder to the Medical Writing Competency Model and case studies on medical writing ethics. And remember, all the open sessions are included in the basic registration fee.
Hungry for more?

Join the Breakfast Roundtables on Thursday and Saturday to participate in small-group discussions led by AMWA members who are experts on the chosen topic (working from home, studying for the new CCMEP exam, making friends with Word 2007, planning for retirement, taking the BELS exam, and reviewing a statistical plan, to name a few).

Looking for some fun?

The RPS-sponsored reception the first night is a great place to reconnect with old friends and meet new ones. The Chapter Greet and Go provides the opportunity to meet up with other members from your chapters and go out for dinner together. The Coffee and Dessert Klatches are a wonderful way to wind down from the day. Grab a marvelously decadent dessert and join a few friends to chat about your secret Sudoku obsession, traveling in Europe, Toastmasters, gardening, bicycling, or many other subjects. Another night you can share your creative side or just provide an appreciative audience at the Creative Readings.

Want to get out of the hotel for a while?

AMWA has lined up 4 great tours for attendees in the city known for celebrating the best of Americana. With AMWA tours, you can walk on the wild side with a behind-the-scenes tour at the Milwaukee Zoo, explore the diverse neighborhoods and historic sites of the city, take in world-renowned art, marvel at one of the most architecturally stunning buildings in the state, or learn about the brewery history of the city while sampling the tasty brew for yourself. All tours include full-service motor coach transportation, a knowledgeable tour guide, and loads of fun!

The registration brochure will be posted on the AMWA Web site the July 12, so you can start planning your conference. Then be sure to log in on July 26, when the conference and hotel registration open—many of the workshops fill quickly and you want to make sure you take full advantage of the opportunities to Seek, Soar & Succeed with 1,000 of your friends and colleagues. Don’t miss the rumble!
The CONSORT statement (CONsolidated Standards of Reporting Trials) has been revised, and all medical writers who prepare manuscripts about randomized, controlled trials should study the changes. Go to www.consort-statement.org, download a copy of CONSORT 2010, and look for the Table and Box 2. Just some of the notable changes are requirements to report changes to a primary or second outcome measure after the trial started; to present both relative and absolute effect sizes for binary outcomes; to provide the registration number and name of the trial registry; to state where the full protocol can be accessed, if available; and to name the sources of funding and other support and specify the role of funders.

PubMed has restored the option to e-mail large batches of search results. Once you get a page of search results, click the “Send to:” link at right, then choose “E-mail.” Make your choices on the drop-down menus for “Format,” “Sort by,” and “Number to send.” Fill in the e-mail address and, if desired, type something in the box labeled “Additional text.” (The “additional text” will appear at the top of the e-mailed file as a reminder for yourself or as information for a colleague. Example: “48 citations for asthma project from Faith Reidenbach.”) The largest number of results that can be e-mailed is 200. If your batch is larger than that, prepare a second e-mail and in the box labeled “Start from citation,” type “201.”

A television or radio ad for a drug must be “clear, conspicuous, and neutral,” according to the Food and Drug Administration (FDA) Amendments Act of 2007. Now the FDA has proposed 4 standards for manufacturers to use in determining whether these criteria are met. The major statement (information about risks, contraindications, and efficacy) must be readily understandable by consumers; audio information must be understandable in terms of volume, articulation, and pacing; textual information must be placed appropriately, presented against a contrasting background, and be in a readable font size and style; and the ad may not include statements, text, images, or sounds that detract from the major statement. Comments on the proposed rule will be accepted until June 28; see http://digbig.com/5bbknp for details.

Journalists are sometimes banned from recording or photographing medical society meetings, and the Association of Health Care Journalists (AHCJ) has sent letters to medical societies asking them to reconsider. Four societies known to have these policies are The American College of Obstetricians and Gynecologists, The American Society of Gene and Cell Therapy, The American Society of Nephrology, and The Association for Research in Vision and Ophthalmology. Other groups have varying levels of restrictions. AHCJ cites the American Heart Association as an example of a society with rules that work (http://digbig.com/5bbkng).

Reporting on Cancer Research (http://digbig.com/5bawde), a new Web page from The Journal of the National Cancer Institute, will be of use to medical journalists—and other medical writers—in a number of fields besides oncology. The initial content is a series of 4 succinct tip sheets: “Number glossary” (e.g., absolute risk, relative risk); “Statistics glossary”; “Questions to guide reporting”; and “How to highlight study cautions.” The tip sheets are designed to be easy to use on deadline. Check the page regularly for additional material.

Explaining Research by Dennis Meredith will be of special interest to grant writers and others who need to convey scientific information to people who are well educated but not specialists in the field under discussion. Subtitled How to Reach Key Audiences to Advance Your Work, this book by a 40-year veteran shows how to tailor information to colleagues, institutional leaders, legislators, corporate sponsors, and funding agency administrators, plus the public. It covers Web sites, blogs, videos, and webinars, not just old standbys such as news releases and lay-level articles. Meredith’s publisher asked him to edit the book for length, and he self-published some chapters as a separate book, Working with Public Information Officers. Information on the book is available at www.explainingresearch.com/index.php?page_id=1.

Items in Briefly Noted appear earlier on AMWA’s Editing-Writing listserve. To subscribe to this listserve, go to www.amwa.org and click on Members Only>Networking>Listservs.
**Q – Can I make more money if I use subcontractors?**

**A –** Yes. Using subcontractors is an excellent way to increase income because you can mark-up the work of others. However, you can also lose a substantial amount of money by hiring the wrong person! Even if someone claims to be an experienced writer, editor, artist, designer, audio-visual producer, photographer, proofreader, etc., —and provides samples—that person can end up being slow, unreliable, or simply not able to produce up to expectations. Sometimes you not only cannot mark-up his or her time, you must take a loss because you have to redo the entire job and can’t possibly charge the client for the time. Hiring really good, reliable subcontractors has been one of the most difficult aspects of my business and I now do it rarely; however, when I cannot handle a project, I happily refer clients to another freelance so they can set up their own contractual arrangement. Several other consultants and business owners who hire contractors and subcontractors have commiserated with me on this issue. So . . . yes, you can make more money if you have good subcontractors, but do it cautiously and be sure to check references thoroughly.

—Cathryn Evans

**A –** I do not generally charge a mark-up fee when I use subcontractors, but I do believe I have made more money using subcontractors for the simple reason that I am able to take on more work because of their help! When I can say “yes” to a job, that increases my odds of having a happy client who will send me repeat business. However, I am careful either to use subcontractors I really trust or to thoroughly check the work of others (newbies or writers whose work I am less familiar with). It’s my reputation on the line, after all!

—Sherri Bowen

**A –** Subcontracting is a great way to build your freelance business beyond yourself. But just like freelancing itself, subcontracting is not for everyone. To be successful, you need exceptionally strong marketing, financial, and management skills. You also need especially thick skin: first, because as you become successful you will have more projects going on at once, which means more potential for things to go wrong that you are responsible for making right; and second, because if you’re doing it right, instead of doing what you love to do (write), your time will be spent managing people who are doing what you love to do, which can be frustrating if you’re not ready to accept the change.

The financial rewards for subcontracting can be great, but so, too, can be the financial risks. The best reward is the ability to make money when other people work for you. Of course, you must remember that you don’t make as much money when someone writes for you as when you write yourself, and that’s where the exceptionally strong marketing skills come in.

For example, if you need to gross $100,000 per year as a freelance medical writer to maintain your lifestyle, you must gross many multiples of $100,000 per year if it is not you, but others, doing the writing. If your margin is 30% on every job, you need to bill $333,334 to net the same $100,000 at the end of the year. That’s 3 times the amount of business you have now. If your margin is 10%, you need to bill $1 million to net $100,000, or 10 times the amount of business. It’s clear to see why you need to be better at selling and juggling. And the lower your margin, the better at it you better be!

Ready to jump in and try subcontracting? Not so fast. There is a top end to what clients will pay no matter how well you sell them on, and consistently deliver, value. To deliver that value, you must hire top-shelf writers. Top-shelf writers will command (and should be paid) top-shelf fees. Therefore, there is also a top end to the margin you can earn. Remember, great freelance medical writers are worth their weight in gold. So, just as you expect your clients to pay you commensurate with the value you bring to the table, so, too, should you pay your subcontractors.

When you subcontract, if you’re not very careful and very good at what you’re doing, it is quite possible to work harder and earn less money personally. For this reason, you’ve got to watch every project carefully. For example: project creep won’t just hurt you, now it can kill you because it’s not just your time at stake. When you subcontract, you’ve got a financial obligation to your writer that will keep growing whether you’re good at managing that project creep with your client or not. You’ve also got to be much better at estimating and much more careful in monitoring and managing your cash flow.

With balance, stamina, and a very strong stomach, it is possible to make more money using subcontractors. Much more money. It can be a lot of fun, too. As your business grows, it’s also possible to make more time for yourself, and that’s priceless.

—Brian Bass
The Institute of Medicine (IOM) has finished its report on continuing medical education (CE) (http://digbig.com/5bbfrw). Finding “major flaws in the way CE is conducted, financed, regulated, and evaluated,” it recommends the creation of a public-private, interprofessional institute to oversee these functions. As expected, one focus of the report is on preventing marketing messages from seeping into educational programs. Some of the other deficiencies the IOM identified: the science of how clinicians learn is underdeveloped; clinicians focus on meeting regulatory requirements rather than identifying personal knowledge gaps; and clinical care is interprofessional but CE is typically not. In response, the Council of Medical Specialty Societies, which represents more than 580,000 US physicians, said it does not support the proposed new institute, partly because the IOM did not consider 2 innovations in CE: point-of-care learning and performance improvement CE.

