AMERICAN SOCIETY OF ANESTHESIOLOGISTS

NEWSLETTER

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The Year of the Airway

Read about the ambidextrous airway pioneer Chevalier Jackson on page 18.

Don't forget to register for the 2008 Annual Meeting!

Volume 72, Number 9
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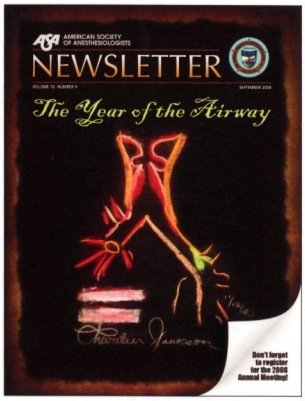

It's the Year of the Airway! The articles featured in this *NEWSLETTER* introduce us to the pioneering "Chev," tell the story of a lucky child who lived to breathe another day, and challenge longstanding notions of "who was first."

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Contact the ASA Executive Office at (847) 825-5586 to obtain the addresses and telephone numbers for state medical society programs and services that assist impaired physicians.

Crown Jewels or Ugly Step Children? The Care and Feeding of the Foundations

The opinions expressed here are those of the editor and do not represent official ASA policy. The editor is completing a final term as a Trustee and Secretary-Treasurer of the WLM.

Douglas R. Bacon, M.D., Editor

The August Board of Directors handbook arrived with its usual set of interesting reports, resolutions and other business of ASA. While this editorial is in press in early August, long before the directors have had a chance to meet, modify, refer and decide, I was struck by two series of reports – one dealing with the "Institute of Quality" and the other centering around the proposed 2009 budget. Is the "Institute of Quality" another foundation, only classified differently, that ASA must now fund? And why are our current Foundations still being underfunded, especially the Wood Library-Museum of Anesthesiology (WLM)? Should we not honor our commitments first before we support new projects?

The ASA Institute of Quality appears, from the proposal submitted by the Administrative Council, to be in the best interests of the Society. The heart of the institute will be an attempt to make anesthesia safer by tracking the performance of individual anesthesiologists and comparing their anesthetic outcomes to a national database. This database is at the heart of the quality institute. The vision statement, "The ASA Quality Institute will become the primary source of information for quality improvement in the clinical practice of anesthesiology," would make the institute the source for reports and rebuttals of the performance of the specialty's practitioners. Additionally, as the American Board of Anesthesiology Maintenance of Certification (MOCA) requires a quality improvement project every 10-year cycle, the ASA Institute of Quality would be a possible key resource for those pursuing recertification and completing this requirement.

Money does not seem to be an issue. The institute, like the Foundations, is set up to be a tax-exempt 501 (c)(3) public charity. The Administrative Council is asking for a budget of several hundred thousand dollars to start the institute with a future promise of non-dues revenue. Yet the reality may well be that the institute will wind up competing with the Foundations for industry funding. While the ASA Institute of Quality is a hip, avant-garde notion, can it really deliver as promised in the 45 pages of the handbook devoted to it? Is this institute worth more than the WLM, whose funding has taken a drastic cut in 2008 and for which a similar decrease is proposed for 2009? Certainly quality in today's market sells better than history, but will that be true in a decade, and will the institute deliver as the WLM has since the 1930s? Are we mortgaging our heritage to pay for our future?

As the Secretary-Treasurer of the WLM, I have a vested interest in the argument I am trying to make. To understand my point, a little history behind the finances of the WLM and why this seems so unfair to me is necessary, for I purposely have not discussed this with my fellow officers or the Trustees of the WLM. Paul M. Wood, M.D., was first elected Secretary-Treasurer of the New York Society of Anesthetists in 1930. The New York Society was a forerunner of the current ASA, and it was Paul Wood who would help transform the group from a New York City-based to a national organization as the 1930s progressed. Dr. Wood was a collector of medical memorabilia and books. His apartment on Riverside Drive soon was overflowing with material – which he donated to the Society in 1933. Four years later, the collection was housed within the ASA offices in the Squibb building in New York. Through its many travels, the WLM has always been a part of ASA, although it was not until ASA expanded its first Park Ridge building that the collection was given a permanent home.

In the 1980s, as ASA expanded, the library-museum was "taken over" and its space drastically reduced to accommodate the many new staff members the larger Society needed. When the new Park Ridge office was opened in the early 1990s, once again the WLM had the luxury of space and a place to display the collections and store the archives. Both ASA and WLM have grown, and much of the WLM-occupied space in Park Ridge has been converted to offices for ASA staff. While it may seem unfair, the space issue truly is not unjust – the important functions of the library-museum remain virtually unchanged. What is problematic is that the rare visiting scholars who wish to use the collection have a difficult

Continued on page 2

time finding places to read and study the books, manuscripts, papers and other archival material that make up our unique collection. The gallery on the main floor remains a showcase of the progress of our specialty – from the simple masks and early vaporizers of the 1840s to the sophisticated machines used in contemporary operating rooms. An audio tour is available to guide visitors through this sampling of anesthesia history.

In budgeting for 2008, the Section on Fiscal Affairs and all those involved with the finances of ASA were concerned about the proposed deficit budget. In an effort to balance the budget, many committees and groups were asked to make sacrifices for the greater good of the organization. Interestingly, the Anesthesia Foundation's and the Anesthesia Patient Safety Foundation's (APSF's) funding were left intact. The Foundation for Anesthesia Education and Research (FAER) was denied additional funding. After considerable discussion, it was approved that FAER's funding would remain unchanged. The WLM's funding, however, was cut in half. Through years of frugal fiscal policy, the library-museum was in a strong position to make such a sacrifice, and did so willingly. Concern was expressed at the WLM Board of Trustees – as the group had just approved the hiring of a fifth individual – that in the long term, the endowment would not be able to sustain the continual removal of funds. The greater concern, though, was this third shift in ASA financial policy toward the foundations in less than 15 years.

In the early 1990s, ASA asked the Foundations to become financially independent. Fundraising by all the Foundations became intense, and industry sponsors were besieged with multiple foundation requests. At the WLM, many worthy projects were put on hold as money was funneled into the endowment in hopes of being self-sustaining by the year 2000. In the late 1990s, ASA again changed its policy and promised funding in perpetuity to the Foundations, unless there was a marked deficit in the budget. The Board of Trustees, borrowing evidence-based medicine techniques, began to look at what would be the best way for the organization to use its funds to achieve its long-term goals. A collections manager was hired as was an assistant librarian and an archivist. With these new employees in place, spending increased and the WLM began to run a small deficit, covered by the interest from the endowment. Finally, for more than a decade, the WLM did not see an increase in funding, which also amounted to a significant funding cut as inflation decreased the purchasing power of the money each passing year.

The 2009 proposed budget, which will be debated at the Board of Directors meeting in August and the House of Delegates in October, contains a very small surplus. It also contains the proposal for a very necessary dues increase of $150. What I find disconcerting is, with this proposed slight budget surplus, the WLM was again funded at the 2008 level, half of what it had received from ASA in 2006. The other Foundations are likewise affected, yet the proposal for the "ASA Institute of Quality" is put forth unabashedly. Quite simply, I find that ASA, in its dealings with the WLM, is not acting to fulfill the promise it made, while the WLM has acted as honorably as possible.

Finally, why do we need the "ASA Institute of Quality" as an independent, Washington D.C.-based entity? Would it not make more sense to place it under the auspices of APSF, the world-recognized leader in patient safety, as the institute strives toward better anesthesia care? Alternatively, would it be better housed under the rubric of FAER, whereby the research uses of this database could be exploited by those with experience in these matters? Better yet, why not the University of Washington, where the very similar Closed Claims Project database is billeted and the infrastructure is already present to manage a large, cumbersome database, and the necessary protections for research are in place, especially in light of Health Insurance Portability and Accountability Act regulations? There are advantages in each instance, and costs most likely would be less as the infrastructure to care for part of the proposal has been created and tested.

In the end, I believe that the Board of Directors and the House of Delegates will, after hearing testimony at the various reference committees, come to the proper conclusion and do what is "right" for ASA, the proposed ASA Institute of Quality and the WLM. Each member who has an opinion about the ASA Institute of Quality and the funding of the Foundations needs to express that clearly, either in person at the reference committees Sunday afternoon during the Annual Meeting in Orlando, or via letter to me or to their ASA Delegates. These issues are important enough to make your voice heard.

— D.R.B.

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1. Bause GS. The Nine Lives of Paul Wood's collection: The Wood Library-Museum of Anesthesiology. In: Bacon DR, Lema MJ, McGoldrick KE, eds. *The American Society of Anesthesiologists: A Century of Challenges and Progress.* Wood Library-Museum of Anesthesiology Press. 2005:55-74.

Keeping an Eye on the Horizon ... And the Bottom Line

John M. Zerwas, M.D.
Treasurer

Control your destiny, or someone else will!
— Jack Welch

Throughout my career, I have often found it useful to study industries outside our own profession. This quote by Jack Welch, former CEO of GE, is one of many lessons he has shared with the business community. It would seem to have great relevance at a time when ASA is embracing a bold new vision to be "the premier medical specialty society in the world." The book *Good to Great*, by Jim Collins, is another very good source for lessons that other organizations have experienced in their journeys to sustainable excellence.

John M. Zerwas, M.D.

More than a year ago, Mark J. Lema, M.D., Ph.D., ASA President in 2006-2007, embarked our Society on a journey referred to as the Organizational Improvement Initiative (OII). This effort has continued under the presidency of Jeffrey L. Apfelbaum, M.D., and will likely have a lasting presence for many of our future officers. The purpose of this column is not to review the numerous elements of the OII, but rather to provide the membership with a sense of the value realized with this bold effort.

At year-end 2007, ASA invested nearly $1 million over budget in various activities related to our mission and strategies. A substantial portion of that investment was related directly to the OII. The return on this investment is quite evident in the talent and resources now available to the Society. Human resources has been substantially improved with talent and policies previously not incorporated into the organization. HR Director Karen Buering, M.B.A., SPHR, now heads up this function, which was sorely lacking. Our executive roles have been bolstered by the additions of Executive Vice President – Park Ridge John Thorner, J.D., CAE, and Chief Financial Officer Thomas Conway, M.B.A., C.P.A. Additional talent has been focused on marketing and education. In addition, talent has been added to the Washington Office under the very able leadership of Executive Vice President – External Affairs & General Counsel Ron Szabat, J.D., LL.M. As evidenced by this activity, the first step ASA has taken to "control our destiny" has been, to quote Jim Collins, "get the right people on the bus." Mr. Collins goes on to say, "People are *not* your most important asset. The *right* people are." ASA is getting the *right* people on the bus.

For several years prior to the OII, ASA reserves grew by several million dollars due to conservative budgeting and wise investment strategies. This has positioned the Society well to make investments in 2008 similar to those in 2007. Our current-year budget is forecasted to make an even greater commitment to our OII efforts. Diversification of our portfolio of reserves and the incorporation of a "spendable account" have been key strategies contributing to our financial resilience.

However, your leadership clearly understands that there is a limited ability to continually fund such efforts from our reserves. To that end, the 2009 budget will reflect an even greater scrutiny of our expenses. In addition, we realize that we have become dependent on a dues structure that is outdated and perhaps not consistent with best practice among professional societies. In 2001, our $450 dues supported the ASA staff and activities that were in place then. If one considers that if ASA, at a minimum, were to maintain the same 2001 staff size and activities, after inflationary increases, $584 dues would be necessary in 2009 to fund 2001 activities. The Board of Directors approved a 2009 budget that calls for an increase in active member dues to account for the inflationary impact since 2001 and the strategic direction that will enhance ASA programs and activities. In an effort to bring greater value to the membership, James D. Grant, M.D., Assistant Treasurer, and John Thorner will co-chair a committee to explore opportunities to enhance our revenue from current ASA products as well as new revenue-enhancing opportunities. This committee will "think out of the box" and bring new ideas to reduce our dependence on the member dues structure. Though this can be a slippery slope, as evidenced by the AMA/Sunbeam fiasco, the leadership is committed to learning from others' experiences and avoiding costly mistakes. When it comes to revenue diversification, there are far more success stories than there are failures.

By investing in our Society today, we are clearly controlling, and in fact defining, our destiny. This has certainly been the practice of our predecessors and is a great foundation to build upon. I want to thank our current president, Jeffrey L. Apfelbaum, for his bold and tireless efforts on our behalf. Because of his dedication, the future will be even brighter and stronger for future generations of anesthesiologists.

To Tell the Truth

Candace E. Keller, M.D., M.P.H.
Speaker of the House of Delegates

"In a time of universal deceit, telling the truth is a revolutionary act."

– George Orwell

Candace E. Keller, M.D., M.P.H.

I suppose I betray my age when I confess to my recent recollection of an old television show titled "To Tell the Truth." The basic premise of the show consisted of the identification of a "central character" from a choice of three possibilities by a panel of inquisitors. The game would begin when the host and the panel of celebrity "judges" would read a sworn testimony signed by the real person called an "affidavit" regarding his or her true identity. The three contestants each claimed to be this person and were then interrogated in turn by the panel. The judges voted for the challenger they believed to be the central character. Once the votes were in, the host would ask, "Will the real (person's name) please stand up?" After some brief false starts among all three challengers, the central character would stand and the two imposters were required to reveal their real names and what they actually did. Prize money was awarded based on how successful the imposters were at bluffing; the more wrong votes they drew, the larger their final cash award would be!

In 2006, the National Council of State Nursing Boards (NCSNB) expressed its goal of independent practice for advanced practice nurses (APNs) in a draft document titled "Vision Paper: The Future of Regulation of Advanced Practice Nursing." It clearly articulates that "the APRN will practice independently without the supervision of a physician." In accordance with Recommendation 7, "Fully licensed APRNs will be independent practitioners. After licensure, there will be no regulatory requirements for supervision." With respect to nurse anesthetists, "boards should no longer require physician supervision." As one means to achieve this end, approximately 200 nursing schools are expected to offer the doctor of nursing practice (DNP) degree by 2015.

ASA, an association now representing more than 43,000 anesthesiologists, is actively addressing this issue. In an excellent letter, our president, Jeffrey L. Apfelbaum, M.D., strongly urged the National Board of Medical Examiners (NBME) to reverse its decision to create a certification examination as currently written for DNP graduates. His letter stated:

"While we fully support the advancement of education in order to improve patient care, the growing trend to confer a DNP degree is a major threat to patient safety. Nurses who will have successfully passed NBME's DNP exam will identify themselves to patients as 'doctors' in both the clinical setting and through advertisements. Patients led to believe that they are receiving care from a 'doctor,' who is not a physician (M.D. or D.O.), but who is a DNP may put their health at risk. This introduction will create confusion, jeopardize patient safety and erode the trust inherent in the true patient-physician relationship." (Dr. Apfelbaum's letter may be found in its entirety on the ASA Web site at www.asahq.org/news/NBMELetter62708.pdf.)

The ASA and its governmental affairs division are actively advocating for legislation at both the federal and state levels to protect patients from misrepresentation of their qualifications by non-physician allied health professionals. At the 2008 ASA Legislative Conference, attendees promoted support of H.R. 2260, the "Healthcare Truth and Transparency Act," a bill that was introduced by Rep. John Sullivan (R-OK) to provide additional protection for patients by specifying that it should be a violation of federal law, enforceable by the Federal Trade Commission (FTC), for non-physician providers to misrepresent their education, skills or training. Recognizing that patients will be confused when a nurse represents oneself to a patient as "doctor," Florida and Oregon have already enacted legislation to prevent such misrepresentation. However, most states do not yet have such avenues in place.