Publication of raw datasets as supplements to scientific papers is more common now that many journals are online and have virtually unlimited space. The February 6 issue of BMJ provides the first detailed guidelines about protecting patient privacy. For authors and those who assist them, the principal advice is to remove all direct patient identifiers (eg, name, address, and facial photograph) and have an independent researcher or ethics committee review datasets that contain 3 or more indirect identifiers (eg, place of treatment, socioeconomic data, rare disease, small population size, and very small event counts). The article also addresses file preparation, copyright, and procedural guidance. Free online; the DOI is 10.1136/bmj.c181. (Type this identifier into PubMed.)

The Word of Mouth Marketing Association (WOMMA) has developed disclosure guidelines for people who use social media to market pharmaceuticals or other products. For example, WOMMA suggests using a disclosure statement such as, “I was paid by [company name] to review...” or “I am an employee of [company name]” when commenting on a blog or other online discussion. It recommends posting a “Disclosure and Relationships Statement,” or a link to such a statement, on the profile page of blogs and other social networking sites. Twitter users should use hashtags when disclosure is needed: #spon for sponsored, #paid for paid, and #samp for sample. The complete guidelines are at http://womma.org/ethics/disclosure.
What is your current position?
As Director of Medical Writing, I coordinate the writing efforts supporting our clinical research programs. We are a clinical stage company with multiple product candidates in clinical trials, as well as a pipeline of earlier stage projects. Our department develops clinical regulatory submission documents such as clinical study reports, investigator's brochures, study protocols, and clinical data summaries, as well as scientific publications, including manuscripts and presentations. I lead a group of staff and contract writers assigned to specific programs and writing projects. Medical writing is a relatively new function at the company, so part of the role is to figure out how to work best with all of the existing teams and to establish processes and standards that will enable cross-program consistency and efficiencies.

How did you get into medical writing as a profession?
Accidently, as did many of us at that time. Looking to move away from bench research, I wanted a profession with more flexible demands to balance family time when my children were young. I started as a freelance, at first doing abstracting and indexing of scientific literature. In the medical writing field for about 20 years, I have worked in a number of different areas, including regulatory submission writing (chemistry and manufacturing controls and nonclinical and clinical content), scientific publication development, and continuing medical education (CME) projects. I have an MS degree in biochemistry from the University of Massachusetts, Amherst, and obtained certification as Editor in the Life Sciences from BELS. I have overseen writing departments of 1 person (me), up to 8-10, including contract writers, typically with a main focus on clinical regulatory writing.

Is there anything you wish you had known starting out that you know now?
“The perfect is the enemy of the good”: Voltaire. That certainly wasn't part of my mindset when I first started out. I did come to realize that there is a level of polishing that doesn't justify the time it takes. Developing a sense of the priorities for each project balanced with the available time and resources was an important learning experience.

What advice would you give to other members who are trying to establish medical writing departments?
Evaluate the specific needs of the organization when establishing medical writing as a new function. Have a champion within the company with a vision for what medical writing can contribute. Initially, set priorities for the most pressing issues rather than spreading efforts too thin. Demonstrated competence in completing writing projects, commitment to team goals, and a customer-service orientation will enable a new medical writing department to make the most of the opportunities to contribute to the success of the organization.

Since many AMWA members lead departments, what do you consider to be the essential elements of the "care and feeding" of a department of medical writers?
Medical writers in the biopharmaceutical industry have a demanding job. They are charged with producing accurate and high-quality documents on aggressive timelines in the face of conflicting opinions and changing assumptions. Critical elements for the care and feeding of a medical writing department are facilitating a sense of identity as a group and extending support to one another. Providing new opportunities and working on career progression plans are also important.

What is your leadership philosophy?
Essential qualities that most people look for in their work are meaning, mastery, and autonomy. Good leaders help people to find these things.

What do you find most rewarding?
Pulling together the data into a coherent story that informs the risk-benefit analysis of a potential new therapy, especially in areas such as oncology, where the need is tremendous for new safe and effective treatments.
What surprised you most when you first started in the field?
How much time was spent on nonwriting tasks such as planning, researching, communicating with team members, and assembling documentation. Some days, it seemed there was precious little writing in medical writing.

Is there anything that surprises you now?
Maybe surprised isn’t the right word, but it has been a bit of a scramble to keep up with the clinical trial registry and results disclosure requirements. Our department is currently responsible for posting and maintaining trial records on ClinicalTrials.gov, and FDAAA 2007 has led to many developments.

When you hire a newer medical writer, what qualities and skills do you look for?
In smaller writing groups, we do not have the resources to train entry-level writers, so I look for prior biotechnology/pharmaceuticals industry writing experience. Because of electronic submission requirements, technical expertise in the relevant software platforms is a valuable skill set.

What are the best ways for a newcomer to establish himself or herself as a medical writer?
Getting that first medical writing position is the most difficult step. A number of good training opportunities exist, including AMWA certificate programs. Freelance projects can be a good way to add some relevant experience to the résumé. Having a mentor is valuable for newcomers as well as for writers who are interested in continuing their career growth.

Any last advice for people just starting out or looking to transition into medical writing?
Be patient but persistent—it can take some time to arrive at the right place at the right time. Meanwhile, engage in any writing opportunities that are available and be on the lookout for areas where the need is not being satisfied by the available writing resources.

Credentialing Examinations
Credentials can help medical communicators distinguish themselves to their employers or clients by demonstrating a commitment to their professional development. Several credentialing examinations test proficiency in a particular area of medical communication. For all of the following examinations, applicants must complete the application process before registering for the examination. Details on eligibility criteria, application process, exam preparation, fees, and other candidate information are available on the Web sites of the credentialing bodies.

Board of Editors in the Life Sciences (BELS) Certification
Offered through BELS, www.bels.org
Exam: 3-hour (paper-based)
Location and Dates
Wednesday, November 10, 2010, 9:30 AM–12:30 PM
Milwaukee, WI
→ register by October 20, 2010
Note: Check the listing of AMWA Chapter Conferences (www.amwa.org) for more dates and locations of examinations.

Certified CME Professional (CCMEP)
Offered through the National Commission for Certification of CME Professionals (NC-CME), www.nccme.org
Exam: 3-hour (computer-based)
Location: More than 200 sites throughout the United States and Canada
Dates: September 13-30, 2010
→ register by August 31, 2010
December 1-31, 2010
→ register by November 30, 2010

Certified Medical Publication Professional (CMPP)
Offered through the International Society for Medical Publication Professionals (ISMPP), www.ismpp.org
Exam: 3-hour (computer-based)
Location: More than 200 testing centers throughout the United States and Europe
Dates: Check Web site for details on dates of the examination.

Regulatory Affairs Certification (RAC)
Offered through the Regulatory Affairs Professionals Society (RAPS), www.raps.org
Exam: 2-hour (computer based)
Location: Hundreds of testing centers throughout the United States and Europe
Dates: October 1 to November 30, 2010
→ register by August 15, 2010 (early) or September 8, 2010 (late)
The Medical Writing Career Path: What is the ROI of an MBA?

By Jodi Braunton, MA, MBA
Manager, Research Communications, University Health Network, Toronto, Ontario, Canada

For early or mid-career professionals in many fields, the Master of Business Administration (MBA) degree is seen as a stepping stone to career advancement. And, while enhancing your knowledge and skills will make you more appealing in any market, it is often said that an economic downturn is the ideal time to pursue additional education. Is this always the case? Recognizing that medical communicators are a diverse lot—and our workplaces range from large firms to academia to the public sector to charitable organizations to independents and small shops—the return on investment (ROI) of an MBA may likely depend on an individual’s professional situation and career goals.

MBA: The Advantages
Career changes are a popular reason for earning an MBA, but an MBA can also provide tools and contacts to switch within a field—for a promotion to medical writing management, to change industries, or to move into a different type of communication field (e.g., corporate communications or investor relations). Advanced academic credentials can help persuade employers or clients of your business acumen or in-depth knowledge of their fields.

Even if a new job is not on the horizon, an MBA can enhance “soft skills” to help you in your day-to-day responsibilities. MBAs often focus on group work, including communication, project management, motivational and interpersonal skills, and presentation skills. Group work offers a chance to share and practice techniques for running meetings, facilitating discussions, eliciting input, and group decision-making (including tools for persuasion and influence).

Finally, an often-unexpected benefit of an MBA is the opportunity to bring your work issues/problems to a group of experts or experts-to-be as case studies (observing all confidentiality requirements, of course!). Real-life experiences are grist for the mill in MBA courses, and presenting your own challenges can yield insight on some of your most difficult projects.

MBA: The Decision
The MBAs’ advantages are many, but there are some drawbacks: MBAs are expensive, tuition-wise, and represent a huge time commitment even if pursued on a part-time basis while working full-time. Family life can suffer, and you may need to temporarily pass on career opportunities that involve travel, relocation, or extra responsibilities if your time is at a premium.

Furthermore, MBAs may not be for all medical communicators. If writing and editing is your passion and you want to stay in a front-line role, then the ultimate benefits may not outweigh the costs. Some positions in heavily regulated markets may operate under strict standard operating procedures and not allow the scope to incorporate your learning on a day-to-day basis. In these cases, and for those who choose not to commit to a degree, you may consider a postgraduate certificate in a single specialized area, something that is also offered by many business schools.

MBA: Logistics
MBAs are offered in a variety of formats, including part-time, weekend-only, residential intensives, and online. Specializations of particular interest to AMWA members, including pharmaceutical management and health care administration (see sidebar), are offered at a number of schools. In these programs—in addition to the standard MBA fare—you can expect unique course offerings including health care law, health care financing, risk and insurance, pharmaceutical marketing, drug development, the biotechnology industry, and drug and device approval processes.

The following are some major course categories of significant interest to medical communicators.

Strategy
Strategy represents the systematic analysis of an organization’s operating environment, including competitors, external factors, and internal capabilities, resulting in overall direction-setting for the organization. Often taught using case studies, strategy courses bring together everything learned about the organization and its environment. Careerwise, in a large corporation, understanding your organization’s strategy is key to being able to contribute to it, as well as to deduce and successfully sponsor new initiatives aligned with corporate goals. For smaller shops, including consultancies and sole proprietorships, a strategic mindset is key to positioning yourself in the market—however large or small that may be—as well as planning for the future.

Organizational Behavior
These courses appear under different labels but all have to do with the “human” factors of the workplace: motivational factors, power relationships, organizational culture, and organizational design. They can be tremendously practical for anyone who finds themselves in or plans to undertake a leadership, management, or coaching role. One of my most
useful courses involved change management—it provided solid, practical advice for how to communicate bad news relating to layoffs or organizational restructuring.

**Marketing**
Marketing represents an entire discipline of data-driven decision-making. In the pharmaceutical industry, medical communicators likely have access to marketing departments, but those in start-ups or nonprofit or independent freelances may find themselves working with vendors and wanting to understand their mindset. There are other uses for marketing know-how: for developing business plans, convincing granting agencies of the commercial potential of new findings, and fundraising—direct mail, advertising, and donor research, to name a few.

**Management**
These courses address various areas that may not fall under a specific category, including negotiation, ethics, project management, business law, and career management (including self-assessments, presentation skills, interviewing skills, and curriculum vitae review). Many of these comprise the “soft skills” of the workplace—and are useful at any stage.

**International Business**
MBA schools responded to the globalization trend of the last 2 decades by providing training for the multinational managers of tomorrow. Even if you don’t foresee a move to the Mumbai office in your future, these courses are an eye-opening introduction to different cultures and perspectives. One of the most interesting courses I took was “Marketing in Asia.” Part travelogue, part intensive marketing seminar, our small class analyzed nearly 2 dozen case studies of new initiatives in Hong Kong, China, India, and elsewhere. I took away from this course a new appreciation for cultural differences in the process of international expansion (for products as well as services) and a new framework for understanding decision-making in multinational organizations.

**Finance/Accounting/Economics**
As you move up the corporate ladder, your exposure to budgeting and financial statements will increase. Whether you are managing a departmental budget or your own consultancy’s finances, editing an annual report, doing research for your own investments, or trying to understand recent news stories about the implosion of the credit markets, these courses are indispensable.

Acknowledgment
Thanks to fellow AMWA members for helpful e-mail discussions related to this topic.

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**SELECTED MBA PROGRAMS OF INTEREST IN NORTH AMERICA**

- MBA in Health Care Administration
  Wharton School of Business, University of Pennsylvania
- MBA in Pharmaceutical Management
  Silberman College of Business, Fairleigh Dickinson University, New Jersey
- MBA in Pharmaceutical Management
  Rutgers Business School, Rutgers University, New Jersey
- MBA in Pharmaceutical and Health Care Business
  University of the Sciences in Philadelphia
- Dual MBA/MPH degree in Health Management
  Haas School of Business, University of California, Berkeley
- MBA
  Sloan School of Business, MIT and Harvard-MIT Health Sciences and Technology Master of Science (dual degree program), MBA Major in Health Sector Management
  Rotman School of Business, University of Toronto

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**CAREER POINTERS**

To get to the next level in your career:
1. Identify what the next level looks like.
2. Track your accomplishments.
3. Identify your personal brand.
4. Start talking to people and thinking about what you want.
5. Plan your networking.
6. Be on the lookout for the right opportunity.

—Stevie Puckett, MA
Career Tips Blog
www.CareerSparksClub.com
AUGUST

National Conference on Health Communication, Marketing, and Media
August 17-19, 2010
Atlanta, GA
E-mail: cdcinfo@cdc.gov
Web site: www.cdc.gov/healthmarketing/NCHCMM2010

American Chemical Society Meeting and Exposition
August 22-26, 2010
Boston, MA
Phone: (800) 251-8629 (US/Canada only)
(508) 743-0192 (outside the US)
E-mail: natlmtgs@acs.org
Web site: www.acs.org

October

American Association of Dental Editors
October 7-8, 2010
Orlando, FL
Phone: (414) 272-2759
E-mail: aade@dentaleditors.org
Web site: www.dentaleditors.org

Public Relations Society of America
October 16–19, 2010
Washington, DC
Phone: (212) 995-2230
Web site: www.prsa.org

American College of Clinical Pharmacy
October 17-20, 2010
Austin, TX
Phone: (816) 531-2177
E-mail: accp@accp.com
Web site: www.accp.com

Association of Clinical Research Professionals (ACRP)
Global Conference and Exhibition
April 23-27, 2010
Tampa, FL
Phone: (703) 254-8100
Web site: www.acrpnet.org

Regulatory Affairs Professionals Society
October 24-27, 2010
San Jose, CA
Phone: (301) 770-2920
E-mail: raps@raps.org
Web site: www.raps.org

Association for Business Communication
October 26-30, 2010
Chicago, IL
Phone: (936) 468-6280
E-mail: abcjohnson@sfasu.edu (Dr. Betty S. Johnson)
Web site: www.businesscommunication.org

NOVEMBER

American Society of Tropical Medicine and Hygiene (ASTMH)
Annual Meeting
November 3-7, 2010
Atlanta, GA
E-mail: mlesh@astmh.org
Web site: www.astmh.org

National Association of Science Writers Workshops/Council for the Advancement of Science Writing New Horizons in Science Conference
November 4-9, 2010
New Haven, CT
Phone: (304) 754-5077
E-mail: diane@nasw.org (Diane McGurgan)
Web site: www.casw.org

Association of American Medical Colleges (AAMC) Annual Meeting
November 5-10, 2010
Denver, CO
Phone: (202) 777-2742
E-mail: annualmeeting@apha.org
Web site: www.aamc.org

American Public Health Association
November 6-10, 2010
Denver, CO
Phone: (202) 777-2742
E-mail: annualmeeting@apha.org
Web site: www.apha.org/meetings

European Association of Science Editors
November 11-13, 2010
Nice, France
Web site: www.ease.org.uk

COMING IN 2011

AMWA Annual Conferences
November 11-13, 2010
Milwaukee, WI
October 20-22, 2011
Jacksonville, FL

American Academy for the Advancement of Science
February 17-21, 2011
Washington, DC
Phone: (202) 326-6400
E-mail: aasmeeting@aaas.org
Web site: www.aaas.org

American Pharmacists Association
March 25-28, 2011
Seattle, WA
Phone: (800) 237-2742 (ext. 7578)
E-mail: sberkowitz@aphanet.org (Stacy Berkowitz)
Web site: www.aphanet.org

American Society for Indexing
April 28-30, 2011
Providence, RI
Phone: (303) 463-2887; Fax: (303) 422-8894
E-mail: info@asindexing.org
Web site: www.asindexing.org

Society for Technical Communication
May 15-18, 2011
Sacramento, CA
Phone: (703) 522-4114
E-mail: stc@stc.org
Web site: www.stc.org

Society for Scholarly Publishing
June 1-3, 2011
Boston, MA
Phone: (303) 422-3914; Fax: (303) 422-8894
Web site: www.sspnet.org

Plain Language Association International
June 9-11, 2011
Stockholm, Sweden
Web site: www.plainlanguagenetwork.org
A couple of years back, I offered some comments in my column on "Words I Love" (pristine, amend, and iteration) and gave reasons why they appealed to me. They were relatively common words with no medical or scientific implications.

I now want to add some words to my list of favorites; these are medical. Why do I love them? Let me count the ways. It is not because of any clinical or intrinsic meaning. It is more the sound that strikes my ears, the nuance of tone when pronounced, the beauty of the sound, or sometimes the alliteration or onomatopoeia. By coincidence—and purely coincidence—three of the words describe bodily sounds; maybe that’s why they appeal to my sense of hearing.

Borborygmus
For the medically unsophisticated, borborygmus certainly sounds like an impressive scientific word ("scientific" here meaning a big word to keep anyone from understanding). But to me—and probably to those of you who recognize it—it is one of the most onomatopoetic words in health jargon.

Stemming from roots that are very similar in Middle English, Latin, French, and Greek, its meaning is universal. For example, in Greek and French it simply means "to rumble." Modern dictionaries would probably use the definition "intestinal rumbling caused by moving gas."

But once you know what it means, it does not take much imagination to realize that the sound suggests the meaning and that makes it appealing.

The word also has value and impact if it is used with lay persons—impressive to say the least. Not bad for just a little old intestinal gas.

Flatus
Taken directly from the Latin flatus in about 1681, its original meaning remains unchanged—even though it is sometimes translated as blowing or wind. In fact, the exact word is found in dictionaries of several languages—it is universal.

Flatus is variously described as "gas in the stomach or intestine" or "gas emitted from the intestinal tract through the rectum." Today, its meaning is mostly limited to the latter definition.

Why do I like the word? It certainly is not onomatopoetic nor is it beautiful sounding. There is just something about it that attracts my ear, even though it is not a commonly used word.

Singultus
Derived from the Latin singult, meaning catching one’s breath while sobbing, this terminology is a “fancy” term for hiccups (or hiccoughs). The latter terms are so widely used that singultus is rarely used—usually only for purposes of ostentation and obfuscation and for spelling bees.

An interesting sidelight: hiccup and hiccough are exact synonyms and can always be used interchangeably.

Like borborygmus, singultus is supposed to be onomatopoetic—but for me that is hard to swallow (oops!). Saying it does not—to my ears—sound like hiccups. The term was first used in 1530. But even though I do not use it in ordinary speech or medical communication, I still like the sound of it.

Cockles
I love "cockles" as a medical word, even though its only anatomical relationship is in a single phrase. So I include it here.