As we face the upcoming election cycle and the challenging task of reforming our health care system to provide more access to needed medical services at an affordable cost, we as physicians first and anesthesiologists second must be ever mindful that we are bound and distinguished by the inextricable ties of many long years of education and training in rigorously monitored, robustly accredited schools and programs of medicine or osteopathy and anesthesiology. We must step up to the plate and be more aggressively involved in the fight. We must write letters, make calls and open up our pocketbooks for political causes.

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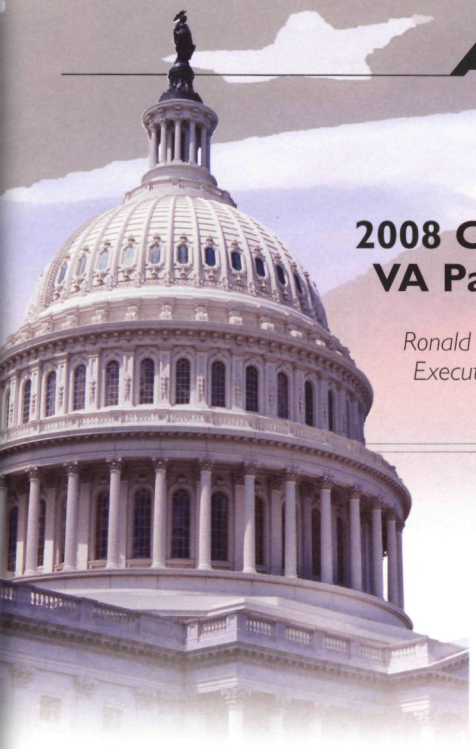


2008 Congressional Agenda Wrapping Up – VA Pain Bills Moving Forward

Ronald Szabat, J.D., LL.M.
Executive Vice President – External Affairs and General Counsel

Following closely on the heels of ASA's historic win on our key Medicare payment and teaching rule reform issues, as detailed in last month's *NEWSLETTER*, ASA is pleased that Congress has continued moving forward on key pain medicine bills.

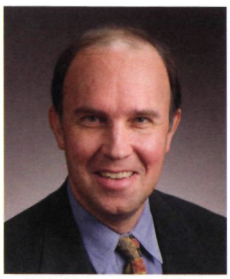
For example, just before leaving town last month for its usual summer recess, the U.S. House of Representatives approved seven bills that would improve health care delivery and augment services for veterans provided by the Department of Veterans Affairs (VA).

Among these important measures was H.R. 6445, as amended, the "Veterans' Health Care Policy Enhancement Act of 2008," most recently introduced by newly elected Rep. Don Cazayoux (D-LA). As passed by the House, this wide-ranging bill would direct the VA to develop and implement a comprehensive policy on the management of pain experienced by veterans enrolled for health care services provided by the VA. Another far-reaching VA bill, passed by the Senate, contains identical language. Now, the push is on this September to reconcile these two measures so that our veterans would begin to get the VA pain Medicare care treatment that they need.

Following passage, House VA Chairman Bob Filner (D-CA) stated that *"today, we have considered several comprehensive and bipartisan bills that go a long way to address the health care needs of our veterans and provide for their necessary and earned benefits. I believe that the tireless work of the members of the House Veterans' Affairs Committee has provided this Congress with strong legislation which will help to improve the lives of our nation's veterans. I look forward to working with my colleagues in the Senate so that we can further increase access and improve health care treatment for our veterans."*

ASA strongly agrees, and during September we are working with our partners in the Pain Care Coalition to see that this worthy bill, particularly its important pain provision, is enacted into law.

Scholars of the tortured path of legislation will note that the key section number four on VA pain care in H.R. 6445 was originally introduced as H.R. 6122 by Rep. Tim Walz (D-MN). The Walz bill was based on Title II of S. 2162, which was a compromise on pain advanced by Senators Daniel Akaka (D-HI) and Richard Burr (R-NC), as negotiated by the Pain Care Coalition, which passed the Senate in early June. The Akaka-Burr bill was based largely on an original Akaka pain bill, S. 2160. Consequently, the same pain language is in both the House-passed and Senate-passed VA packages. This is good news, but, as above, other elements in each package are very different, and so a concerted effort will be required to keep this vital legislation moving this month before Congress adjourns for its fall campaigning and the November elections.



Ronald Szabat, J.D., LL.M., is ASA Executive Vice President – External Affairs and General Counsel, managing its Washington, D.C. office.

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Lewis H. Wright Memorial Lecture

Jerry A. Dorsch, M.D., and Susan E. Dorsch, M.D., to Present

Susan A. Vassallo, M.D., Chair
Lewis H. Wright Memorial Lecture Committee
Wood Library-Museum of Anesthesiology

This year's distinguished guests are Jerry A. Dorsch, M.D., Associate Professor Emeritus, Mayo Medical School, Mayo Clinic, Jacksonville, Florida, and Susan E. Dorsch, M.D., Jacksonville, Florida.

Jerry and Susan are the sole authors of the classic textbook *Understanding Anesthesia Equipment*, now in its fifth edition (2008). They have devoted their careers to explaining the mechanics of anesthesia machines, ventilators, vaporizers and monitoring devices in a comprehensive and orderly fashion. Generations of anesthesia residents and student nurse anesthetists have relied upon this book during their training, and it also has served as a reference resource for senior clinicians.

Over the book's 33-year publication history, their fascination with anesthesia devices has never faded, and now the names "Dorsch and Dorsch" are synonymous with "our equipment."

Jerry and Susan grew up in Wheeling, West Virginia. They met during the summer before Jerry's first year of medical school and Susan's senior year of college. They both graduated from West Virginia University School of Medicine and were married in 1967. Jerry completed an anesthesia residency and critical care fellowship at the University of Pittsburgh, and Susan completed an anesthesia residency at Mercy Hospital in Pittsburgh. During Jerry's first year of residency, they attended their first major anesthesia meeting in Miami, which focused on "Complications in Anesthesia." At a panel titled "Complications of Equipment," they were surprised and appalled at how little the panel members really knew about anesthesia equipment. When they asked themselves,

Jerry A. Dorsch, M.D., and Susan E. Dorsch, M.D.

Susan A. Vassallo, M.D., is Anesthetist and Assistant Professor of Anaesthesia, Massachusetts General Hospital and Harvard Medical School, Boston.

'Beyond Blue Lips: Advances in the Prevention of Hypoxia'

"Where do you look for this information?" they recognized the need for one complete reference source dedicated to only anesthesia equipment. Hence arose the idea and ambition to write their first book – while they were still in training!

E.S. Siker, M.D., was Susan's chief at Mercy Hospital, and from the outset he supported the Dorsches' concept. While on a speaking tour, he shared the Dorsches' proposal with other anesthesiologists. He returned to Pittsburgh with news that their idea had generated genuine interest. Dr. Siker advised the couple to proceed, arguing that even if a book were never published, they would gain in-depth knowledge about anesthesia equipment. Dr. Siker offered to review their manuscript and to provide photographic and medical illustration services. With secretarial help from Mercy Hospital and library assistance from the University of Pittsburgh, the Dorsches wrote a table of contents and two chapters just in time for the ASA Annual Meeting in October 1970. They approached various textbook companies, received favorable responses from two publishers, and within a few months signed a contract with Williams and Wilkins in Baltimore.

The Dorsches completed their training in 1971 and moved to Orange Park, Florida, where Jerry spent two years at the Naval Medical Hospital in Jacksonville. Susan worked part-time in private practice while their children were young. In 1975, the first edition of *Understanding Anesthesia Equipment* was published. The book was 311 pages, cost around $30 and was a huge success. Subsequent editions were published in 1984, 1991, 1999 and 2008. The third and subsequent editions included a chapter on "Complications of Anesthesia Machines and Breathing Systems," and the first topic discussed was "Hypoxia."

This year's Lewis H. Wright Memorial Lecture is titled "Beyond Blue Lips: Advances in the Prevention of Hypoxia." The topic evolved from the Dorsches' interest in both anesthesia equipment and advancements in safety. Susan participated in the development of the first standard for anesthesia machines in the United States (1979).[1] Key features of this standard were the inclusion of the oxygen fail-safe device, a consistent location of the oxygen flowmeter, and a unique knob for the oxygen flow control valve.

In 1982, the producers of "20/20" asked the couple to appear in a television story on the risks of anesthesia. The crew visited Jacksonville, and in the actual broadcast, Susan discussed the oxygen analyzer and how it could detect a hypoxic gas mixture in the breathing circuit. The story's final clip profiled a patient who suffered intra-operative hypoxic brain injury. The show generated considerable angst among the public, and some patients cancelled or delayed elective surgery after its broadcast. Although we take it for granted, oxygen analyzer use was not required in the 1980s, and its introduction into anesthesia practice was a milestone in our specialty's safety initiatives.[2]

The Wood Library-Museum of Anesthesiology is honored to have Jerry and Susan Dorsch as the 2008 Lewis H. Wright Memorial Lecturers. *Understanding Anesthesia Equipment* has been in print since 1975. Unfortunately, the fifth edition will be the final text by these authors. Thousands of anesthesiologists and nurse anesthetists have read their words and studied their illustrations, and anesthesia libraries throughout the world hold this book. We thank Dr. Jerry Dorsch and Dr. Susan Dorsch for their efforts to explain the intricacies of anesthesia equipment. Their work spotlighted potential pitfalls in our early anesthesia machine designs and brought to the forefront strategies to detect and prevent hypoxia. These achievements merit a place of honor in our specialty's history.

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2. Dorsch SE, Dorsch JA. Use of oxygen analyzers should be mandatory. *Anesthesiology*. 1983; 59:161-162.

The Year of the Airway

Lydia A. Conlay, M.D., Ph.D., M.B.A., Vice President and Trustee
Wood Library Museum of Anesthesiology

The Anniversaries of the Airway

Each September, as chair of the Wood Library-Museum of Anesthesiology (WLM) Publicity Committee, I have the privilege of acting as the "Compiler" of a section of the *ASA NEWSLETTER*. We aim to update the membership on issues related to our professional heritage and the activities of the WLM. This year celebrates what can be dubbed as "The Year of the Airway," recognizing the 100th anniversary of the development of the Hewitt airway, the 75th anniversary of the Guedel airway and the 25th anniversary of the laryngeal mask airway. This year also marks the 50th anniversary of the passing of Dr. Chevalier Jackson, who invented the practice of and the first oral devices for inspecting airways, retrieving foreign bodies and for endotracheal intubation as we know it today.

The literature regarding the development of anesthetic airway devices could no doubt fill volumes. Indeed, when preparing for this issue, the ever-efficient WLM staff asked, "Just exactly what IS an airway? Is it a mask, a device put into the oropharynx, an endotracheal tube, a tracheostomy, or a part of a person's anatomy?" Our answer was "Yes," and this issue touches upon each of these concepts of "airway" in some manner. On page 18, George S. Bause, M.D., and Jonathan Berman, M.D., et al. show the evolution of the airway (the one placed in the oropharynx) until the present time. Kathryn E. McGoldrick, M.D., and Selma H. Calmes, M.D., write about two pioneers of airway development, Sir Frederic Hewitt, and Arthur Guedel, M.D., on pages 10 and 14, respectively. Sir Frederic developed the first airway, and in addition to his airway inventions, Dr. Guedel was assisted by a dog named "Airway." Chevalier Jackson is the topic of two articles by Dr. Bause, and Charles C. Tandy, M.D., and is pictured on the cover.

Lydia A. Conlay, M.D., Ph.D., M.B.A., is Professor of Anesthesiology, Baylor College of Medicine, Houston.

Recent Acquisitions

One of the WLM's missions is to provide a repository of scholarly information regarding the development of anesthesiology to be available for research projects from around the world. Toward this end, the WLM recently acquired items from a personal collection auctioned at Christie's in London.[1] Participating in this endeavor was not an idle undertaking. To register as an absentee bidder, Dr. Tandy was required to supply not only a credit card but also references from his bankers. Then there were questions as to which items would provide information complementary to that currently in the WLM, and how much to bid (that is, the maximum bid that the WLM would place for any given item). For this, Drs. Bause and Tandy researched previous auctions to compare the sale price of comparable items. Bids were ultimately placed on about half of the items, and the WLM obtained many, but not all, for which bids were placed.

Paul M. Wood Distinguished Librarian Patrick Sim and I continue our sojourn from East to West by describing ancient anesthetics from ingestion to inhalations using other articles from the Christie's acquisition. We were delighted with the response to our article in last year's September edition, titled "Acupuncture From East to West: Chinese Medicine and Therapeutics: Early Texts Represented in the WLM Collection."[2] In response to our comments regarding the origins of acupuncture in early China, a neuro-

Figure 1: Tattoos on the "Iceman" in areas resembling acupuncture points. Image courtesy of South Tyrol Museum of Archaeology www.iceman.it.

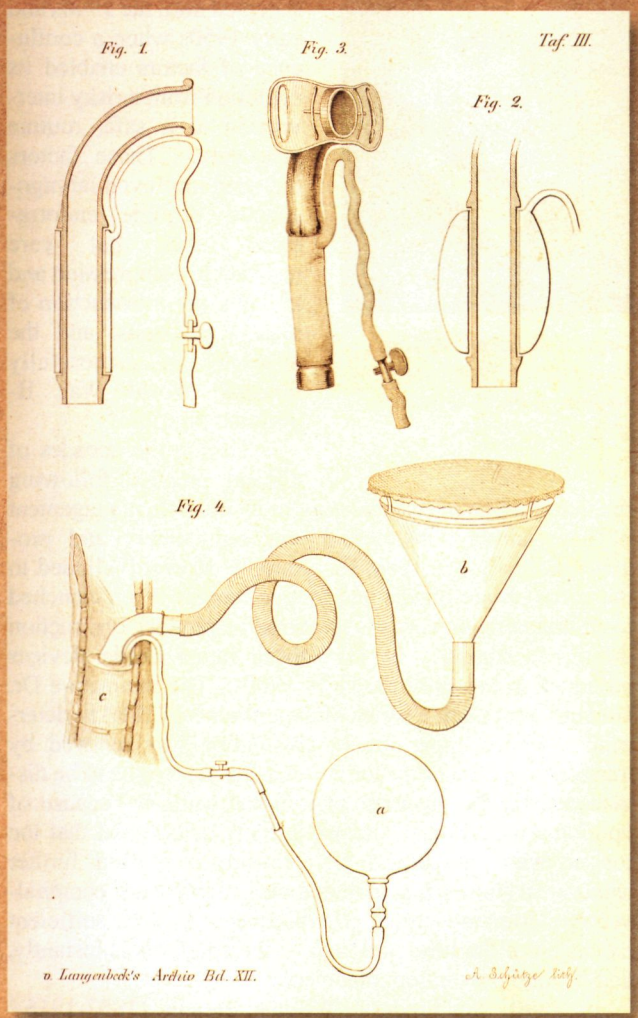

Figure 2: Trendelenburg's tracheostomy apparatus.

physiologist (not an anesthesiologist) brought to our attention that acupuncture perhaps even had its roots more than 5,000 years ago. Indeed, the "Ice Man" recently discovered in the Italian Alps has tattoo marks over many of the acupuncture meridian [Figure 1, page 8][3]

The Chinese did, however, no doubt influence generations of anesthetists to come. In the second century, Hua To performed surgical procedures after a "narcotic" drink (possibly containing *cannabis indica*). The Japanese Master Seishu Hanaoka, M.D., was influenced by Hua's work[1] and authored another of the recently acquired items. Adolph "Buddy" Giesecke, M.D., and Hanaoka scholar Akitomo Matsuki describe a beautiful "gem" of a book containing hand-drawn watercolors circa 1805, which record Hanaoka's use of general anesthesia half a century before ether was used in Boston. Yet another item that fits nicely in the theme of the airway is a first-edition printing by Friedrich Trendelenburg, M.D., describing a new technique of tracheostomy and a piece of equipment used to prevent aspiration [Figures 2 and 3].[1] The Trendelenburg book sold for an astonishing £563.