Everybody knows what the loving phrase “warm the cockles of my heart” means. It denotes a sensation of immense pleasure or affection, with a sort of special twist or emphasis.

Ah, yes, but how many people know what a single cockle is? Or where else you can use it in the English language? And is there such a thing as "a cockle"?

Dictionaries (those that do list it—many do not) have varying interpretations and comments with agreement it seems only on 2 things: it probably derives from the fact that the human heart resembles in shape the cockleshell (a bivalve mollusk) and its use in the widely known, centuries-old expression. There seems to be no indication for a single "cockle."

In fact, the use of "cockles" in that wonderful expression appears to be the only logical use of the word. No dictionary suggests any other definition or place for it.

So, here we have a single word with no exact definition, with a known use only in one phrase. But it is a universally
recognized and understandable word. That’s an unusual role for a word to occupy in linguistics.

I think that its widespread use in just one idiom (a very warm and comfortable home) explains its universal recognition and acceptance. For me, I appreciate it because every time it crosses my mind, I hear some brilliant Irish actor with his revered brogue rolling his r’s on “It warms the cockles of me ‘art.” What’s prettier?

So if, upon retrospection, your cogitations promulgate some misinterpretation of my motivation, and your contemplation makes the assumption that I am entranced solely by polysyllabic ponderosities and conglomerations of garrulities, be assured, lexicologically speaking, that your outlook is opinionated and conclusory. They are simply some of my favorite words.

➲ See page 92 for a member news item about Dr Melnick.
Edie has been in a rehabilitation facility since having a stroke earlier this year. She does not have her valuable resources on hand, but she is thrilled to continue helping members solve their grammar and usage questions through her column, even though it means her answers are concise.

DEAR EDIE: I edit health brochures for consumers, and I keep seeing the sentence: “Eating healthy may lower your risk of heart disease.” Can something “possibly” (“may”) lower risk, or would you just say, “Eating healthy lowers risk....”

DEBRA SHARE, ELS(D)
Elkins Park, PA

DEAR DEBRA: First of all, I would say eating healthily, not healthy. “May” conveys the idea of possibility, so either one of these would be correct:

Eating healthily may lower your risk of heart disease.

Since we know this to be true, eating healthily can lower your risk of heart disease.

DEAR EDIE: Here is an example of a question about subject-verb agreement and percentages that several of us debated. We would like to hear what you have to say about it.

“One in 77 New Yorkers—1.3% of the population—have been diagnosed with HIV/AIDS.”

RHODA SCHLAMM
Woodside, NY

DEAR RHODA: I would completely reword the sentence: “HIV/AIDS has been diagnosed in 1 of 77 (1.3%) of New Yorkers.” However, the phrase “diagnosed with” is becoming more and more commonplace—an example of usage changes. If I had my way, I would consign that phrase to oblivion. I would prefer to say, “whose diagnosis was ....”

DEAR EDIE: I was copyediting a long monograph that had several citations. Many of the citations were direct quotes, and some included improper usage and grammatical or syntactical mistakes. I tried to verify the citations but was unable to find many of the references on PubMed or the other places I looked. Would it be overstepping to correct the usage and mistakes or should I leave them as is?

KATHLEEN C. DILLON, RDMS
Petaluma, CA

DEAR KATHLEEN: First of all, if you are making a direct quote, you should adhere as closely as possible to the original wording. However, since you indicate that some wording is patently incorrect, you should so indicate by using “[sic].” If we were to correct incorrect quotations, it would take all of our time.

You also could open that particular paragraph by saying that you are adhering as closely as possible to the original wording.

Caveat: Do not change the misspelling of a name without indicating that the correct is “so-and-so.” This is because it may very well be cited in PubMed or elsewhere with the incorrect name; thus, the citation cannot be found. Case in point: For years, a particular publication was cited by a person whose name was prefixed by “von.” Only several years later was it discovered that “von” simply means “by” in German and was never a part of his or her name.

I am sure that the editor who discovered that error was remembered in the author’s will.

I thank Dirdrah Watson for her invaluable assistance with this column.

Edie Schwager, a freelance writer, medical editor, and workshop teacher, lives in Philadelphia. She is the author of Medical English Usage and Abusage and of Better Vocabulary in 30 Minutes a Day. She welcomes queries and comments by e-mail, and in publishable form. Edie’s e-mail address, not surprisingly, is dearedie@verizon.net. Questions may also be sent to the AMWA Journal editor at amwajournaleditor@editorialrx.com. Answers to Dear Edie questions will be published in the Journal but will not be sent in e-mails to correspondents.
Diabesity: The Obesity-Diabetes Epidemic That Threatens America—And What We Must Do to Stop It
Francine R. Kaufman, MD
New York: Bantam Dell; 2005. 326 pp

The number of overweight children in the United States has tripled since 1970. Given such statistics, it is not surprising that experts estimate that diabetes will develop during the lifetime of 1 of every 3 children born in 2000. Dr Kaufman, a former President of the American Diabetes Association, documents the interlocking epidemics of obesity and type II diabetes, or “diabesity.” The book interweaves the physiologic underpinnings of diabetes with anecdotes about the diabetic patients she sees as Head of the Center for Diabetes, Endocrinology and Metabolism, Children’s Hospital Los Angeles. Other chapters cover the psychologic implications of being diagnosed with diabetes, the spread of diabesity internationally, and methods that parents, schools, employers, and governments can use to intervene successfully.

The obesity epidemic is fueled by increasing food intake coupled with decreasing physical activity levels. For example, in the 1950s, a small soda purchased in a restaurant contained 6 ounces compared with 16 ounces today. Supersized portions of French fries have become the norm. (No wonder kids eat 40% more at a heavily-advertised fast food meal than they do at home!) Few children walk or bike to school, and few exercise at school because less than 20% of middle and high schools provide physical education classes. At home, American kids watch an average of 4 hours of TV a day.

The author does not sugarcoat this serious problem, but optimistically describes solutions to establish what she calls “the new normal,” a hypothetical state in which unhealthy eating and inactivity become socially unacceptable. Dr Kaufman recognizes that although this is a laudable goal, it is not easy to achieve. In the Los Angeles area, for example, 25% of parents with children under age 5 do not have access to a safe park or playground. Recognizing this need, Children’s Hospital and local partners developed an online map that lists local recreation programs and farmer’s markets to help diabetic patients put recommended lifestyle changes into practice.

Social marketing campaigns to establish the new normal are modeled on the campaigns that made smoking socially unacceptable. Dr Kaufman spearheaded one such campaign in Los Angeles County—to ban junk food and soda from school vending machines. Similar bans have been planned or implemented in San Antonio and Hong Kong, and statewide in Oklahoma and Arizona.

The second thrust of social marketing campaigns to decrease diabesity involves increasing exercise. The Chicago police department sponsors the “Walking School Bus” program in which volunteer parents accompany small groups of students walking to and from school. School efforts can be reinforced at home by such programs as “National TV Turn Off Week,” which encourages substituting exercise for TV and computer games for a week each spring. The California Adolescent Nutrition and Fitness program sponsors workshops to train local activists how to encourage the Hip Hop generation to embrace exercise.

Similar campaigns work for adults as well. Dr Kaufman implemented a junk food ban at Children’s Hospital. The Centers for Disease Control and Prevention painted, carpeted, and decorated stairwells with artwork, piped in music, and posted motivational signs (total cost, $16,000), to encourage employees to add activity to their workdays. On the government level, Medicare policy changed to make obesity treatment eligible for reimbursement even for otherwise healthy individuals, and tax law now allows fees for doctor-prescribed weight loss programs to be deducted as medical expenses.

Diabesity is a major international public health problem. Dr Kaufman describes one doomsday scenario for the future in which diabetes develops in 75% of adults worldwide. Innovative anti-obesity programs deserve to be publicized by AMWA members who are journalists and duplicated by those members who are parents concerned about the health of children in their communities.

This book is a valuable addition to the discussion of childhood obesity as presented in such books as Fed Up! Winning the War Against Childhood Obesity by Dr Susan Okie, and Generation Extra Large: Rescuing Our Children from the Epidemic of Obesity by Lisa Tartamella et al.

—Jane Neff Rollins, MSPH

A former epidemiologist, Jane Neff Rollins is now a freelance scientific writer whose clients include biotechnology and pharmaceutical companies.

Read a Journal online exclusive book review on www.amwa.org

ONLINE EXCLUSIVE
In an effort to improve our member services during these uncertain economic times; Ronnie Streff, Communications and Technology Specialist; Duane Brewster, Marketing Manager; and other members of our headquarters (HQ) staff are making some important changes in the “Job Services and Resources” area of our Web site. To begin with, they have arranged the menu items to make it easier for employers looking for ways to reach out to medical communicators. Potential employers who visit the AMWA Web site can easily access information about the many ways they can reach professional medical communicators, including advertising on “Jobs Online,” subscribing to the “Freelance Directory,” exhibiting at the Annual Conference (AC), becoming a sponsor for the AC, and posting on the AC Job Board.

Clicking on the “Job Services and Resources” button on the menu, located on the left-hand side of the home page, reveals a link to information for employers about “Jobs Online,” which includes background information on this service and directions for creating a new ad or editing an existing ad and a link to information for employers about the “Freelance Directory,” including a description of the Directory and information on subscribing to and searching it. Clicking on the “Job Services and Resources” button also provides links to “Jobs Online for Job Seekers” and the “Freelance Directory for Job Seekers.” In conjunction with these changes, HQ staff members are mailing, and/or e-mailing, marketing materials about these services to potential employers, including some who have been recommended by AMWA members.

The Agency for Healthcare Research and Quality (AHRQ) is one of 12 agencies within the US Department of Health and Human Services and supports health services research that is expected to improve the quality of health care and promote evidence-based decision-making. AHRQ is the lead federal agency in charge of improving the quality, safety, efficiency, and effectiveness of the country’s health care. Given our task as medical communicators, the agency’s Web site should be at the top of our priority list of Web resources.

The Web site is divided into 7 separate sections: Clinical Information, Funding Opportunities, Research Findings, Specific Populations, Consumers & Patients, Data & Surveys, and Quality & Patient Safety. Although the site is comprehensive and extensive, it is relatively easy to use, especially if you use the A to Z Quick Index or the Topic Index A-Z in every subsection.

Evidence-based Practice is a subcategory under Clinical Information and contains Topics in Progress and Completed Reports, among others. For instance, evidence reports, abstracts, and summaries for various forms of cancer can be
accessed, as well as comparative evidence reviews in some cases. There is also a report, *Evidence: Its Meanings in Health Care and in Law*. In the same subcategory, you can search Guides, Reviews, and Reports and download files either by condition, keyword, or type of research. For instance, clicking on breast cancer and the box for Guides for Clinicians brings up the final report, *Medications to Reduce the Risk of Primary Breast Cancer in Women: Clinician’s Guide*, which you can download as a pdf file or listen to as an audio presentation.

The Healthcare Cost and Utilization Project (HCUP), which provides facts and figures and data on various procedures, can be accessed from Data Sources Available from AHRQ in the section Data & Surveys. Under Research Findings, one can access Research Topics: Fact Sheets or find study data on long-term care or managed care studies. Data are available on topics from specific conditions, such as asthma, to health care costs to broad topics, such as women’s health. There is a Research Activities online newsletter to which the public can subscribe, as well as any number of e-mail updates in other sections.

There is so much information to access on this Web site, and this review has covered only a few pertinent sections. The National Guideline Clearinghouse, which is part of AHRQ, will be covered in a future issue of the *AMWA Journal*.

**MediLexicon: www.medilexicon.com**

MediLexicon is a Web portal owned by MediLexicon International Ltd., a UK-based Internet publisher of health/medical news and medical information. The Web site provides freely available and daily updated online databases for professionals in the fields of medicine, pharmacy, and biotechnology. Their primary database, Medical Abbreviations, contains more than 200,000 medical, biotechnology, pharmaceutical, and health care acronyms and abbreviations that can be searched either by their abbreviation or definition.

The site has been expanded to include many other resources. In the Medical Dictionary, you can search alphabetically or by phrase (even “fuzzy” phrase) to find definitions and explanations of thousands of medical terms. Under Drugs Search, you can access US Food and Drug Administration-approved prescription drug information by drug name or drug category or by browsing the list alphabetically. There is also a search form for Drugs.com, RX-List, and the electronic Medicines Compendium (eMC), which provides information on UK-licensed medicines. The PubMed Search database provides access to an extensive library of biomedical literature citations and abstracts (powered by Google) in the fields of medicine, nursing, health care systems, preclinical sciences, dentistry, and veterinary medicine. The search was developed by the National Center for Biotechnology Information (NCBI) at the National Library of Medicine (NLM). MediLexicon contains a wealth of other databases you can search, including ICD9 Codes, Medical Equipment (3,000 entries), Hospitals Worldwide (4,000 entries), Pharma Companies, Medical Associations (AMWA is listed), Conferences, The Merck Manual, Medical Images, Clinical Trials, and Disease Search.

You can also access daily medical news onsite, receive e-alerts, subscribe to their weekly online newsletter, or browse the archives. To see how current their reporting was, I searched by subject alphabetically, clicked on “Genetics” and found news on an item I had just received from the NIH. Newsletters are provided by their sister Web site, Medical News Today.

**International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use: www.ich.org.**

The International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) is a joint initiative by both regulators and industry from Europe, Japan, and the United States involving scientific and technical aspects of product registration to ensure and assess the safety, quality, and efficacy of medicines. The focus of ICH has been on the technical requirements for medicinal products containing new drugs.

There is a plethora of information on the ICH Web site, especially for those who write regulatory documents. Medical communicators can download pdfs of guidelines (divided into 4 topic areas: Quality, Safety, Efficacy, and Multidisciplinary), the guideline process, guidelines for the common technical document (CTD) and the electronic version (eCTD), as well as concept papers, by clicking on the menu bar to the left. There is also a Questions & Answers section and another on Training Activities.

**Barbara welcomes suggestions for Web sites to describe or questions about where to find specific information on the Web. She can be reached at barbwoldin@comcast.net.**
I’m On Twitter  
Now What Do I Use It For?

By Katharine O’Moore-Klopf, ELS  
KOK Edit, East Setauket, NY

Twitter isn’t just a pleasant diversion, though it can become one if you don’t manage your time well. Twitter is also a place to keep up with industry news, learn what industry leaders are doing and thinking about, make new client contacts, and meet and build online relationships with colleagues.

I am a freelance medical copyeditor of medical textbooks and medical journals, so I need to know something about what’s going on in many of the life sciences. I don’t have the budget to subscribe to multiple medical or science journals or the time to read through lots of them, so I skim several journals’ tweets Monday through Friday, including those listed here, and follow some of the links to news stories, articles, and blog posts that they provide:

- @bmj_latest: British Medical Journal
- @CircRes: Circulation Research
- @Clin_Chem_AACC: Clinical Chemistry Journal
- @JAMA_current: JAMA
- @JClinPsychiatry: Journal of Clinical Psychiatry
- @MayoProceedings: Mayo Clinic Proceedings
- @NatureNews: Nature
- @sciam: Scientific American
- @Wiley_Nursing: Wiley nursing journals

For industry news, which for me is news about medical publishing and reporting, I follow and sometimes communicate with the following people and organizations on Twitter:

- @BELS_editors: the Board of Editors in the Life Sciences, www.bels.org
- @CScienceEditors: the Council of Science Editors, www.councilscienceeditors.org
- @lippincott: Lippincott Williams & Wilkins
- @medwriterdg: medical writer Debra Gordon, who blogs at http://debragordon.blogspot.com
- @NAPress: National Academies Press
- @SciCareerEditor: Jim Austin, editor of Science Careers, http://sciencecareers.sciencemag.org
- @ivanoransky: Ivan Oransky, MD, executive editor of Reuters Health and author of the blog Embargo Watch, at http://embargowatch.wordpress.com, which reports on and discusses conflicts between members of the press and those who embargo medical, health, and science news; medical journals, pharmaceutical companies, science journals, and government agencies (Read more about Dr Oransky in “Exploring Diversity and Common Ground in Medical Communication,” which begins on page 62.)
- @lisagualtieri: Lisa Neal Gualtieri, who teaches online consumer health and Web strategies for health communication at Tufts University School of Medicine and leads workshops on social media for health

How do you find specific people or organizations to follow?

1. Go to http://twitter.com if you don’t have a Twitter account. Follow the simple directions there to sign up for one. You will be given a link to your own Twitter page.
2. On your Twitter page, click the “Find People” link at the top right side of the page.
3. In the search box that appears, type in the name of the person or organization you’re interested in (eg, Katharine O’Moore-Klopf), and then click the “Search” button.
4. You will be taken to a page (or more) of results. Click on the link connected with the person or organization most likely to be the one you’re looking for.
5. Read some of the tweets made by the person or organization. If you like them enough to see more, click the “Follow” button on the person or organization’s Twitter page, and their tweets will begin showing up on your Twitter page—and in your Twitter feed reader (eg, TweetDeck, www.tweetdeck.com; Seesmic, www.seesmic.com) if you use one.
How do you find people or organizations in a particular field to follow?
1. On your Twitter page, click the “Home” link at the top right side of the page.
2. In the sidebar on the right side of the view you are taken to, there is a search box. In that box, type the name of the topic that you are interested in, and then click the search icon (a magnifying glass).
3. Click on the links to any of the Twitter accounts listed in the results, and decide which ones you want to follow.

Once you begin to see all that you can learn by being active on Twitter, you’ll wonder how you ever got by without it.

Blogging for MEDICAL COMMUNICATION PROFESSIONALS

By Debra Gordon, MS, Williamsburg, VA

Depending on the source, there are upwards of 100 million blogs (which may or may not count the nearly 100 million Chinese blogs). Feeling overwhelmed? Don’t. Each issue, we’ll provide you with a handful of blogs worth adding to your RSS or Google Reader feed for following. Have suggestions for more? Send them to me at debra@debragordon.com.

A Medical Writer’s Musings on Healthcare and Other Issues: http://debragordon.blogspot.com. OK, the title isn’t that catchy and it’s a bit of self promotion, but since I’m writing this column I figured I can get away with it. This is my blog, heavy on health care issues with an occasional freelance writing issue thrown in.

¬ Best for: Those following health policy/reform issues, freelance writers/editors

On Biostatics and Clinical Trials: http://onbiostatistics.blogspot.com
This Web site from Congressional Quarterly offers updates on regulations, offshore trials (think China), and posts guaranteed to get your blood flowing like the recently posted: “When to Finalize the Statistical Analysis Plan?”

¬ Best for: Regulatory writers

Pharmalot: www.pharmalot.com
Anyone doing anything with pharmaceuticals should check into Pharmalot on a regular basis for updates on pharmaceutical-related news and information from around the world.

¬ Best for: Anyone doing anything with or for the pharmaceutical industry

Adventures in Ethics and Science: http://science-blogs.com/ethicsandscience/about.php
You have to love a post that asks the question: “Ethically, which field of science is the worst?” This blog is the brainchild of Janet D. Stemwedel, aka Dr Free-Ride, an associate professor of philosophy at San Jose State University who also has a PhD in physical chemistry. She blogs about the “responsible conduct of scientific research, communication between scientists and non-scientists about the issues that matter to both, and teaching science and ethics.”