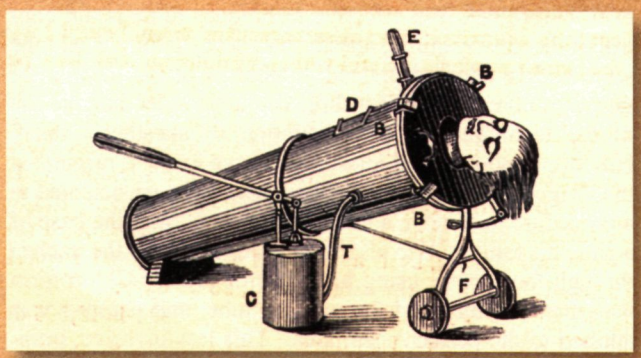

Figure 3: Eugene Woillez's "Spirophore."

Preserving Scholarly Information About Anesthesiology

Two of the items featured in this issue warrant special mention. The cover of this issue is a pastel drawn by Chevalier Jackson for one of his residents, who in turn donated the pastel to the Menzer Collection of the Hartford medical and dental societies. These organizations recently decided to liquidate their historical holdings. On very short

Continued on page 17

Sir Frederic William Hewitt: The Man and His Airway

Kathryn E. McGoldrick, M.D., Past President
Wood Library-Museum of Anesthesiology

Acrescive specialty, anesthesiology is an intriguing amalgam of medical knowledge, drugs, equipment and techniques that has developed in a gradual, rather than explosive, fashion over many decades. Superb airway management skills are the *sine qua non* of an accomplished anesthesiologist, but advances in this domain initially were costive at worst and incremental at best. Indeed, before the development of techniques and equipment for safe and effective airway control, airway management was sometimes perilous and typically left much to be desired. Primitive inhalers, drop techniques and mask anesthesia could produce unconsciousness but could not prevent airway obstruction. Indeed, the inimitable Joseph Clover was the first English anesthetist to proselytize for the now universally accepted jaw thrust as a method to open an airway obstructed by a large, relaxed tongue. (Always ahead of his time, in 1877 this respected pioneer performed an emergency cricothyroidotomy by inserting a curved cannula of his own design into an airway that had become totally obstructed by an oral tumor.) Decades were to pass, however, before safe and effective techniques to maintain control of the airway during anesthesia via an endotracheal tube were widely adopted. Indeed, intubation of the trachea for purposes of resuscitation is three centuries older than the use of the technique for administration of anesthesia itself. However, endotracheal anesthesia as we know it originated in Glasgow in 1878 when William Macewen participated in a procedure to remove a malignant growth from the base of a patient's tongue.[1] He inserted a metal tube into the trachea through the mouth, using his sense of touch. Chloroform was then administered through the tube, and packing was applied to the perilaryngeal area. This less invasive, intraoral approach to endotracheal anesthesia followed multiple iterations involving surgical access to the airway.

It seems reasonable to assume that the design of airway devices was based on clinical circumstances and perceived requirements of the era. Endotracheal intubation, therefore, was not widely accepted until the 1940s and early 1950s when a confluence of factors enabled its evolution from a risky intervention to a safe, routine procedure. These factors included improved laryngoscopes, durable endotracheal tubes that were resistant to compression and kinking, the introduction of muscle relaxants, and the necessity to successfully manage World War II-inflicted injuries.

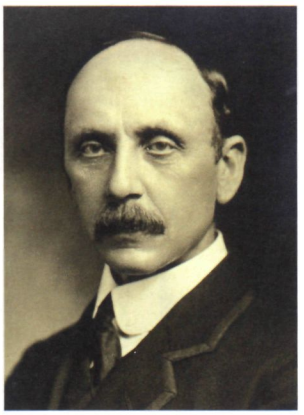

Figure 1: Sir Frederic William Hewitt (1857-1916) was the preeminent British anesthetist of his era.

During the decades of clinical practice following the introduction of surgical anesthesia in 1846, management of upper-airway obstruction was rudimentary and progressed slowly. In 1880, for example, Howard[2] alluded to the value of jaw-prisers and tongue forceps when clenched teeth and perhaps vomitus triggered respiratory obstruction during anesthesia. In fact, these rather crude devices remained in use until the early 1900s. The inquisitive Dr. Howard undertook a series of experiments in 1880 to determine whether upper-airway obstruction was relieved by traction on the tip of the tongue causing the tongue to be displaced from the posterior pharyngeal wall, or because of epiglottic movement. Having initially determined that the tongue was the culprit, Dr. Howard conducted further anatomical studies that included measurements of occipital-vertebral joint movement. He discovered that "by sufficient extension of the head and neck ... the epiglottis is instantly, and beyond prevention, made completely erect."[3]

In 1890, Sir Frederic William Hewitt (1857-1916)[4] [Figure 1] wrote a classic summary of the causes and management of airway obstruction, but it was not until 1908 that he developed the forerunner of many model oropharyngeal airway designs.[5] It had a circular metal ring with a deep groove to fit between the teeth and a beveled rubber tube that was ≤ 8 cm long and had an internal diameter of 12 mm. Intended for use only when respiration was obstructed, it was inserted with the bevel upward to face the laryngeal orifice. The first model [Figure 2, page 11] may have had only limited

Continued on page 12

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AN ARTIFICIAL "AIR-WAY" FOR USE DURING ANÆSTHETISATION.

By FREDERIC W. HEWITT, M.V.O., M.A., M.D. CANTAB.,

ANÆSTHETIST TO HIS MAJESTY THE KING; PHYSICIAN-ANÆSTHETIST TO ST. GEORGE'S HOSPITAL; CONSULTING ANÆSTHETIST AND EMERITUS LECTURER ON ANÆSTHETICS AT THE LONDON HOSPITAL.

ON several previous occasions, not only in the columns of THE LANCET but elsewhere, I have endeavoured to establish the proposition that in most of the cases in which difficulties arise during general anæsthesia these difficulties are directly dependent upon mechanically obstructed breathing and that this condition, occurring as an incident, introduces into administrations an auto-asphyxial element the true nature of which is frequently misunderstood. It has been pointed out that whilst there are many different varieties of mechanically obstructed breathing—i.e., many different ways in which the respiratory pump may be thrown out of gear independently of any defect in the nerve energy at its disposal—these varieties are capable of being arranged in two main groups. In Group 1 we have obstructive states dependent upon the operation of causes *within* the upper air-passages, and in Group 2 we have obstructive states dependent upon the operation of causes *external* to those passages. As an example of obstructed breathing of the former kind may be mentioned that arising from altered position, spasm, or swelling of the tongue. As an illustration of mechanically impeded breathing of the latter kind, that dependent upon spasm of the external respiratory muscles may be cited. On the present occasion I propose to deal only with the treatment of certain of the obstructive conditions of the first of these two groups and to confine my remarks to cases in which the respiration of semi-anæsthetised or anæsthetised patients becomes partially or completely obstructed owing to occlusion of the air-tract *above the larynx*.

Were it customary, as in physiological experiments, to introduce anæsthetic gases and vapours into the pulmonary passages through a tracheal cannula the text-book descriptions of the clinical phenomena of incipient and complete general surgical anæsthesia would markedly differ from those with which we are now familiar. Under such circumstances we should obtain far more equable results in our administrations and there would be much less intercurrent respiratory disturbance. But as it is necessary in surgical practice to introduce anæsthetics through the ever-varying nasal and oral passages this smoothness in anæsthetisation cannot be depended upon. The upper air-passages of all subjects are liable to alterations in their conformation and calibre during general anæsthesia. This is specially noticeable in certain subjects, e.g., the thick-set and plethoric, whose upper air-passages are naturally narrow; in certain postures, e.g., the Trendelenburg, in which the tongue gravitates towards the palate; and in certain operations, e.g., rectal, which have a tendency reflexly to produce spasmodic tongue retraction. Everyone who has paid much attention to the clinical aspects of general anæsthesia knows how frequently he has to adopt some means for preserving a free air-way. In some cases the jaw must be pressed forwards or the chin pulled up continuously; in others, a mouth-prop adjusted to meet the special peculiarities of the case is required: whilst in others again it is necessary to apply tongue forceps in order to insure free breathing.

The question here presents itself: Should anæsthetic gases and vapours be administered through the oral or through the nasal passages? It is interesting that the natural tendency towards nasal as opposed to oral respiration persists in a marked and often in an inconvenient degree during general anæsthesia. Even though a patient, obeying instructions, commence to breathe orally he will tend, as anæsthesia deepens, towards purely nasal respiration, and this nasal respiration frequently proves inadequate. Whilst nasal breathing is undoubtedly of paramount importance in everyday life it is, as a rule, inferior to oral breathing during the induction and maintenance of general anæsthesia. Suffocative sensations during induction are generally due to nasal respiration, the nasal passages being of insufficient calibre to allow of that quantity of oxygen reaching the lungs per minute which is essential to full blood oxygenation, and hence to the patient's comfort during incipient anæsthesia. It is true that when anæsthesia has become established nasal respiration may under certain conditions, be quite satisfactory, these conditions being (1) the existence of spacious nasal channels, and (2) a sufficiently high oxygen percentage in the atmosphere presented to the patient. But it often happens in practice that the nasal passages, either from pre-existing conditions within them, or from causes which have arisen during the administration, do not permit that *free* intake of oxygen by the lungs which is necessary in order that all asphyxial phenomena may be prevented. With such a restricted inlet to the respiratory pump the abdominal and thoracic muscles necessarily become thrown into exaggerated action; and muscular rigidity, cyanosis, dilatation of the pupils, separation of the lids, and even pallor may result. Auto-asphyxia thus insidiously arising is not infrequently mistaken for chloroform overdosage, surgical shock, or other conditions.

In order to secure free and exclusively oral respiration when administering anæsthetics it is necessary (1) to keep the teeth or gums apart; (2) to keep the tongue away from the palate and pharynx; and (3) to block the nasal channels. The little appliance here figured effects this in most cases—not, perhaps, in all, because of the great variations which exist in the conformation of the upper air passages of different subjects. It consists of a circular metal ring,

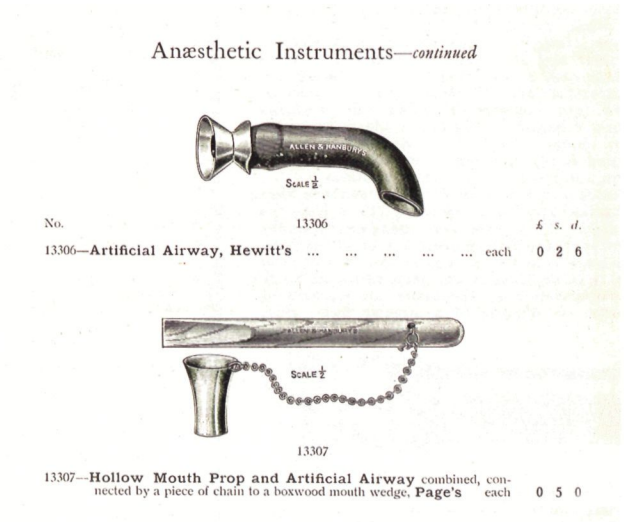
with an internal diameter of half an inch, and with a deep groove in its outer circumference to allow of the ring being held firmly by the teeth. The two flanges which result from the presence of this circular groove or trough are of unequal size, the smaller projecting within the mouth and the larger outside the teeth or gums. From the inner circumference of the ring there also projects into the mouth a short metal collar carrying a portion of indiarubber tubing the free end of which is cut obliquely or whistle-shaped, as shown in the figure. The tubing should have a maximum length of about three and a quarter inches, a clear internal bore of half an inch, and its wall should be sufficiently thick to prevent kinking. By a simple screw adjustment in the collar the rubber tube may, if desired, be removed from the metal ring which will then act as a mouth prop.

The artificial "air-way" is not intended for use in every case. It is principally serviceable in those cases in which respiration is performed with some embarrassment or difficulty owing to the upper air-tract being more or less obstructed. If at the conclusion of the induction period, when the patient should be settling down into smooth and deep anæsthesia, the breathing be laboured and noisy, with sniffing or snorting sounds—if, in other words, the patient be "taking the anæsthetic badly" or "breathing badly"—the jaws should be separated and the whistle-shaped end of the "air-way" passed backwards into the pharynx, so that the oblique opening of the rubber tube faces the laryngeal orifice, and the metal ring adjusted so that it is grasped by the teeth or gums. The substitution of free oral for imperfect nasal or oral respiration will, in the great majority of cases, immediately be followed by slower and quieter breathing, an improvement in colour, and greater muscular relaxation; in fact, by an altogether better type of anæsthesia. Should there be much jaw spasm at the moment when it is desired to introduce the "air-way" it may be necessary to separate the teeth by means of a Mason's gag. It is advisable to secure a fairly deep anæsthesia before the instrument is placed *in situ*, otherwise inconvenient reflex retching and coughing may be excited. The appliance is, in fact, only suitable for cases in which it is desired to maintain a fairly deep anæsthesia. As regards the administration after the introduction of the "air-way," it must be remembered that with the more free intake of atmospheric air less anæsthetic will be required. In cases in which partial occlusion of the upper air-tract exists much of the vapour which is presented to the patient never actually gains access to the pulmonary passages. If, therefore, a certain rate of administration has been in force during the period of hampered breathing this rate must be reduced when the insertion of the "air-way" has secured free respiration, otherwise an unnecessarily deep anæsthesia will result. As the air-way does not project beyond the lips it may be used either during the administration of ether, chloroform, or chloroform mixtures. The writer finds it of great value when anæsthetising patients in the Trendelenburg posture, for in this posture the swollen tongue frequently obstructs breathing.

Messrs. Barth and Co. of 54, Poland-street, Oxford-street, London, W., are the makers of this artificial "air-way." I am indebted to them for having made other experimental appliances for me whilst working at this subject.

Queen Anne-street, W.

Figure 2: The original Hewitt airway as it appeared in the February 15, 1908 issue of The Lancet.


Anæsthetic Instruments—*continued*

ALLEN & HANBURYS

SCALE ½

No.	13306	£ s. d.
13306—**Artificial Airway, Hewitt's**	each	0 2 6

SCALE ½

13307

13307—**Hollow Mouth Prop and Artificial Airway** combined, connected by a piece of chain to a boxwood mouth wedge, **Page's** each 0 5 0

Figure 3: A modified version of the original Hewitt airway.