¬ Best for: All of us.
Note from the President

By Thomas Gegeny, MS, ELS, 2009-2010 AMWA President

This year’s spring meeting of the AMWA Board of Directors was held April 30 and May 1 in Rockville, MD. A dozen officers and Executive Committee (EC) members, 19 chapter delegates, and 4 staff members were in attendance. The agenda was ambitious, but with much enthusiasm and a lively exchange of ideas and opinions, the important work of our organization has moved forward.

AMWA’s proposed budget for 2010–2011 was discussed and approved. The budget is leaner than in past years, recognizing economic realities that must still weigh into careful consideration. AMWA’s treasurer, Judi Pepin, and executive director, Donna Munari, made painstaking efforts to review every line item and adjust conservatively to ensure AMWA’s fiscal health. While some revenue sources have decreased in the past year (memberships and annual conference, for example), other sources have been increasing (such as enrollments in the new Essential Skills certificate program). While next year’s projected net excess of revenues over expenses is minimal, past years’ surpluses have been wisely reinvested in the organization’s reserves, Endowment Fund, and technology and resources to serve members. AMWA is a fiscally strong organization.

At this meeting, a slate of officers was presented to the Board for consideration. The candidates for the offices of secretary, treasurer, and president-elect were discussed, and the slate was approved. (Per AMWA bylaws, the current president-elect automatically assumes the office of president at the business meeting held at the annual conference this fall.) Please read about these accomplished and dedicated AMWA volunteers beginning on page 85. AMWA will no doubt continue to thrive under the leadership of these hardworking individuals.

To ensure AMWA’s members continue to enjoy unparalleled resources and benefits in their professional development, the Board of Directors approved a motion to apply this year’s Endowment Fund interest to help fund a license for the popular MD Consult journal and textbook resource center (linked from the members only section of www.amwa.org). This is an expensive resource but well worth the investment considering the hundreds of members who access it every month.

AMWA’s educational program continues to grow and strengthen as workshops are developed and organized to fill the 9 new certificate offerings. New specialty workshops are being added in the Concepts in Science and Medicine as well as the Composition and Publication certificate programs. Workshop development in the Research and Regulatory and Business certificates is moving ahead swiftly. This year’s annual conference will feature 94 workshops, including several new ethics-based workshops. Also, a new self-study workshop (text-based) on elements of medical terminology, written by Barbara Gastel, MD, will debut at the conference.

In addition to the reports on education and the annual conference, the Board received updates from a number of other departments including awards, publications, special projects and communications, Web and Internet technology, and chapters and membership. The EC administrators in charge of these departments, the volunteers who serve on their committees, and staff at AMWA headquarters all deserve kudos for keeping AMWA on track and moving forward. Members may not be aware of how much is going on throughout the year to fulfill AMWA’s educational mission and commitment to advance our profession.

To this end, a task force report on certification was discussed by the Board. Led by Mary Royer, this group has researched certification models of other organizations and the implications of developing a program to certify (by examination) medical communicators. Donna Munari also has provided important guidance based on her research and legal consultation. The Board approved a motion that AMWA will pursue the development of a certification program in medical communication. While many details must yet be worked out—and only after considerably more research and coordinated major fundraising efforts—AMWA may one day be able to certify medical communicators according to established criteria that define the professional skills and knowledge requisite to do this work. Expect to hear more about this exciting work over the next few years, but also realize that a program could easily take a couple of years to fully develop and implement.

Another noteworthy development from the meeting was the unanimous vote by the Board of Directors to endorse the recently issued guidelines for Good Publication
Each year, the slate of AMWA officers is chosen by the Nominating Committee, which consists of the president-elect (who serves as chair) and 6 voting members who are not members of the Executive Committee (EC). The Nominating Committee receives from AMWA headquarters the names and biographies of all members meeting the criteria for the 3 elective offices: president-elect, secretary, and treasurer. Members of the committee discuss the potential candidates and select 1 candidate for each position. The names of these candidates are then presented to the Board of Directors for approval at its spring meeting.

The following candidates were approved by the Board of Directors at its spring 2010 meeting:

President-elect: Barbara Snyder, MA
Secretary: Doug Haneline, PhD
Treasurer: Judi Pepin, PhD

President: The president-elect automatically assumes the office of president at the annual business meeting held during the annual conference of the following year. The 2010-2011 AMWA president is Melanie Fridl Ross, MSJ, ELS. A member since 1996, Melanie has served AMWA in many capacities on the national and chapter levels. She is a member of the of the Constitution & Bylaws Committee and of the Budget & Finance Committee, and a past participant on the Task Force on Partnering with Academic Institutions. She currently chairs AMWA's Nominating Committee and the History Task Force. She was awarded AMWA Fellowship in 2008. She has been a member of the EC since 2003, serving as the 2008-2009 public relations administrator, 2007-2008 and 2006-2007 publications administrator, 2006 annual conference administrator (66th Annual Conference in Albuquerque), 2004-2005 chapters/membership administrator, and 2003-2004 chapters administrator. She was a member of the 2006-2007 Science Curriculum Task Force and of the Chapter Newsletter Award Committee in 2004-2005, serving as chair of that committee in 2005-2006. She has been a breakfast roundtable leader at each annual conference since 2004 and was the open session coordinator in 2003; an open session speaker in 2007; and a workshop leader in 2004, 2007, and 2008. She was president of the Florida Chapter from 2002-2003. She earned Board of Editors in the Life Sciences certification in 2000.

Melanie is director of news and communications at the University of Florida (UF) Health Science Center in Gainesville, FL. She also produces the award-winning radio program “Health in a Heartbeat,” which airs on public radio affiliates in 18 states and in Washington, DC, and she is on the adjunct faculty at UF’s College of Journalism and Communications, where she teaches news reporting. For a number of years, she held a dual appointment in UF’s Division of Cardiovascular Medicine as an author's editor. She holds a master's degree in journalism with concentrations in newspaper administration and legal reporting from Northwestern University and was a Washington correspondent covering health for Northwestern’s Medill News Service. She is a former reporter for The Tampa Tribune.

President-elect: The president-elect (1) must be a fellow of AMWA, (2) must have held at least 2 different positions on the Executive Committee (EC) in the past, (3) must have served on the EC for a minimum of 2 full years, and (4) must be a current member of the EC when his or her name is being considered by the Nominating Committee.

Barbara Snyder, MA, is currently serving on the EC as administrator of AMWA's annual conference. There's a running debate as to whether it's easier to teach writing to a scientist or to teach science to an English major. With a strictly liberal arts background (BA in British Literature; MA in American Lit), Barbara says she falls into the latter category. Barbara has 29 years of experience in medical writing for the pharmaceutical industry, starting as the first medical writer hired by Bristol-Myers in 1981. She has set up and led medical writing departments at Lorex Pharmaceuticals and at Procter & Gamble Pharmaceuticals, and is currently the head of Medical Writing at Warner Chilcott (US), LLC. She has been active in AMWA activities at both the chapter and national level for many years, serving as president of the Ohio Valley Chapter, administrator of publications, administrator of development, administrator of education (2 years), and member of the Budget & Finance Committee (5 years), Education Committee (2 years), Constitution & Bylaws Committee (2 years), Science.
Treasurer: The treasurer must have served at least 1 full year on the Budget and Finance (B&F) Committee within the 5 years immediately preceding his or her consideration by the Nominating Committee.

Judi M. Pepin, PhD, has been a member since 1997 and is currently serving a third term as AMWA’s treasurer. She served on the 2006-2007 EC as development administrator, held 3 terms as a member of the Budget & Finance Committee (2003 to 2007), and was a member of the Web and Internet Technology Committee (2005-2006). Judi also served 6 years as treasurer for the Ohio Valley Chapter (2000-2006) and was the Ohio Valley Chapter delegate for 3 years (2003-2006).

Judi is currently a medical writer at Procter & Gamble Pharmaceuticals in Mason, OH, where she has been employed since 1990. She holds a doctorate and a master’s degree in pharmacology and toxicology from the University of Connecticut School of Pharmacy, Storrs, CT, and a bachelor of arts degree in biochemistry from Smith College in Northampton, MA. She completed her postdoctoral training in the department of vascular cell biology and atherosclerosis at Cleveland Clinic.

Secretary: The secretary must have served in at least 2 different positions on the EC within the 5 years immediately preceding his or her consideration by the Nominating Committee and must be a fellow of AMWA.

Doug Haneline, PhD, a teacher of literature and writing for more than 30 years, has been at Ferris State University in Michigan since 1984. He teaches research writing, advanced composition, medical writing, science fiction, American and British Literature courses, and Introductory Latin. Doug is a doctoral graduate of Ohio State University, with prior degrees from Middlebury College and the University of Delaware. Doug is an AMWA Fellow and has served AMWA in several capacities, including administrator of awards, administrator of education, annual conference coordinator (69th Annual Conference in Dallas), chair of the Medical Book Awards Committee, and member of numerous other AMWA committees and task forces. He has also held the position of president of the Michigan Chapter. Outside of AMWA, Doug served on the Michigan Humanities Council, the state affiliate of the National Endowment for the Humanities. He is an AQIP and PEAQ Peer-Reviewer for the Higher Learning Commission.

Questions about how the AMWA election works? Visit www.amwa.org and review new Election Process FAQs posted in the members only section.

References
On November 14, 2009, in a room overlooking the calm water of Como Lake in St. Paul, MN, members and guests of the North Central Chapter gathered to hear 3 panelists share their insights on the turbulence of career changes.

The first speaker, Amy Lindgren, is president of Prototype Career Service (www.prototypecareerservice.com) and a national employment columnist. She acknowledged that attending AMWA events in the 1980s helped her build a foundation for her writing. Her career strategy advice was in 4 categories: skill building, networking, raising your professional profile, and staying on track.