Continued from page 10

success in managing the position of the tongue, because soon a curved model extended its length [Figure 3]. Other modifications of Hewitt's original idea by various anesthetists followed, addressing the issues of liquid anesthetic being dripped down the airway during drop or mask administration,[6] combined delivery of vapor[7] and ease of cleaning.[8]

Hewitt had a well-deserved reputation for being meticulously attentive to detail, methodical, lucid, observant and inventive. These traits are amply evidenced in the following comments taken from Hewitt's 1908 publication in *The Lancet* describing his "artificial air-way":

The upper air-passages of all subjects are liable to alterations in their conformation and caliber during general anaesthesia. This is especially noticeable in certain subjects, e.g., the thick-set and plethoric, whose upper air passages are naturally narrow; in certain postures, e.g., the Trendelenburg, in which the tongue gravitates toward the palate; and in certain operations, e.g., rectal, which have a tendency reflexly to produce spasmodic tongue retractions. Everyone who has paid much attention to the clinical aspects of general anesthesia knows how frequently he has to adopt some means for preserving a free air-way. In some cases the jaw must be pressed forward or the chin pulled up continuously; in others, a mouth-prop adjusted to meet the special peculiarities of the case is required; whilst in others again it is necessary to apply tongue forceps in order to insure free breathing.[5]

Important as Hewitt's prototypical airway was, it was neither his only nor his most notable achievement. Indeed, Hewitt followed John Snow and Joseph Clover as the preeminent British anesthetist.[9] Born in London, he went up to Christ's College, Cambridge, in 1876 and next graduated in medicine from St. George's Hospital Medical School, London. His vision, unfortunately, deteriorated as a result of an obscure retinal condition and he decided to pursue anesthesia as a career, a decision that was practical during an era when general anesthesia was administered by holding a mask over the patient's face and palpating his or her pulse. Hewitt quickly earned the respect of his surgical colleagues who especially valued his cool composure and steadfast determination during difficult situations. He was an avatar of professionalism, and his surgical colleague and steadfast friend, Mr. Marmaduke Sheild, observed, "Hewitt possessed the quality of supreme self control. Naturally a nervous and sensitive man, he became as steel when confronted with dangers and unforeseen emergencies. In one of his earlier cases a patient of some importance was suddenly affected with that rare complication – persistent spasm of the glottis after gas administration, and apparently became lifeless in the dental chair. Hewitt opened the trachea with an ordinary pen knife and held the wound open until a tube was introduced and the patient's life saved."[10]

In 1887, Hewitt invented the first practical machine for administering nitrous oxide and oxygen in fixed proportions. For his "gas and oxygen" machine, he constructed at home (with the assistance of his capable wife) a complete model in cardboard from which the makers produced the actual working machine. He also modified Junker's chloroform inhaler, improved the design of dental mouth-props, and redesigned Clover's inhaler. The author of two important textbooks that appeared in the late 19th century, Hewitt upheld the high standard of British anesthesia that was endangered after the death of Clover in 1882. Both these texts ran to five editions. The prodigiously industrious Hewitt was also a founding member of the Society of Anaesthetists in London.

Hewitt was appointed anesthetist to His Majesty in 1901. On June 27, 1902, Hewitt administered anesthesia to Edward the Seventh for drainage of an appendiceal abscess two days before the scheduled coronation. The royal patient recovered quickly and uneventfully from the anesthetic, allowing the ceremony to eventually take place on August 9, 1902. Not surprisingly, after this episode, Hewitt's clinical practice greatly expanded. He gave anesthetics to other members of the royal family, and his skills were frequently requested by surgeons when persons of eminence, especially if seriously ill, required anesthesia. Hewitt was appointed to the Royal Victorian Order in 1902, and received the honor of knighthood in 1911.

An indefatigable patient safety advocate, he vigorously lobbied for better teaching of anesthesiology to medical students, and for more meticulous care in the

Hewitt's Recommendations

(1903; *Lancet*. Dec:1683-1685)

- In all institutions in which anaesthetics are frequently administered, special departments should be formed ...
- There should be at least one special officer to control the department ... and in large hospitals... provide for the efficient working of the hospital.
- The administration of every anesthetic should be conducted or supervised by an officially appointed anaesthetist ...
- Resident anaesthetists should be appointed ...
- Appoint senior anaesthetists ... possessing the highest medical and surgical qualifications...

administration its importance deserves. He engaged in a crusade to convince both his own profession and the public of the necessity to develop the respect for the art of administering anesthesia that its critical importance deserves. Impressively, the prescient Hewitt in 1903 wrote a letter to *The Lancet* recommending that large hospitals should have an anesthetic department with a director, additional senior anesthetists and resident anesthetists. In a departure from the prevailing zeitgeist, Hewitt refused to accept that the great majority of deaths under anesthesia were unavoidable; he passionately believed in the importance of personal qualifications and education. It was incomprehensible to him that people could blithely submit themselves to the influence of the most potent drugs in the *British Pharmacopoeia* administered by ignorant, ill-trained personnel. In 1909, he persuaded the government to draft a bill to ban the administration of anesthetic agents by unqualified people and to separate the responsibilities of the anesthetist from those of the surgeon. World War I, however, intervened to prevent the bill's passage. It can be fairly said that Hewitt did more than any of his contemporaries to advance the status of the anesthetist as well as the specialty of anesthesia.[9]

On a personal level, Frederic Hewitt was kind and unassuming, with a capacity for friendship that endeared him to many. His great friend Mr. Marmaduke Sheild eulogized him with the words: "In all his professional differences with others, he always bore himself with courtesy and moderation ... As we mortals define success, it came to Hewitt: eminence in his profession; few enemies and a host of warm and admiring friends; happiness in his home; a sense of duty done; and a life most nobly spent."[10]

As we reflect on the centennial anniversary of Sir Frederic William Hewitt's innovative "air-way," we understand anew that his rich legacy is cause for celebration, inspiration and emulation.

Acknowlegement:

The author would like to express her gratitude to Felicia Reilly, Archivist of the Wood Library-Museum of Anesthesiology (WLM), and Patrick Sim, Paul M. Wood Distinguished Librarian of the WLM, who provided invaluable assistance in obtaining historical literature pertaining to Dr. Hewitt and his airway.

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Dr. Arthur Guedel's Contributions

Selma H. Calmes, M.D., Member
Wood Library-Museum of Anesthesiology Board of Trustees
President, Board of Trustees, Guedel Memorial Center

Arthur Guedel, M.D. (1883-1956), of Indianapolis and Los Angeles, made many important contributions to modern anesthesia practice. He introduced techniques and equipment for N_2O analgesia in obstetrics, defined the stages of ether anesthesia and wrote a very popular early textbook on anesthesia, among many other contributions. Probably the most important contributions – indeed his lasting legacies – were development of the modern cuffed endotracheal tube (cuffed tubes were known as early as 1871 but were forgotten) in collaboration with his close friend, Ralph Waters, M.D. (1883-1979) of the University of Wisconsin, and his design and production 75 years ago of a rubber oral airway with a metal bite block. All these were the result of Guedel's acute skills of observation, his desire to solve the problems encountered and his drive to keep working until suitable solutions were found. His skills as a "tinkerer," probably the result of work as a machinist in a saw factory as a young boy, gave him the mechanical ability to produce anesthesia items that might solve problems he observed. His mechanical ability came in spite of a saw factory accident at age 13, which caused the loss of the first three fingers of his right hand. He was right-handed.[1]

What led Guedel and Waters to work together on the cuffed endotracheal tube? They met at anesthesia meetings sometime after 1927, when Waters moved to Madison, Wisconsin. Guedel at the time was in Indianapolis. The two had many similar interests and characteristics and quickly became friends. Their frequent letters document the many problems for the development of professional and scientific anesthesia then, and the issue of cuffed endotracheal tubes was the first subject extensively discussed. Guedel was already working on making a cuffed endotracheal tube when their friendship began.

Selma H. Calmes, M.D., is an anesthesiology consultant for the Los Angeles County Coroner's Office.

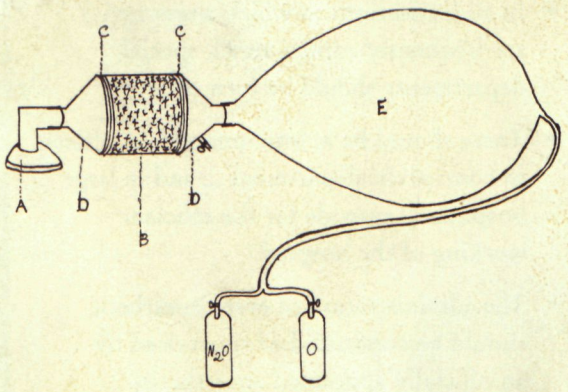

Figure 1: Waters' CO_2 absorption system, introduced in 1924.
Source: Waters RM. Clinical scope and utility of carbon dioxide filtration in inhalation anesthesia. *Curr Res Anes Analg.* 1924. 3:20-21.

"Endotracheal" anesthesia before 1928 meant "intratracheal" anesthesia, also called the "insufflation technique." A small rubber catheter was placed in the trachea after anesthesia was established by mask; the catheter was then attached to a gas delivery system. Waste gas exited out the open trachea. Cuffed tube techniques were known before they published their method, as early as 1871, but had not come into clinical use for numerous reasons. Guedel and Waters were not aware of the past efforts to make cuffed tracheal tubes.[2,3]

Guedel reasoned that a cuffed tube would maintain a patent airway and also protect the lungs from aspiration of blood, secretions and gastric contents. Positive pressure ventilation could be used, making intrathoracic surgery possible. He set up a laboratory in the basement of his Indianapolis home and studied airway anatomy, using lamb tracheas purchased by his wife at the local butcher shop, and worked on ways to seal off the trachea. He was also at this time trying out Waters' new CO_2 absorption technique.

Waters introduced his system for CO_2 removal in 1924.[4] A metal canister held solid soda lime; one end of the canister was attached to the mask, and a reservoir bag was at the other end. Gases moved to and fro in the system, and the patient's CO_2 was removed by the soda lime. Fresh gas (only small amounts were needed, essentially only O_2 consumed by the patient, in contrast to the high gas volumes needed for the "intratracheal technique") was delivered either to the end of the reservoir bag or close to the mask

to Airway Management

attachment. As Guedel used the Waters set-up, he found it was awkward to hold the mask and deal with the heavy metal canister, which was close to the face. The set-up also interfered with surgical access to the head. Somehow, Guedel had the idea of sealing off the trachea with a cuffed tube, eliminating the need to hold the mask. Also, the trachea could be protected from aspiration, positive pressure could be used, and it was less expensive than the "intratracheal technique" because only small volumes of gases were needed and the surgeon could access the head easily.

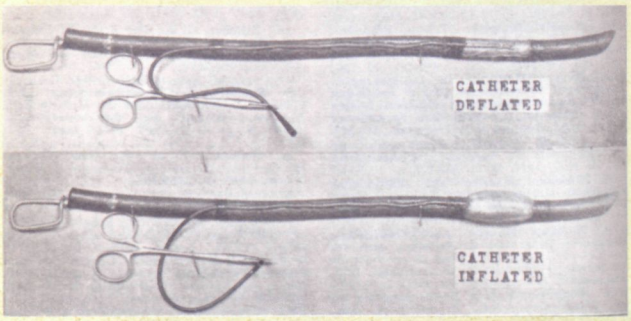

Figure 2: First picture of a modern cuffed endotracheal tube, designed by Guedel and Waters. The tube was 14 inches long and had an internal diameter of only three-eights of an inch. The cuff was made by Guedel from either a dental dam or a Penrose drain.

Source: Guedel AE and Waters RM. New intratracheal catheter. *Curr Res Anes Anal.* 1928; 7:238-289.

Guedel made the first cuff from fingers of rubber gloves. He next used a rubber condom, with the ends cemented around the tube. The first cuff was between three and four inches long and was designed to lay half above and half below the glottis. Deep anesthesia was needed to keep this cuffed tube in place. The Guedel-Waters letters (held at the WLM and the Arthur E. Guedel Memorial Anesthesia Center) document the many discussions the two had on what should be used for the cuff, where it should be positioned and how to introduce it. Guedel went on to cuffs made from dental rubber dams. These were 1.5 inches long and designed so the upper edge was just below the vocal cords. This was known as the "flat" type cuff and is the one pictured in Guedel and Waters' paper on the cuffed tube, published in July-August 1928.[5]

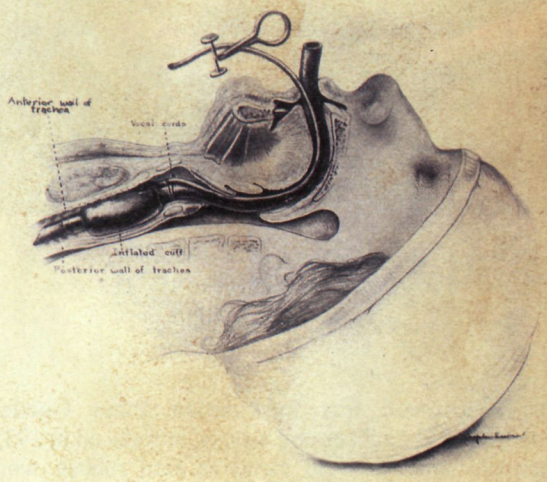

Figure 3: Their illustration of the inflated tube in position, in a 1931 article for ENT surgeons.

Source: Guedel AE and Waters RM. Endotracheal anesthesia: New technique. *Ann Otol Rhino & Layrno.* 1931. 40:1139-1145.

By April 1928, Guedel was often giving anesthesia with a cuffed tube. In fact, he did patients first and dogs afterward! After filling patients' mouths and noses with water and documenting that there were no gas leaks from the trachea, Guedel had the idea of anesthetizing and intubating a dog and dunking it in an aquarium for some time to demonstrate the set-up to others.[6]

The first "dunked dog" experiment (there were only two) was on May 8, 1928, at the Indiana University School of Medicine. The subject was convenient, one of the Guedel family's three dogs, a dog named "Airway." Airway was anesthetized with ethylene and intubated, and a Waters' canister set-up was attached. The dog was placed in an aquarium for an hour. He was then awakened and retrieved from the tank. After being extubated and placed on the floor, he shook himself off and laid down for a nap. Guedel, Waters, two unknown physicians and some medical students were present. The "dunked dog" experiment introduced the CO_2 absorption technique and cuffed endotracheal tubes to a large audience, even though only a few attended the actual demonstration. First, its success was recorded in Guedel and Waters' 1928 paper. Then, two popular books on anesthesia history also mentioned the experiment. (For much more on the "dunked dog" experiment, see reference 6.)

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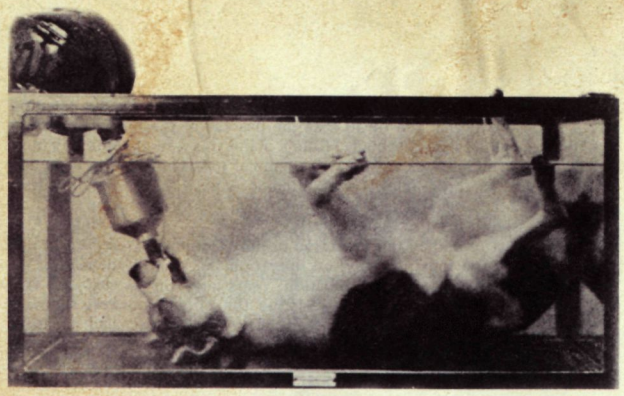

Figure 4: "Airway," the dunked dog. This was Guedel's demonstration of how the trachea was sealed by cuffed tubes.

Source: Guedel Memorial Center, San Francisco.