“You need to do skill building,” Lindgren said, “but lean toward the skeptical side of certification.” Ask yourself what you need to do, what you need to learn. Will a certain type of education or certification help you become a better writer? “Be thoughtful about your education,” she said. “People don’t hire people to write because they have a degree in writing. They will look at your clips.” She emphasized that writing “is a continuous skill-building occupation” with writers employed at various levels of proficiency. “Everyone can find a place.”

Lindgren spoke about “purpose-based networking” and the importance of building a professional network. At any stage in your career, networking involves getting information. She suggested that before you attend a meeting, decide who you want to meet—not necessarily a specific person but rather a person who does what you want to do or who has information you need. Talk to people. Do not simply exchange business cards. “Other people around you help you identify your niche,” she said. “Eventually your networking will help you find jobs or leads.”

To raise your professional profile, Lindgren stressed the importance of building your credibility within your field, building your reputation as an expert, and building other skills. “Leverage the experience you already have into a new field,” she said.

When Lindgren spoke about staying on track, she referred to balancing long-term goals with short-term goals. “Your job is a tool,” she said. It is not your entire identity. Your professional goals should complement your personal goals. She recommended asking yourself a question: “Has my work supplanted my life goals or is it feeding them?”

Mary Knatterud, PhD, the second speaker, joined AMWA in 1988 and is an AMWA fellow who has taught many AMWA workshops. She has served the North Central Chapter as president (1992-1993), as a member of the Program Committee (which she now chairs), and as organizer of the Book Club. She worked for the same employer (the University of Minnesota) for 30 years, including 21 years in the Department of Surgery—and then voluntarily changed employers in 2008.

When a surgeon-author left the University of Minnesota for the University of Arizona in Tucson, he asked Knatterud to bring her medical writing and editing skills to Arizona, but she did not want to move. An arrangement was created that allows Knatterud to live in Minnesota and work for the University of Arizona, where she is a research associate professor in the College of Medicine. Now, instead of working with authors 5 miles from her home, the authors are 1,284 miles away.

“I changed jobs at the worst possible time,” Knatterud said, referring to state and national economic problems. "But I have no regrets.” She offered several tips for anyone thinking about a career change:
1. Keep your resume or curriculum vitae current—be ready for a change.
2. If you are thinking of leaving your employer, stay outwardly positive—exit with grace.
3. Have a thick skin—be prepared for hurtful and discouraging comments.
4. Ask your friends and family members for help.

The third speaker, Paul Mamula, PhD, is a self-described “peripatetic scientist” who joined AMWA in 1998. He has served the North Central Chapter as president (2000-2002) and as a member of the Program Committee (which he has chaired) and the Publications Committee.

Mamula originally thought he would be a university professor, but he was in graduate school in the 1980s, when fewer doctoral students in the sciences were finding tenure track faculty or research positions. “I quickly realized that I was going to do something else,” he said. Along the way, he was a postdoctoral fellow and research associate at the University of California at San Francisco and a research scientist at Cedars-Sinai Medical Center in Los Angeles. He
decided to head for industry. “I did land an industrial job in science,” Mamula said. “But that job tanked real quick—for business cycle reasons.” He worked in a laboratory again. In 1997, he responded to a newspaper ad for an associate editor of a medical journal published by the McGraw-Hill Healthcare Information Group. He was hired, but the company was sold in 2005 and employees were laid off. “So I moved on,” he said.

Mamula said that networking and freelance work led to his next position, which was senior researcher-writer at the University of Minnesota’s Center for Infectious Disease Research and Policy, where he worked from 2006 to 2009. When the University of Minnesota cut its budget—and the jobs of more than 1,200 employees—the peripatetic scientist continued his journey. He is now a freelance biomedical writer and editor, while keeping an eye out for full-time positions.


The stories and suggestions of all 3 speakers illustrated the dynamic nature of careers. Situations change—sometimes unexpectedly. To be prepared, focus on factors that you can control, such as building your skills, keeping your resume current, and developing contingency plans. Then you will be better able to navigate the uncertainties of career transitions with greater confidence.

Randall Fitz is a Manuscript Editor for the Section of Scientific Publications at the Mayo Clinic in Rochester, MN.
Chapter Administrator Steve Palmer gleaned discussion topics for the AMWA Spring Chapter Delegates Session from issues raised in the chapter reports submitted for the Board of Directors meeting. Those issues included keeping down meeting costs for chapters and participants; finding new, successful ideas for meeting topics to promote attendance; recruiting new members; finding volunteers to serve as chapter officers; and involving members in vast or widely distributed chapters.

The majority of cost-cutting measures put forth by delegates centered on avoiding meeting room fees. Libraries and corporations have free meeting rooms. Other public entities charge minimal fees. Hotels always charge a room fee, but restaurant fees are negotiable. Smaller meetings can be held in members’ homes. Weekday lunch meetings fit into members’ regular schedules if the location is convenient with respect to their workplaces.

There was general agreement that AMWA members come to meetings for business content rather than socialization. Consequently, food need not be a costly component. Morning meetings might offer only complimentary beverages (bottled water, coffee, and tea). Dinner meetings can be economized by careful cost comparison; buffets are sometimes more expensive than meals.

Purchasing audiovisual equipment may help curtail rental fees. The Northwest Chapter purchased a dependable LCD projector for about double the cost of a single projector rental. It paid for itself in a single budget cycle. While technology is advancing rapidly, obsolescence is not a major concern for PowerPoint presentations.

Delegates agreed that meeting attendance is fostered by offering good topics. A new content idea was “Speed Networking” giving participants 5 minutes to exchange information one-on-one before moving on to the next person. Panel discussions, 5- to 15-minute quick seminars, and roundtable discussions offer a variety of presenters and focus ideas. The Chicago area chapter is trying a job fair. Discussion about recruiting new members focused on welcoming newcomers to meetings and following up with them. Using a generic business card with officer e-mail addresses that remain active (eg, pres@amwachap.org) gives continuity to recruitment efforts. Panel discussions geared toward those who are looking to enter the field, as well as referral to the AMWA Web site and The Accidental Medical Writer, help provide direction. Using LinkedIn for data mining was also recommended.

Finding new chapter officers can be a daunting task. Suggestions included making newbies aware that they can seek officer positions without “starting at the bottom and working their way up”; assuring candidates that they will be supported and mentored by past officers; breaking jobs into smaller portions to make responsibilities less intimidating; and writing well-defined standard operating procedures and job descriptions.

Delegates encouraged chapters to explore Internet advances (eg, GoToMeeting®) to meet the challenge of connecting with chapter members across great distances.

Executive Director Donna Munari responded to a question about bylaw changes by reminding delegates to review their chapter bylaws to ensure alignment with national bylaws.

Minutes of the BOD meeting will be available on the AMWA Web site. Interested members are also referred to the chapter reports, which were given to all delegates.
I still tease Peter about relocating his practice to an old Windy’s restaurant. He claims the layout is ideal. Apparently, it allows for 3 to 4 patient rooms and has the requisite 2 drive-through windows. The drive-throughs certainly have streamlined Peter’s practice. His staff now consists of 5 people: 2 nurses, a receptionist, and 2 medical technicians. One technician operates the analyzers, and the other ensures the MDiArm™ functions properly.

Although gene therapy, stem cells, and immunomodulators have certainly changed health care in profound ways, some credit for the dramatic declines in cancer rates and central nervous system disorders should be given to the Eco-Nutrition movement. Prior to the 2020s, very few people grew their own food, with most relying on imported and processed foods. Although it’s common knowledge today, eating locally grown organic foods “boosts immune systems and global ecosystems,” as the catchy Eco-Ad goes. Only a minority of people were aware of this prior to Mercin’s seminal study.

Thankfully, Mercin definitively demonstrated that homegrown whole-food eaters were 50% less likely to develop cancer, diabetes, and neurodegeneration compared with their processed food-eating cohorts.1

The Eco-Nutrition diet and curative treatment modalities have certainly changed in my life. No treatment report today…cholesterol was normal, no abnormal SNPs, and my pancreas has fully regenerated. Cheers to all, and to all a good night.

Reference
Michele Vivirito is a gifted writer who has held ever-increasing responsibilities in the field of medical writing. But before Michele was a writer, she was a teacher. She continues to teach at every opportunity.

In her career as a special needs teacher, Michele had to write long narrative reports on her students’ progress. “The reports were based in statistics because we had to compare how a particular child did against the norm,” she explains. “I enjoyed doing that so much that I wrote reports for other teachers.”

After 7 years, she began exploring career opportunities where she could further use her writing skills. She found an opening for a medical writer at Allergan in Irvine, CA. “The FDA had just come out with its rules about how clinical study reports should be written and submitted, so Allergan and other companies were looking for what eventually came to be called regulatory writers. I felt lucky to be hired.”

Michele did both regulatory and publication writing at Allergan from 1980 through 1996. In 1997, she joined Amgen Inc. in Thousand Oaks, CA, and today, she is a Medical Writing Director and Principal Writer in the Global Medical Writing Department. She is responsible for the development of medical journal articles, as well as abstracts, posters, and podium presentations for scientific meetings. She also runs a mentoring program for new Amgen writers.

“Mentoring is a powerful way to train writers,” she says. “It’s a confidential relationship. You’re not their manager and you don’t share the nuts and bolts of the mentoring session with their manager. What I often tell the people I mentor is, ‘I want to know the thing about your writing job that is keeping you awake at night.’

Soon after she switched careers, she discovered AMWA. “When I went to Allergan, another writer in the department, a member of AMWA, told me about the organization,” she says. “I joined in November 1980, and attended the 1981 Annual Conference, which was held in Los Angeles. I started taking core curriculum courses, which I found very useful.”

Michele served in various capacities in the Pacific Southwest Chapter, including Treasurer and, in 1990-1991, President. At various times, she was co-registrar and registrar for the chapter’s Asilomar Conference. At the national level, she has been AMWA Secretary, the Annual Conference Coordinator (2007), the Awards Administrator, and a member of the Science Curriculum Task Force. She is serving as the Short Sessions Coordinator for the 2010 Annual Conference. Throughout, she remains a committed teacher – serving as a roundtable leader for nearly 2 decades, as well as an open session speaker. She was honored with AMWA Fellowship in 1993.

“I am a big supporter of AMWA,” she says. “AMWA crosses all of the boundaries. It’s a place where I can speak to journal editors and freelance writers, to people who are at universities or in independent medical writing. In my job, I’m often asked, ‘How do medical writers in another setting tackle this issue?’ When I’m asked a question like that, I can get on the phone with someone I know and say, ‘How is it done in your world?’ AMWA has been a huge benefit to me personally and professionally.”

Always the teacher, Michele is an instructor in the Master’s in Regulatory Sciences program at the University of Southern California. Also, every Thursday evening, she works with incarcerated girls as a volunteer literacy tutor for the County of Ventura, CA. “Literacy tutoring has become a passion for me,” she says.

“Michele is an AMWA treasure!” says Mary Royer, long-AMWA member and current AMWA secretary. “She is a born teacher and mentor. If you ever have the good fortune to work with Michele on a project, she will initiate you with a clear, complete, concise, and eloquent summary of everything you need to know to get started.

“Had it not been for Michele’s encouragement and faith in me, I might never have gotten involved with AMWA at all,” continues Royer. “Michele took a chance on me and encouraged me to co-chair the roundtable breakfasts with her. I did well enough that my offer to chair the roundtables solo the next year was accepted. If Michele hadn’t given me a chance, I would have missed out on all I have learned and the many contacts and friends I have made.”
Barbara Gastel, MD, MPH, has been selected as the recipient of the 2010 John P. McGovern Science and Society Award, presented by the international research society Sigma Xi. The award, named after the same physician as AMWA’s McGovern Award, recognizes individuals who are prominent spokespersons for the public understanding and appreciation of science. Dr. Gastel will receive the award at the 2010 Sigma Xi Annual Meeting and International Research Conference in November and will deliver a lecture as part of the honor. Dr. Gastel is Professor in the Veterinary Integrative Biosciences Department at Texas A&M University College of Veterinary Medicine & Biomedical Sciences and Professor in the Department of Humanities in Medicine at the Texas A&M Health Science Center College of Medicine. She is the long-standing editor of Science Editor, the journal of the Council of Science Editors (CSE), a tenure she is ending in May. She has worked actively to promote science communication abroad. She served as the US coordinator for the China Medical Board Program in Biomedical Writing and Editing, based in China, for the 12 years of its existence; was a visiting professor of technical communication for 2 years at Beijing Medical University (now Peking University Health Science Center); and has led delegations of medical writers to Russia and Estonia and to China and Mongolia as part of the People to People Citizen Ambassador Program. Gastel’s latest effort to improve medical communication abroad is her involvement in AuthorAID—an international endeavor to help researchers in developing countries publish their research in scientific journals, in part by pairing them with “mentors” with substantial experience writing or editing scientific papers. Dr. Gastel is the recipient of many AMWA awards, including the Southwest Chapter’s John P. McGovern Award for Excellence in the Field of Medical Communications (2006), the Harold Swanberg Distinguished Service Award (1998), and the Golden Apple Award (1993). She was elected a Fellow of AMWA in 1991.

Arnold Melnick, DO, FACOP, achieved the signal point of his 200th published professional article with the publication of his Melnick on Writing column in the March issue of the AMWA Journal. All of Dr. Melnick’s published works are on the topics of medical communication, pediatrics, and medicine. In addition to his AMWA Journal column, he writes a regular column for Pulse, the quarterly publication of the American College of Osteopathic Pediatricians, and for The DO, the monthly magazine of the American Osteopathic Association. Among his 6 published books are Medical Writing 101: A Primer for Health Professionals, which was recently adopted by the University of Brescia (Italy) as the official text for its several courses in Medical Linguistics (Medical English), and Professionally Speaking: Public Speaking for Health Professionals, which was translated into Spanish and published in Mexico.
Geoff Hall

Geoff Hall passed away on April 9, 2010, following a long and valiant fight against cancer. Geoff was one of those “characters” who contribute to the personality of an organization. He could always be found (usually in the bar) holding court, surrounded by his multitude of friends—some of decades standing, and some made just minutes prior. He was one of those rare individuals who just seem to bring out the best characteristics of those who came within his field of attraction: friendliness, camaraderie, humor, and inclusiveness.

Geoff was one of the founders of the European Medical Writers Association (EMWA), helping to nurse the organization from an informal gathering of medical communications professionals in the early 1990s to a thriving professional association, with members from around the globe. Geoff earned the signal honor of being awarded the inaugural Nick Thompson Memorial Fellowship in 1997 and served as EMWA President in 1999-2000. He was instrumental in the attempts to forge a formal relationship between AMWA and EMWA and served as the EMWA liaison.

Since the early 1970s, Geoff’s writing career encompassed advertising and public relations; technical, medical, and marketing documents; editing (magazines and a book); and even travel writing. In an unpaid capacity, he was actively involved in research ethics in the United Kingdom for about 15 years, serving on the Ethics Committee of the Royal Brompton Hospital in London. He had been a speaker or workshop leader at most EMWA conferences.

Before retiring, he spent his last 4 working years as a freelance medical journalist, contracted to a news agency, was a technical advisor to branding agencies, and wrote content for consumer-oriented medical Web sites.

Geoff also served as the informal EMWA historian, writing an article in a recent issue of the EMWA journal, *The Write Stuff*. I invite you to read this entertaining and informative recollection at: [www.emwa.org/Home/History-of-EMWA.html](http://www.emwa.org/Home/History-of-EMWA.html).

Survived by his wife, Pat, and 2 sons, Matthew and David, Geoff will be missed by his many friends and colleagues—the world is a bit dimmer for his passing. Donations may be made to the Princess Alice Hospice, and a special Web site has been set up for contributions ([www.justgiving.com/brooge](http://www.justgiving.com/brooge)).

—Art Gertel
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“It’s time to go. Now!” I said for the tenth time yesterday morning. I had started with, “We need to go in 15 minutes.” Fifteen minutes became 10, and I was still telling my 5-year-old son to go to the bathroom and get dressed so we could head out the door. Erik continued to play with his Ben10 action figure and ignored my warning. Ten minutes became 5. “If you don’t get your clothes on RIGHT NOW, I’m taking that toy for the rest of the day,” I threatened. This caused a change of clothes and a trip to the bathroom. But then we were left with socks and shoes. The big problem with footwear is that it comes in unattached pairs, and the individual parties can lie in separate hiding spots. Some mornings I curse the whole human race for being bipedal.

Erik attends preschool every weekday morning. He plays with his friends, has a snack, and makes art projects out of ordinary household objects, like egg cartons or uncooked pasta. And then he comes home after lunch. He loves school; he charges into the classroom once he gets there. But getting him there is a challenge. Tired of the morning threats, I recently instituted a reward chart system. Reward charts help us high-achieving parents think we have a simple system for transforming our child’s behavior. All it takes is a grid, a reward, and some stickers, right?

Erik has to do 3 things every day to earn his weekly allowance: get ready for school on time, get ready for bed on time, and pick up his toys at the end of the day. The reward chart system was going reasonably well until yesterday morning, when Erik decided he’d rather rearrange his Ben10 figures than put on socks and shoes. “If you don’t get those shoes on in the next 2 minutes, you won’t get a sticker for this morning, and you’ll lose 50 cents out of your allowance,” I said. “Fifty cents is not a lot of money,” he shrugged. “Fine, you’ve lost 50 cents. And if you don’t get socks and shoes on RIGHT NOW, Ben10 is mine.” This caused enough activity for the footwear to be donned and for us to get out the door, but I had already lost my cool.

“Boy, you sure are a mad mom this morning,” Erik said. Truly, he has no shame. I should have known a sticker chart would have little power over such a child. “Get in the car,” was all I could say. All the way to school, I gripped the steering wheel with white knuckles. “Mommy, I needed my Ben10 guys to protect you from bad guys. I had to get them into position.” The boy may be shameless, but he can turn on the charm. “But we need to get to school on time,” I said. “And I need to work.” Then he laid down the second punch in the charm–guilt combo. “I want to spend time with you,” he said. “That’s what makes me take so long.”

This kid has everything: a comfortable, loving home; grandparents who dote on him almost daily; a preschool he loves. And I still sometimes feel like I’m not giving him enough.

Some days it seems like being a working mom consists of an alternating cycle of frustration and guilt. Caring for a child drives me so crazy I need to work to stay sane. But the push to get my son to school leaves me feeling like I’m shoving him out of the nest before he’s ready. I feel this guilt in spite of knowing how savvy Erik is: he triggers the guilt because he knows he can. If I stayed home with him full time, he’d be bored, and I’d be grumpy—even grumpier than I am during our crazy morning routine.

By the time I dropped Erik off yesterday morning at preschool, I was calm enough to realize half of his classmates have stay-at-home moms. Some of these moms also complain about the morning struggles in their homes, and some even tell me how lucky I am to be working part time. With this perspective, it became almost easy to say to my son, “We’ll play this afternoon. Right now it’s time for school.” And then, as usual, Erik ran ahead without even a glance back at his mom.

Jennifer King, PhD, ELS, is president of August Editorial, Inc. She can be reached at jking@auguesteditorial.com.
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Feature Articles: Original compositions that are timely and relevant for medical writers and editors (approximately 3,000 words).

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