We have much less information about Guedel's development of the rubber oral airway, introduced in 1933.[7] All previous airways were metal or hard rubber, which could cause oral trauma. Guedel's airway was made of black rubber and so was soft and flexible, yet rigid enough to maintain a patient's airway. A 2 cm metal piece at the oral opening prevented collapse when the jaw might be clenched. A wide rubber flange at the oral end allowed easy retrieval. There is only one mention of this airway in the Waters-Guedel correspondence. On December 6, 1932, Guedel wrote to Waters: "As I use the rubber airway more and more, I am growing to like its action better, and ever as well as or better than the metal airway. I am proud of the idea…"

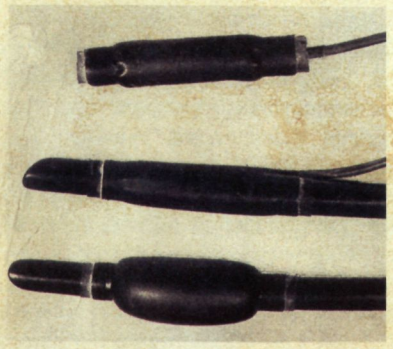

Figure 5: The cuff in 1931, made from a Penrose drain with an 8F soft rubber catheter for the inflation tube.

Source: Guedel AE and Waters RM. Endotracheal anesthesia: New technique. *Ann Otol, Rhino & Laryno.* 1931; 40:1139-1145.

This device was made by Guedel in his garage machine shop. The Forregger Company later produced them commercially. Although the material used has changed, the design persists to the present.

Modern anesthesiologists owe Guedel and Waters an enormous debt. Their questioning minds, their skills of observation, their drive to solve problems and their ability to communicate and to question each other are well documented in the letters between them and helped to lay significant parts of the platform needed for modern anesthesiology to begin.

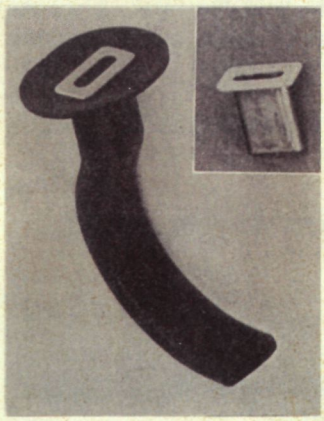

Figure 6: Guedel's rubber oropharyngeal airway, manufactured in his Beverly Hills garage.

Source: Guedel AE. A non-traumatic pharyngeal airway. *JAMA.* 1933; 100:1862.

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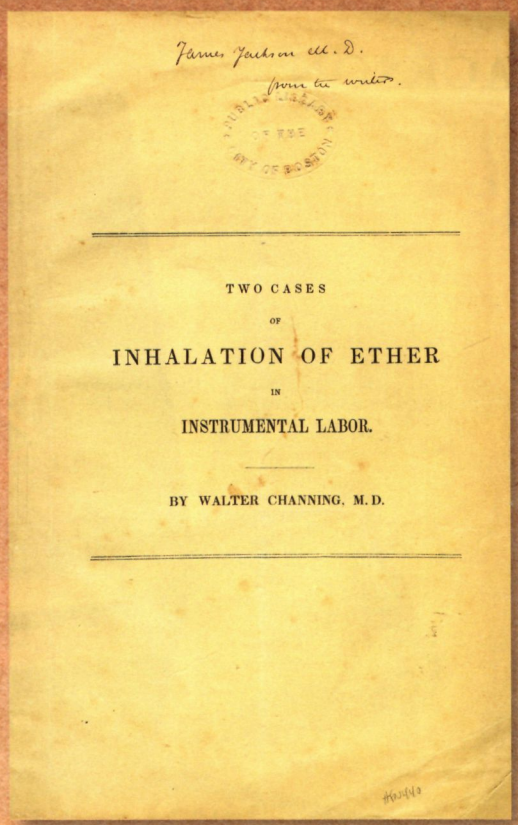
7. Guedel AE. A non-traumatic pharyngeal airway. *JAMA.* 1933; 100:1862.

The Year of the Airway

Continued from page 9

notice (and during the Christie's auction), Dr. Bause flew to Hartford and acquired a number of precious items, including the pastel. The items related to Dr. Wells were, we understand, donated to the University of Connecticut. Similarly, from the Christie's collection, the WLM obtained a first-edition printing of "Two Cases of Inhalation of Ether in Instrumental Labor," by Walter Channing, circa 1847. Dr. Channing was the first to advocate the use of anesthesia in obstetrics and introduced ether into his own practice shortly after Morton's demonstration.[1] At some point in its history, this presentation copy from the author to James Jackson was obtained by, and later de-accessioned by, the Boston Public Library [Figure 4]. It then disappeared from public view until the Christie's auction. These items speak to a common theme. In national venues such as the WLM, such precious holdings can be protected, preserved and made available to all in perpetuity.


James Jackson M.D.
from the author.

TWO CASES
OF
INHALATION OF ETHER
IN
INSTRUMENTAL LABOR.

BY WALTER CHANNING, M.D.

Figure 4: Picture of "Title of Channing" text, just acquired, showing Boston Public Library stamp.

Last but not least, Dr. Bause and I hopefully add a little fun by beginning "What Is This Thing?" (page 31) an item that may occasionally appear in future issues as space permits. We invite submissions from the membership for consideration as a "What Is This Thing." For questions or ideas, please contact Judith Robins **j.robins@asahq.org.** As always, any items must be approved by the *NEWSLETTER* staff and editor prior to publication.

So we hope you enjoy this issue of the *NEWSLETTER* as we celebrate "The Year of the Airway." The Compiler and authors would like to recognize and thank the WLM staff – Librarian Karen Bieterman, Archivist Felicia Reilly, Collections Supervisor Judith Robins and, of course, Patrick Sim – for their dedication and their most able assistance. The staff have spent many hours joyfully supporting the physician-authors and are quite modest about taking credit where credit is due. We could not have produced this edition without them.

In closing, it is with great sadness that we note the passing of Dr. John M.R. ("Jack") Bruner. Dr. Bruner was a pioneer in electrical safety in the operating room, an author of a text on the topic, and one of ASA's first members on the National Fire Protection Safety Association. He was known for his statements – both public and private – that monitors could never replace the vigilance of an anesthesiologist, and for his crew cuts, his bow ties, his sharp wit and sometimes sharper tongue. Dr. Bruner epitomized excellence to the generations of residents he trained at the Massachusetts General Hospital and the Peter Brent Brigham hospitals, and was "the" person most often requested to provide their anesthesia whenever it was necessary. He was a great friend of the WLM, donating both books and a collection of medical equipment. On a personal note, this author recognized that she had come of age as an anesthesiologist when Dr. Bruner said, "Pretty good ... even if you are a girl." He will be sorely missed.

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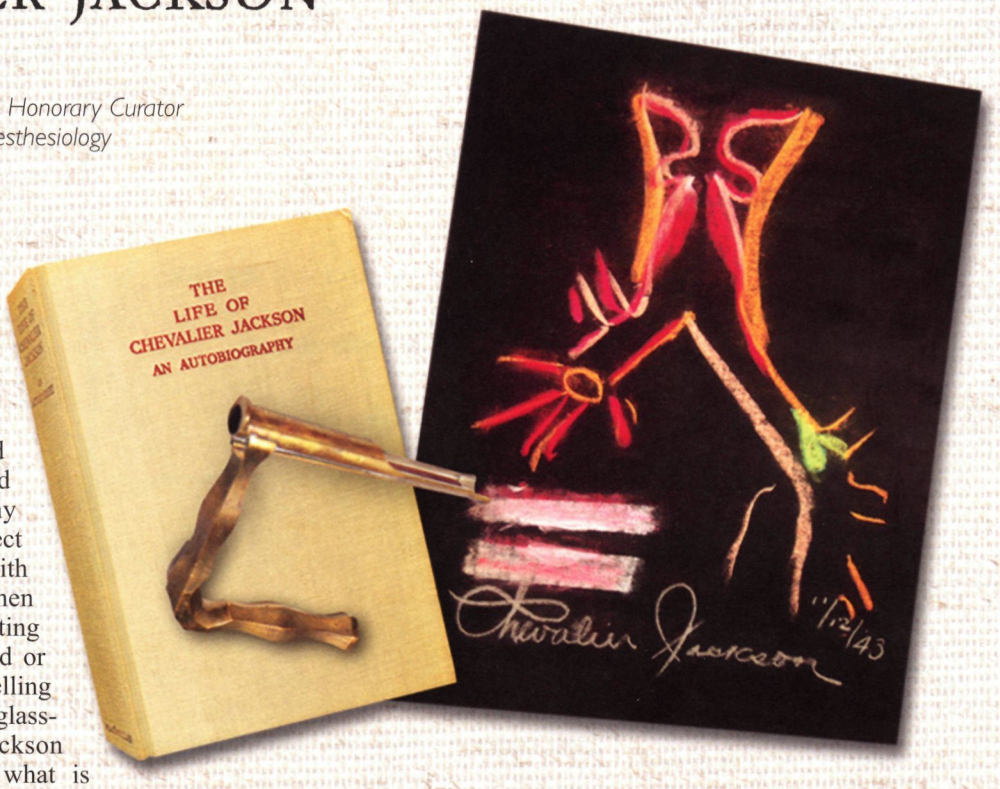
3. Dorfer L, Moser M, Bahr, F, et al. A medical report from the Stone Age? *Lancet.* 1999; 354:1023-1025.

WLM's Nicholas Samponaro, M.D. Collection:

Indirect Gifts From Airway Pioneer Chevalier Jackson

George S. Bause, M.D., M.P.H., Honorary Curator
Wood Library-Museum of Anesthesiology



A frail child, Chevalier Jackson (1865-1958) suffered through the poverty of Reconstruction in the sooty factory town of Pittsburgh, Pennsylvania. Bullied throughout his school years, the boy found solace in his sketchings and watercolors. (Over many years, "Chev" would perfect his ambidexterity, first with artistic renderings and then with medically instrumenting patients' throats for inhaled or swallowed objects.) By selling textbooks and decorating glassware and porcelain, Jackson earned his way through what is now the University of Pittsburgh and then through Philadelphia's Jefferson Medical College. He received his medical degree in 1886.

A grateful patient then funded Dr. Jackson's passage to "the cradle of laryngology" – the London clinic of Sir Morell Mackenzie. In 1887, Chevalier Jackson returned to Pittsburgh. His tonsillectomy practice there soon financed his real interest, the invention and use of peroral devices for inspecting and retrieving pathology or foreign bodies from the esophagus or airways. By 1910, he had invented his U-shaped direct laryngoscope (pictured on page 18 in a later brass version designed for the military) familiar to most anesthesiologists. A Professor of Laryngology at Pittsburgh by 1912, Dr. Jackson pioneered broncho-esophagology and developed international acclaim for his rapid retrieval of coins, safety pins, etc., from the throats and airways of hapless children.

While recuperating in Pittsburgh from successive flare-ups of pulmonary tuberculosis, "Chev" completed his first self-illustrated textbook. Ensuing fame paved Dr. Jackson's way back to Philadelphia to become Professor of

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Laryngology in 1916 at his medical alma mater, Jefferson. By 1930, Dr. Jackson simultaneously held academic posts in "Bronchoscopy & Esophagoscopy" at all five medical schools in Philadelphia. He attempted to resign from some of them, but his resignations were not accepted. By 1938, Dr. Jackson had published his autobiography and retired from clinical practice. Throughout his life, he performed much of his work for charity and attributed his own modest lifestyle to his being "a poor business man…." Enjoying photography and oil painting another 15 years into retirement, Dr. Jackson would live to 93 years of age.

A future disciple of Dr. Jackson's, Nicholas Samponaro (1903-99), was born into similar meager circumstances. The son of Italian immigrants, "Nick" declined his acceptance to Yale for financial reasons in order to pursue his long-term "calling" in medicine. He earned his way through Trinity College, playing his great love, the piano, at silent movies in Hartford, Connecticut. A capable, industrious student, "Nick" completed medical schooling at Johns Hopkins and postgraduate surgical training in Baltimore and New York. Perhaps fingering musical keyboards contributed to Dr. Samponaro's bimanual dexterity. That near-ambidexterity ensured success in the instrument-oriented world of ear, nose and throat surgery.

Unlike Dr. Jackson in Pennsylvania, Dr. Samponaro "added the eye" to his practice of "EENT" in his home state of Connecticut. Frequently without remuneration, "Nick" removed metal shards from the eyes of injured factory workers in Hartford and Torrington. His generosity was also extended to clergymen of all faiths, none of whom were charged for his services. After serving as a wartime naval commander in Quantico, Dr. Samponaro returned to Connecticut in 1946. At Hartford Hospital, the physician-father of actress Katharine Hepburn introduced the young Samponaro, the first Italian-American on the medical staff, to anesthesiologist Ralph Tovell, M.D.

World War II brought "Chev" and "Nick" together. "Chev" left clinical retirement to teach his "Post-Graduate Course in Direct Laryngoscopy and Laryngeal Surgery, Broncho-Esophagology, and Gastroscopy" at Temple University. There, in November of 1943, the ambidextrous Dr. Jackson chalked – simultaneously with right and left hands! – a colorful pastel of the airway (pictured on page 18 and on the cover) and handed it to an eager course registrant. "Nick" treasured both the pastel and a copy of the Jackson auto-biography inscribed to "Dr. Nicholas Samponaro." In 1999, after devoting 60 years to his wife Marie, "Nick" took his final breath as a 90-year-old.

Having sprung from humble beginnings in factory towns, both of these nonagenarian surgeons had used their artistic talents to self-fund their educations, had applied bimanual dexterity to ENT surgery, and then had led industrious, unassuming lives. Devoted family men, both Drs. Jackson and Samponaro were philanthropic in the time and treasure they extended to disadvantaged patients. Their professional legacies as mentor and disciple are reflected in the Nicholas Samponaro, M.D., Collection of the Wood Library-Museum of Anesthesiology.

For their helpful assistance, the author thanks Frank, Philip and Peter, the proud sons of Nicholas Samponaro, M.D.

Personal Reflections: A Boy Meets an Airway Pioneer... the 'Hard' Way

Charles C. Tandy, M.D., Trustee (as told by W. L. Hellman, M.D.)
Wood Library-Museum of Anesthesiology

One day in 1915, in the small town of Muenster, in North Texas, an 8-year-old boy found a new toy. The decorative metal caps from his parent's bedstead also worked as a whistle. So whistle he did – until the metal piece disappeared one day during a paroxysm of coughing. The boy had no further symptoms, so it was assumed that the metal piece had been swallowed, and all was forgotten. The boy was Dr. Hellman's father.

But everything was not "O.K." Some months later, grandmother (his mother) began to notice that the boy was short of breath and often had a fever. The illness was progressive, with a combination of chronic "walking pneumonia" and intermittent acute episodes. He wasn't able to go to school or do his chores, and he failed to pass second grade. Clearly, something was wrong.

The diagnosis of endobronchial aspiration was ultimately made by a new physician in a nearby town, L.W. Kuser, M.D., whose practice was "limited to X-ray and electric treatment." This physician aspired to more filling days by also administering anesthesia. The doctor and the X-ray machine were 15 miles from the boy's home over dirt roads accessible by horse and buggy.

"Numerous" attempts were made locally to remove the metal piece. It was apparently not difficult to feel the metal with forceps during bronchoscopy, but there was no point at which the object could be seized. And, in grandmother's words, "Every time, I thought the anesthetic was going to kill him." At that time, the anesthetic of choice for bronchoscopy was an oil-ether colonic, anesthesia by the colonic absorption of ether and oil. According to grandmother, when he did wake up, the boy would cry and cry about his sore "behind."

Explaining the reach of a Pennsylvania physician's fame to Muenster, Texas, in that day and age is not easy. A local priest suggested to grandmother that a fellow in Pittsburgh was performing miracles in little children with a bronchoscope. This was Chevalier Q. Jackson, M.D. When Dr. Jackson began the practice of endoscopy, the bronchial aspiration of foreign bodies was ultimately fatal (unless coughed up), and the mortality from surgical removal via thoracotomy was 98 percent. Aspiration was often simply overlooked, because of the typical "symptomless interval" following the initiating event.

Figure 1: Photo of the boy who had the foreign body in his right bronchus.

Grandmother sent a personal note to Dr. Chevalier Jackson detailing her son's story and explaining their deteriorating situation, including: "We don't have ... much ... money." Dr. Jackson replied by mail that if she could bring her son to Pittsburgh, she wouldn't need "... much ... money." By return post, her calculated response was: "After the harvest, we will have enough money for two tickets to Pittsburgh." So grandmother and her 9-year-old son departed September 22, 1916, on the Missouri, Kansas and Texas "Katy" Railroad Eastbound, about a three-day train trip. This trip was not an insignificant undertaking. At least one child with a similar problem died on the train en route to Pennsylvania.

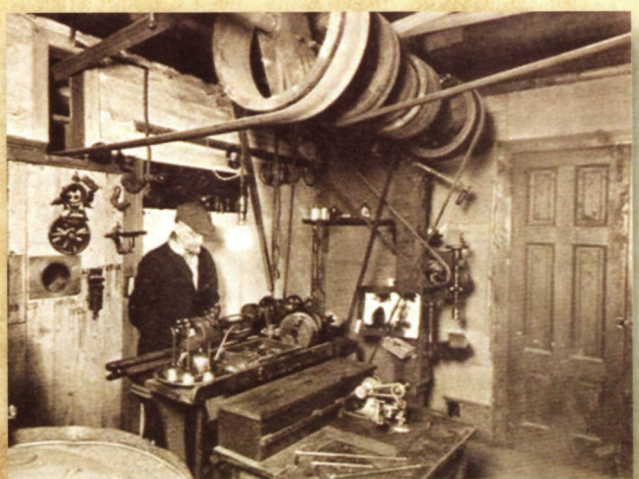

Figure 4: Chevalier Jackson in his shop. "Often I worked in my little shop in the cellar till far into the night...to work out some problem."

Charles C. Tandy, M.D., is an attending anesthesiologist, Methodist Dallas Medical Center, Dallas.

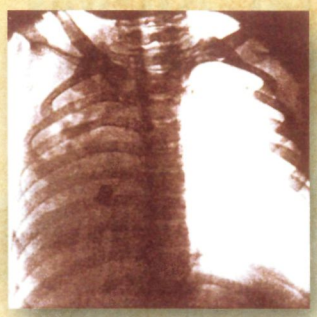

Figure 2: Roentgenogram 15 (Fbdy Case No. 572). Cap off brass bedstead in the right bronchus of boy aged 9 years. Probable sojourn about two years. Note dense pathologic shadow in right chest and compensatory emphysema in left.

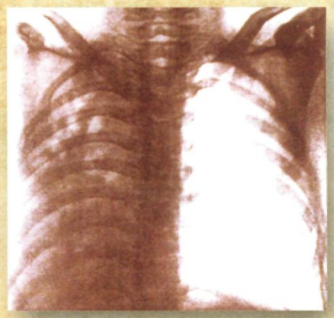

Figure 3: Roentgenogram 16, taken immediately after removal of brass cap in Case No. Fbdy 572. More air seems to be entering all parts of the left chest. Atelectasis and drowned lung are the pathologic conditions on the right side.

Dr. Jackson's first attempt to remove the brass cap from the boy's lung failed. Reassuring grandmother, Dr. Jackson confided he was confident that, with a newly designed "special" forceps which would be created overnight in his workshop, tomorrow he would succeed. The second attempt was a success, lasting 17 minutes, 53 seconds, without general anesthesia. On completion of the procedure, her son was exiting the elevator, sitting on a gurney, and announced, "Mom, they got it!" He was then 9 years, 8 months of age.

Dr. Jackson ultimately removed some 3,600 foreign bodies; 82 percent from children under 15 years of age, and 92 percent for charity or part-charity. None were performed under general anesthesia.

Before departing Philadelphia, grandmother had to ask Dr. Jackson if she could take the offending metal piece back to Texas to show her children, husband and all the solicitous observers of this two-year saga for the now to be triumphant homecoming. His quiet reply was, "No, Mrs. Hellman, this is my fee." Thus continued his collection, which can now be seen at the Mutter Museum in Philadelphia.

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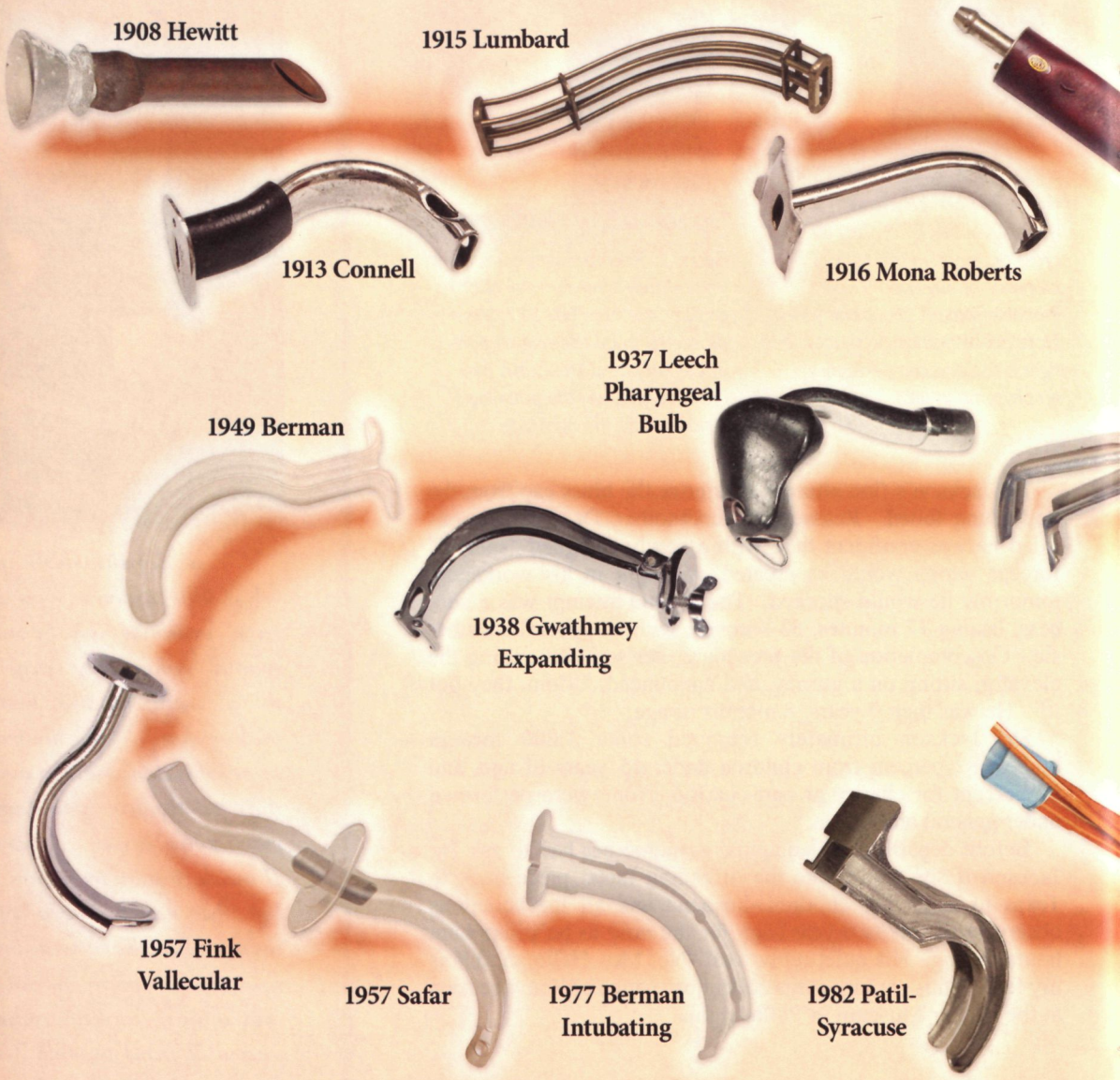
"... a considerable part of what little income was derived from patients who could and would voluntarily pay something went to the instrument maker for ... the instruments, specially designed to overcome the particular problem in a particular case ... Sometimes I made the instruments myself; but the needs were often so urgent that there was only time to make a rough model for the instrument maker, whom for years I paid myself. I could not see children die for want of an instrumental appliance."

The Life of Chevalier Jackson, an Autobiography, 1938, page 97. "Dark Days in Pittsburgh"

A Centennial Salute to Hewitt's Oral "Air-way"

A Pictorial Sampler from the Wood Library - Museum



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During a harrowing anesthetic in 1903, Dr. Frederic Hewitt tugged the beard upward of the portly future King Edward VII to maintain an airway. By 1908 Hewitt would describe in the *Lancet* his "artificial air-way" for preventing such "auto-asphyxiation." Knighthood would follow in 1911.

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Anesthetics in History, From Ingestion to Inhalation:

Recent Significant Acquisitions of the Wood Library-Museum

Lydia A. Conlay, M.D., Ph.D., M.B.A., Vice President
Wood Library-Museum of Anesthesiology

Patrick P. Sim, M.L.S.
Paul M. Wood Distinguished Librarian

Introduction

Medical folklores since antiquity have suggested a myriad of modalities to relieve pain and deaden the senses for the interventional treatment of disease. Efforts to deal with such problems are evident in Asian medical literature as well as in the Greco-Roman era in the 3rd century. Initially, the means to achieve such serious medical-surgical ends involved the application of collective herbal concoctions brewed to specific formulations for oral ingestion.

From an historical perspective, the search for chemical anesthetics to enable surgical intervention and even possibly a cure led to an unparalleled contemporary development in the medical and scientific communities across the globe. For example, Seishu Hanaoka's landmark trial in Japan in 1804 coincided with Sir Humphry Davy's observation of the application of nitrous oxide for surgical operation published in 1800. Less frequently quoted, and from the pre-chemical anesthetic era, was Baron Dominique Larrey's attempt to achieve anesthesia by physical means in 1807. Larrey was a surgeon in Napoleon's army who applied physical force on patients to cause an emotional reaction in attempt to induce a psychological reaction to obviate operational pain, with speed, of course. Similarly, in 1806, Friedrich Sertürner followed this tradition by extracting a white crystal from opium, which would be called morphine [Figure 1]. Likewise, and also within a contemporary timeframe, three scientists on two continents synthesized chloroform using distinctly different chemical processes.

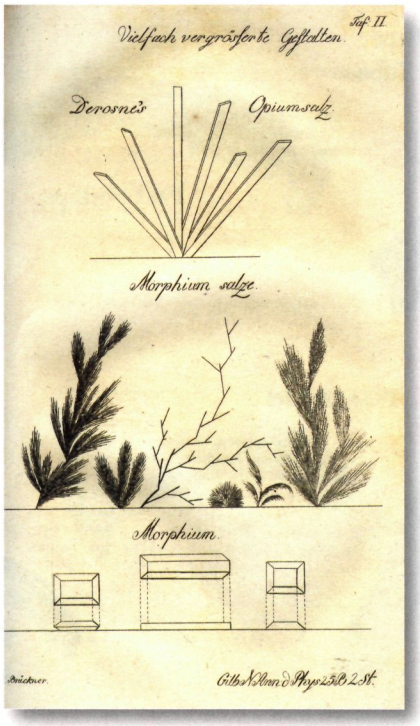

Figure 1: From the SERTÜRNER trio, a "Very Rare" and complete set of papers on the discovery and early characterization of morphine.

On occasion, the historical accounts of anesthesia may be conveniently elaborated by highlighting an existing collection. Indeed, many of the descriptions of the development of anesthetics from antiquity to the era of chemical anesthesia have as their basis information housed in the Wood Library-Museum of Anesthesiology (WLM). For this purpose, our recent rare acquisition from Christie's serves

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as an example for academic research purposes, allowing scholars to develop themes of historical study based upon available primary material. This article briefly describes some of the material from the new acquisition and highlights its relation to other items in the WLM's Rare Book Collection.

Seishu Hanaoka and His Oral Anesthetic

Before the dawn of modern medical science, the ingestion of herbal concoctions to effect surgical insensibility prevailed in Eastern cultures. As described in the September *NEWSLETTER* last year, a Chinese surgeon of the 3rd century, Hua T'uo, was credited for his use of the *mafeisan*, an herbal ensemble made up mostly of Indian hemp, opium and other soporific drugs – such as aconite, datura and hyoscyamus – to cause insensibility for radical surgical operations. Hua T'uo's idea and methods traveled east to Japan with the wind of Chinese cultural migrations starting in the 7th century.

The Japanese surgeon Seishu Hanaoka (1760-1835) introduced another herbal preparation for oral intake in 1804, which reportedly caused the total and complete insensibility to pain caused by mastectomy. Based loosely upon Hua T'uo's formula, Hanaoka developed his *tsusensan* as an oral anesthetic half a century before the discovery of chemical anesthesia in Boston.

Japanese physician and medical historian Tomio Ogata attributed Hanaoka's admiration for Hua T'uo to moving him to develop his anesthetic formula modeled after the latter's *mafeisan*. The formula for Hanaoka's potion, or *tsusensan*, included the popular traditional Japanese drugs of mandarage and souzu, which were primarily the Datura alba and aconite plants, respectively. Datura alba comes from the nightshade family and contains a variety of alkaloids such as scopolamine, hyoscyamine and atropine. The aconite plant is a member of the genus that includes monkshood, with the active ingredient aconitine, a neurotoxin that binds tetrodotoxin-sensitive Na+ channels in the heart and other tissues. The combined ingredients would produce anesthesia, analgesia, hypnosis and tranquility, but they were often lethal. In 1804, with his improved prescription of the *tsusensan*, Hanaoka made anesthesia history.

Titled *Shang Ke Shen Shu (A complete volume of illustrated surgical cases by Seishu Hanaoka)*, this undated manuscript of the Edo era in Japan was recently acquired by the WLM. Stitched bound in traditional Asian bibliographic style, with a title in calligraphy on the top left of a somber green cover, it consists of 50 double-fold leaves, each with a handwritten text and hand-drawn watercolor illustrations of Hanaoka's surgical cases, grouped in subjects of gynecology and obstetrics, internal medicine, orthopedics and pediatrics. Forty-six pages are color drawings, remarkably successful in their depiction of the extirpation

Figure 2: Manuscript by Seishu Hanaoka, titled *Shang Ke Shen Shu (A complete volume of illustrated surgical cases by Seishu Hanaoka).*

of a tumor from a cancerous breast, the amputations of extremities, hydrocele, cancer of the tongue, anal fistulae and of skin grafting. This book includes the illustration of the first successful extirpation of a breast tumor with application of his *tsusensan* as general anesthetic.

Chemical Research and Development of Inhaled Anesthetics

The European Enlightenment no doubt engendered scientific advances unparalleled in history. In the late 18th century, Antoine Laurent Lavoisier initiated the concept of quantitative procedures for chemical research by setting standards for isolating chemically pure forms of biologically active substances. Friedrich Wilhelm Adam Sertürner (1783-1841) followed this tradition in 1806 by extracting a white crystal from the sleep-inducing and pain-relieving drug opium. He observed that the new product he had isolated caused sleep in his experimental dogs,

Figure 3: Friedrich Wilhelm Sertürner (1783-1841), discoverer of morphine.

Continued on page 26

Continued from page 25

and he named his drug morphine, after Morpheus, the Greco-Roman god of sleep. Morphine was the first alkaloid ever isolated, and it opened the field of alkaloid pharmacology as the first drug identified as a narcotic for pain relief. When his initial work failed to be recognized, Sertürner tested this drug on himself and three friends. He found it to be a profound depressant and reported these findings in 1817. Morphine has since been an important drug for anesthesia.

Titled SERTÜRNER trio, a "Very Rare" and complete set of papers on the discovery and early characterization of morphine is included in this rare acquisition.

SERTÜRNER, Friedrich Wilhelm Adam (1783-1841). Darstellung der reinen Mohnsäure) (Opiumsäure) nebst einer chemischen Untersuchung des Opiums mit vorzüglicher Hinsicht auf einen darin neu entdeckten Stoff und die dahin gehörigen Bemerkungen, in:* Journal der Pharmacie, *volume XIV, pp.47-93. Leipzig: S.L. Crusins, 1806.*

SERTÜRNER, F.W.A. Ueber das Morphium, eine neue salzfähige Grundlage, und die Mekonsäure, als Hauptbestandtheile des Opiums, in: Annalen der Physik, Neue Folge, *volume XXV, pp.56-89. Leipzig: J.A. Barth, 1817.*

SERTÜRNER, F.W.A. Ueber das Opium und dessen krystallisirbare Substanz, in: Journal der Pharmacie, *volume XX, pp.99-103. Leipzig F.C.W. Vogel, 1811.*

The turn of the 19th century saw continued scientific study of analytical chemistry, including Sir Humphry Davy's study of gases for pneumatic medicine, and Hanaoka's successful application of his *tsusensan* for surgical anesthesia in 1804. The West continued to define a scientific discipline concerning the study of the effects of chemical agents on living organisms, a necessary discipline for pharmacological research. Through such study and by serendipity, the third inhaled anesthetic agent in history, chloroform, was introduced by Sir James Young Simpson in 1847. The chemical synthesis of chloroform was simultaneously, and independently, accomplished on two transatlantic continents by three independent scientists unaware of each other's work. Published in 1831, the first report of chloroform referred to it as "chloric ether." In 1834 the French experimental chemist Jean-Baptist André Dumas (1800-84) was the first to properly name it "chloroform" and to accurately determine its proper chemical formula.

Chloric ether, also known as the "Dutch Liquid," was discovered by four Dutch chemists in 1796 who had previously discovered ethylene. They continued examining ethylene's effects and observed a rapid, exothermic reaction when ethylene was mixed with an equal quantity of chlorine gas over water. The resultant dense, oily-looking liquid was known as chloric ether, although nothing in its constitution resembled ether.

Samuel Guthrie, Eugène Soubeiran, Justus von Liebig and Chloroform

American physician-chemist Samuel Guthrie apprenticed in medicine with his physician father and attended courses at Columbia College of Physicians and Surgeons as well as at the University of Pennsylvania. A frequent contributor to the *American Journal of Medical Science*, Dr. Guthrie developed a close professional relationship with its editor-founder, Benjamin Silliman. (Silliman had authored a popular textbook of chemistry and been hailed as the founder of chemistry in America.) Guthrie took the editor's suggestion to experiment on the stimulant property of chloric ether by distilling it with alcohol, a departure from the traditional Dutch practice of using water. But Guthrie had no alcohol, so instead he used whiskey. The process was inexpensive, and the resulting product was chloroform, which Guthrie reported in an undated letter to Silliman's journal. Guthrie's preparation yielded an oily substance that sank in water in distinct globules and, if shaken, diffused to form a sweet and aromatic solution. He suggested that it was a stimulant and would serve medicinal purposes.

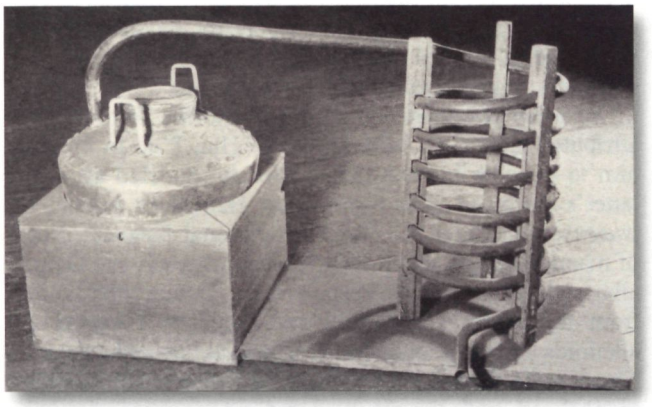


Figure 4: Replica of Samuel Guthrie's still used in his discovery of chloroform. Courtesy of the Jefferson Historical Society, Watertown, New York. Used with permission.

The notion of chloric ether as a stimulant and a pain-relieving agent if taken internally was articulated in Silliman's textbook and published as a letter in Silliman's journal in 1831, 16 years before Sir James Young Simpson discovered its anesthetic property. Perhaps society was not yet ready for chemical anesthesia. But if academic scientist Silliman had treated Guthrie's report more seriously, emphasizing the medical properties of the drug, inhaled anesthesia might well have been born two decades earlier.

This phenomenon was further demonstrated by the simultaneous discovery of chloroform by two chemists, France's Eugène Soubeiran (1793-1858) and Germany's

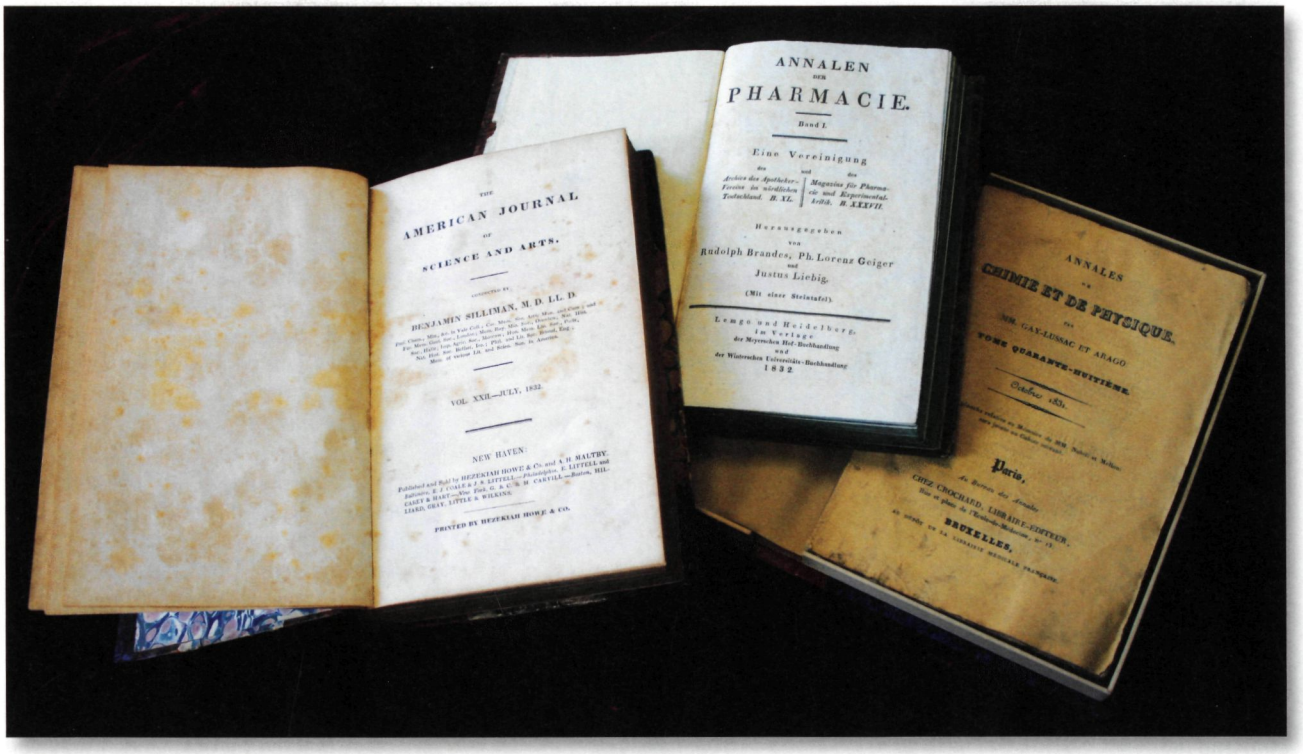
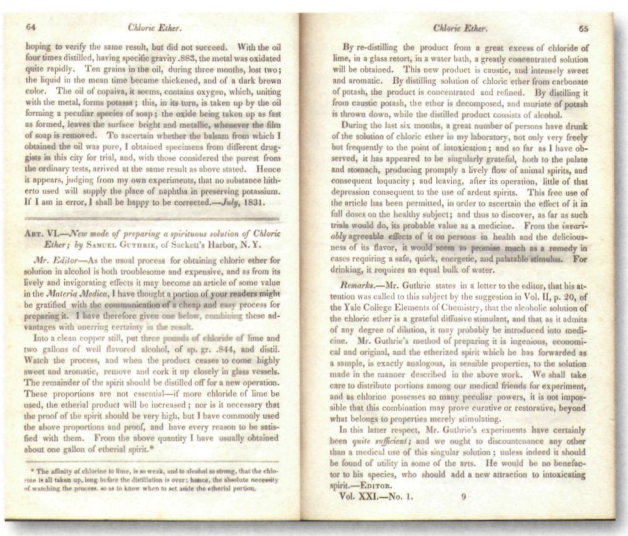


Figure 5: The simultaneous independent discovery of chloroform published in three international journals.

Justus von Liebig (1803-73). In 1831, Soubeiran distilled a mixture of alcohol and chloride of lime to obtain an impure version of chloroform, which he called "bichloric ether." Liebig used the same distilling process and obtained a purer form of chloroform, which he named "liquid chloride of carbon." All three of these chemists invented chloroform around the same timeframe, but, between discovery and publication, each let time slip for different reasons. It is impossible, therefore, to assign precedence to any of them. None focused on the clinical application of his research product.


64 *Chloric Ether.*

hoping to verify the same result, but did not succeed. With the oil four times distilled, having specific gravity .885, the metal was oxidated quite rapidly. Ten grains in the oil, during three months, lost two; the liquid in the mean time became thickened, and of a dark brown color. The oil of copaiva, it seems, contains oxygen, which, uniting with the metal, forms potassa; this, in its turn, is taken up by the oil forming a peculiar species of soap; the oxide being taken up as fast as formed, leaves the surface bright and metallic, whenever the film of soap is removed. To ascertain whether the balsam from which I obtained the oil was pure, I obtained specimens from different druggists in this city for trial, and, with those considered the purest from the ordinary tests, arrived at the same result as above stated. Hence it appears, judging from my own experiments, that no substance hitherto used will supply the place of naphtha in preserving potassium. If I am in error, I shall be happy to be corrected.—*July*, 1831.

ART. VI.—*New mode of preparing a spirituous solution of Chloric Ether; by* SAMUEL GUTHRIE, of Sackett's Harbor, N. Y.

Mr. Editor—As the usual process for obtaining chloric ether for solution in alcohol is both troublesome and expensive, and as from its lively and invigorating effects it may become an article of some value in the *Materia Medica*, I have thought a portion of your readers might be gratified with the communication of a cheap and easy process for preparing it. I have therefore given one below, combining these advantages with unerring certainty in the result.

Into a clean copper still, put three pounds of chloride of lime and two gallons of well flavored alcohol, of sp. gr. .844, and distil. Watch the process, and when the product ceases to come highly sweet and aromatic, remove and cork it up closely in glass vessels. The remainder of the spirit should be distilled off for a new operation. These proportions are not essential—if more chloride of lime be used, the etherial product will be increased; nor is it necessary that the proof of the spirit should be very high, but I have commonly used the above proportions and proof, and have every reason to be satisfied with them. From the above quantity I have usually obtained about one gallon of etherial spirit.*

* The affinity of chlorine to lime, is so weak, and to alcohol so strong, that the chlorine is all taken up, long before the distillation is over; hence, the absolute necessity of watching the process, so as to know when to set aside the etherial portion.

Chloric Ether. 65

By re-distilling the product from a great excess of chloride of lime, in a glass retort, in a water bath, a greatly concentrated solution will be obtained. This new product is caustic, and intensely sweet and aromatic. By distilling solution of chloric ether from carbonate of potash, the product is concentrated and refined. By distilling it from caustic potash, the ether is decomposed, and muriate of potash is thrown down, while the distilled product consists of alcohol.

During the last six months, a great number of persons have drunk of the solution of chloric ether in my laboratory, not only very freely but frequently to the point of intoxication; and so far as I have observed, it has appeared to be singularly grateful, both to the palate and stomach, producing promptly a lively flow of animal spirits, and consequent loquacity; and leaving, after its operation, little of that depression consequent to the use of ardent spirits. This use of the article has been permitted, in order to ascertain the effect of it in full doses on the healthy subject; and thus to discover, as far as such trials would do, its probable value as a medicine. From the *invariably* agreeable effects of it on persons in health and the deliciousness of its flavor, it would seem to promise much as a remedy in cases requiring a safe, quick, energetic, and palatable stimulus. For drinking, it requires an equal bulk of water.

Remarks.—Mr. Guthrie states in a letter to the editor, that his attention was called to this subject by the suggestion in Vol. II, p. 20, of the Yale College Elements of Chemistry, that the alcoholic solution of the chloric ether is a grateful diffusive stimulant, and that as it admits of any degree of dilution, it may probably be introduced into medicine. Mr. Guthrie's method of preparing it is ingenious, economical and original, and the etherized spirit which he has forwarded as a sample, is exactly analogous, in sensible properties, to the solution made in the manner described in the above work. We shall take care to distribute portions among our medical friends for experiment, and as chlorine possesses so many peculiar powers, it is not impossible that this combination may prove curative or restorative, beyond what belongs to properties merely stimulating.

In this latter respect, Mr. Guthrie's experiments have certainly been *quite sufficient*; and we ought to discountenance any other than a medical use of this singular solution; unless indeed it should be found of utility in some of the arts. He would be no benefactor to his species, who should add a new attraction to intoxicating spirit.—EDITOR.

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Figure 6: Samuel Guthrie's discovery of chloroform, published in 1832.

GUTHRIE, Samuel. New Mode of Preparing a Spirituous Solution of Chloric Ether, in: The American Journal of Science and Arts, *volume XXI, January 1832, pp.64-65. New Haven, 1832.*

GUTHRIE, Samuel, On Pure Chloric Ether, in: The American Journal of Science and Arts, *volume XXII, July, 1832, pp.105-06. New Haven: H. Howe, 1832.*

SOUBEIRAN, Eugène. Recherches sur quelques combinaisons du chlore, in: Annales de chymie et de physique, *volume XLVIII, October 1831, pp.113-57. Paris and Brussels, [1832].*

Conclusion

Hanaoka's illustrated surgical cases permit an introductory account of an hitherto inadequately told story of anesthesia before the public introduction of the surgical miracle in Boston. And, with chloroform and morphine, the age of European Enlightenment brought about the discovery of important anesthetic and analgesic drugs. The historical context behind the introduction of these valuable anesthetics highlights the scientific background and nature of

Continued on page 33

Hanaoka

The Great Master of Medicine, and His Book on Rare Diseases

Adolph H. Giesecke, M.D.

Akitomo Matsuki, M.D.

In the United States, students of the history of anesthesia are preoccupied with the deeds, writings and artifacts of Horace Wells, Crawford Long and William Morton in the eternal search for the answer to the question, "Who was first?" This is a proper pursuit because anesthesia is one of the most valued discoveries in all of history. Few inventions have made such a profound difference in the human condition. The grim thought of a surgical procedure in the days when a patient had to be awake, while a surgeon amputated a breast or sawed through bones, is frightful to contemplate. The ability to put an end to this kind of pain is certainly one of the greatest gifts that any man ever gave to his fellow humans. William Morton's public demonstration of the anesthetic effects of ether in 1846 caused him to be ranked as one of the 100 most influential persons in history.

However, another version of the story of the origin of anesthesia can be found across the Pacific Ocean in the Land of the Rising Sun, where Seishu Hanaoka, M.D., used an oral concoction of herbs, which he called "Tsusen-san," to induce general anesthesia for the excision of breast cancer in a 60-year-old woman named Kan Aiya on October 13, 1804. The details of the case were carefully described in a manuscript, which was originally believed to be by the hand of Hanaoka but was probably recorded by his youngest brother Rokujo (1179-1827). This document resides in the Tenri Library, Tenri University, Japan.

Figure 1: Scroll portrait of Seishu Hanaoka, M.D., "The Grand Master of Medicine" (1760-1835) resides in the Wood Library-Museum of Anesthesiology, Park Ridge, Illinois.

Hanaoka was unique in his attitude toward the suffering of his patients, especially those requiring surgery. Surgeons of the time in the West believed that the pain of surgery counteracted shock and improved recovery. The pain of surgery was part of the process, and one had to "take it like a man." By contrast, Hanaoka felt that it was his duty to spare the patients from the pain that other doctors could not relieve. He believed that good sedation was indispensable to reduce suffering, facilitate the operation and minimize danger to the patient. That attitude and his careful research into the pharmacologic properties of plants led to his anesthetic concoction, Tsusen-san, a process of trial and error that required 20 years. According to the

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Akitomo Matsuki, M.D., is Emeritus Professor of Anesthesiology and Intensive Care, University of Hirosaki, Hirosaki, Japan.

legend, he had to try his mixture on a human subject before giving it to a patient. Both his mother and his wife volunteered to be guinea pigs for his experiments. After careful consideration, he decided to anesthetize his wife because, after all, a man has only one mother and she cannot be replaced. Hanaoka was not satisfied with the results of the first trial, and he subsequently used Tsusen-san on his mother, his wife and more than 10 other subjects before he proceeded with the surgical procedure on Kan Aiya, 38 years before Dr. Long in Georgia and 42 years before Dr. Morton in Boston. Hanaoka's wife lost her eyesight as a result of repeated experimental administrations of the anesthesia.

Tsusen-san, the herbal mixture, contained six different plants carefully pulverized and extracted with boiling water. The supernatant was taken orally while still hot. After about two hours, the patient gradually became unconscious and benumbed. This state lasted about five hours, long enough for Hanaoka to perform any kind of operation. The patient was then given the juice of black soy beans for recovery, which took about six hours. Hanaoka's anesthesia was an over-dosage of several alkaloids, including scopolamine, atropine, aconitine and angelicotoxin. When combined, these ingredients induce hypnosis, analgesia, muscle weakness and lack of recall. We would compare it to "very heavy sedation." One of the plants, Datura alba, or White Angel Trumpet, has become the logo of the Japanese Society of Anesthesiologists.

Figure 3: The logo of the Japanese Society of Anesthesiologists features the Datura alba, or White Angel Trumpet (in Japanese, Chosen asagao), a principle ingredient of Tsusen-san, in honor of Hanaoka's contribution to the development of anesthesia. Reprinted with the permission of the Japanese Society of Anesthesiologists.

Dr. Hanaoka treated at least 143 patients with breast cancer; their names are known, and dates of death of 33 patients (23 percent) are known. They survived an average of 2.5 years after the surgery. This work qualifies him to be a pioneer in breast surgery as well as in anesthesia. He has been included as a member of the Hall of Fame of the International College of Surgeons, Chicago.

Dr. Hanaoka and his associates undertook many surgical procedures under anesthesia, including amputation, nasal polyp, cleft palate, cleft lip, cancer of the tongue, cataract, chronic mastitis, breast cancer, tumor of the neck, thromboangiitis obliterans, fistula in ano, prolapsus ani, hemorrhoids, atresia ani, atresia vaginae, stricture urethrae, hydrocele of the testis, and various traumatic wounds and orthopedic fractures. These diseases, the patients and the treatments are written about in several books called "Hanaoka Kikanzu," which translates to "Rare Diseases Treated by Hanaoka." These books were not written and illustrated by Hanaoka himself but rather by his disciples in about 1840, and several copies exist in Japan. Each one is a little different because each was done by hand. The WLM has acquired one of these copies for its rare book collection. The book consists of 52 pages of hand-drawn illustrations with sparse text written in Japanese. Forty-six are in color and the remainders are black and white. The green silk cover is hand-stitched to bind the pages together, and the whole is preserved in a green silk slipcover.

Figure 2: Dr. Hanaoka anesthetized his wife with Tsusen-san before using the mixture on an actual patient. Hanaoka's mother observes. This painting by Harumi Tateishi is owned by the International Museum of Surgical Science, Chicago, and is reprinted with permission.

Hanaoka was extremely busy with his surgical practice, but he took time to teach his disciples at a private

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Figure 4: Hanaoka's skilled hands remove a cancer of the breast from a patient anesthetized with Tsusen-san. Note the finger-knife on the index finger of his right hand. This illustration is from the book recently acquired by the WLM, "Rare Diseases treated by Hanaoka."

academy of medicine, which he founded. In all, he trained about 1,070 doctors in the school. In addition, he did research in antisepsis, was involved in community leadership, wrote poetry and became a skilled calligrapher. He died in 1835 at the age of 75. His innovative practices of medicine, anesthesia and surgery have earned him the title of "Great Master of Medicine." He is buried near his home and the academy of medicine, which he founded. A beautiful new museum in his honor now stands at the site in the village of Nishino-yama of Kinokawa City, Wakayama Prefecture. This is south of Osaka on the southern coast of the island of Honshu.

Conclusion

These facts about the introduction of anesthesia are well known: Crawford Long first gave ether anesthesia in 1842, but did not tell anybody until several years later. Horace Wells is credited with the innovative intellectual courage to push a drug (nitrous oxide) to the point of severe overdosage, which is unconsciousness and anesthesia. His demonstration at Massachusetts General Hospital in 1844 was considered a failure. William Morton made the first public demonstration of ether anesthesia in 1846, and the news of his discovery spread rapidly around the world. All of these facts were researched and established before the Western academic community learned that Hanaoka pushed a combination of drugs called Tsusen-san to a state of anesthesia for a surgical operation in 1804, before Long, Wells or Morton.

So, the answer to the question, "Who was first?" is like a beautiful diamond with many facets. One facet, the contribution of Dr. Seishu Hanaoka to the introduction of anesthesia, is very real and is well documented. The acquisition of one of the early books about his magnificent, history-making practice of medicine, anesthesia and surgery by the WLM will go a long way toward fostering study and research.

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What is this thing

Sometimes referred to as the "Flower Pot Mask," this is one of several pieces of anesthesia equipment donated to the Dennis E. Jackson Collection at the WLM. It was invented by Dr. Jackson, who conducted some of the earliest research in carbon dioxide absorption and trichloroethylene anesthesia from approximately 1910-1930s. Although the mask fits humans, the presence of doggie hairs and a faint but familiar odor suggest that it was used on our canine companions. Dr. Jackson received ASA's Distinguished Service Award in 1963.

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Introducing the ASRA AcutePOP (Acute Postoperative Pain) Registry

Asokumar Buvanendran, M.D.
Committee on Regional Anesthesia

Spencer S. Liu, M.D.

Control of acute postoperative pain is inherently a fundamental human right[1] and has been shown in clinical studies to improve outcomes,[2] prevent development of chronic pain conditions[3] and reduce expenditure of health care resources.[4] Multiple regulatory and advisory organizations such as the World Health Organization, the Joint Commission, and ASA have recognized the importance of controlling acute postoperative analgesia and have issued guidelines. However, surveys completed over the past decade continue to find only modest success in providing adequate acute postoperative analgesia. From 1995 to the present, approximately 30-86 percent of surgical patients continue to report experiencing moderate to severe pain after surgery, despite the availability of effective analgesic modalities such as patient-controlled intravenous and epidural analgesia and peripheral nerve blocks.[5-7] In addition, postoperative pain control is one of the top five reasons for concern with our patients undergoing surgery. One avenue in trying to combat this phenomenon is to attempt to understand what the current practice of postoperative pain measures and then match that with the pathophysiology of acute postoperative pain. In the future, there will be newer classes of pharmacological agents and also better measures to assess postoperative pain.

The American Society of Regional Anesthesia and Pain Medicine (ASRA) has taken the initiative to develop the Acute Postoperative Pain (AcutePOP) data registry. Spencer S. Liu, M.D., is leading this initiative, and to date there are several sites that have IRB approval for the data registry. The objective of the ASRA AcutePOP registry is to develop an open, voluntary database to record practices and outcomes for acute postoperative pain management.

A Web-based program is being developed and will be ready for beta testing in the very near future. An initial meeting of the principal investigators for the AcutePOP registry sites was held during the ASA 2007 Annual Meeting. This initial planning meeting provided an opportunity for the beta test sites to modify the variables and examine the feasibility of the planned mode of data entry. This was followed up by several e-mail communications, and the second meeting was held during the spring 2008 ASRA meeting. The ultimate objective is to have the AcutePOP data registry in use at most hospitals in the United States under the auspices of ASRA. The current investigators involved with this project are Dr. Liu (Hospital for Special Surgery and Weill Cornell Medical Center), Dr. Buvanendran (Rush University Medical Center), Christopher L. Wu, M.D. (Johns Hopkins University), Jane C. Ballantyne, M.D. (Massachusetts General Hospital), James P. Rathmell, M.D. (Massachusetts General Hospital), Richard W. Rosenquist, M.D. (University of Iowa), Eugene R. Viscusi, M.D. (Thomas Jefferson University), Daniel T. Warren, M.D. (Virginia Mason Medical Center), Jacques T. YaDeau, M.D., Ph.D., and Gregory A Liguori, M.D. (Hospital for Special Surgery and Weill Cornell Medical Center).

The ability to improve control of acute postoperative pain is currently hampered by a lack of adequate amounts of data that can be used to determine the effectiveness and risk of different analgesic techniques for different surgical procedures in a variety of settings. Such data would aid in identifying the best practices and could lead to the recognition and adoption of better analgesic techniques. For the same purpose, many surgical organizations have already created patient outcome registries in order to refine surgical practices. Such registries include the American College of Surgeons National Quality Improvement Program and the Society of Thoracic Surgeons National Adult Cardiac Surgery Database and Outcomes

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project. Web sites for these registries list methodology, bibliographies of published research, and describe improvements in outcomes gained from these databases.

The data from the ASRA AcutePOP is intended to help determine best practice, impact of analgesia on pain-related outcomes, and risk/benefit profiles for different techniques for different procedures by analyzing data from large numbers of patients. After initial testing at the above sites, the database will be open for participation by all ASRA members. The database is a standardized local application that can be downloaded at individual sites and is housed at each local institution. Periodically, a limited, de-identified dataset will be uploaded from each participant to the master AcutePOP database. Benefits for each participant include tools to query their own individual databases and real-time benchmarking against the AcutePOP database. Since the ultimate success of AcutePOP depends on member participation, the investigators of the Acute POP database welcome ideas and suggestions to further enhance the usefulness of this initiative.

This is an exciting new project that should benefit both patients and physicians. The AcutePOP investigators will issue periodic updates via a special "AcutePOP Corner" section of the ASRA Web site **www.ASRA.com**. Eventually, we will also preview data from AcutePOP in this section prior to full publication. Participation from members is critical, as it will be the key to success.

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Anesthetics in History, From Ingestion to Inhalation

Continued from page 27

medical anesthesia. They not only enable and enhance the outcomes of surgery, they also relieve pain and contribute to patient safety as demanded by 21st century medicine. Historians may conveniently use such rare and unique acquisitions of original literature to record these epoch-making experiments by the disciplined and pragmatic chemical scientists of the 19th century. The publications described are but a few representative items providing themes for historical research. As a repository and resource center of cultural and scholarly anesthesia, the WLM serves our specialty by collecting important and seminal literature to encourage research and to better understand the nature of this medical specialty.

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2007 Distinguished Service Award
Ronald D. Miller, M.D.

Mark J. Lema, M.D., Ph.D.
Immediate Past President

It was the fall of 1986 in Boston, and I had just become a junior attending anesthesiologist at the Brigham. I went to my Chief, Benjamin Covino, M.D., and asked him if I could invite Ronald D. Miller, M.D., to serve as a visiting professor. He agreed but thought the prospect was remote, owing to the great distance and the hectic schedule of the invitee. Much to our surprise, Ron accepted. He was most engaging, gracious and spent the bulk of his time talking with residents and fellows. I also had my first encounter with the editor of "The Anesthesia Text" for our specialty.

It's now the mid-90s, and I find myself engaged in a game of golf at the Scottsdale Princess with Ron Miller and Michael K. Cahalan, M.D. (who was at University of California-San Francisco at the time). We were board examiners, and somehow these two semi-pros took pity on this 30+ handicapper while I duffed my way through 18 holes. Ron was kind and supportive as he watched me take about 120 strokes. By the way, Ron and Mike both scored in the mid-80s and promptly reported their scores in the clubhouse (I guess to raise their handicaps!).

In December 2000, as the PGA Scientific Program Chair, I invited Ron to serve as the PGA Rovenstine Lecturer (not to be confused with his acceptance to serve as ASA Rovenstine Lecturer this year[1]). Ron talked about the future of our specialty in prophetic ways that stimulated my interest in this topic.

Under the presidency of Eugene P. Sinclair. M.D., in 2004, Ron served as Chair of the Task Force on Future Paradigms for Anesthesia Practice, on which I was a member. He personally interviewed or oversaw the interviews of almost 20 key national leaders in health care and medicine to ascertain what their views might be for anesthesia's continued success… and survival. His report in the *ASA NEWSLETTER*[2] stimulated much debate over if, when and how these changes may occur.

In January 2005, while serving as ASA Vice President, I was invited to participate as visiting professor at UCSF. Despite his very busy schedule, I saw Ron personally meet with each medical student applicant who had been interviewed on that day. He told me that it was only right for him to assess their character, and for them to assess him as their potential chair.

These quick vignettes give some personal insights as to Ron's kind nature, humility and enthusiasm to teach, comfort, investigate and prognosticate – all for the betterment of a specialty that he has loved for almost 40 years.

For me, and for more than 90 percent of our membership, Dr. Ron Miller has always "been there" as a leader and an icon. A scientist, a doctor, an administrator, a national advisor, an examiner, a provocateur and a prophet ... Ron handles all of these roles with dignity, honesty and modesty. His career accomplishments serve as the role model's role model. If we all could accomplish one-third of what he has done for medicine and anesthesia, the results would be incomprehensively astonishing.

Since brevity is the hallmark of an honoree's success, let me state that Dr. Ron Miller is one of the very best that we call "colleague." It is most fitting that we honor him with the 2007 ASA Distinguished Service Award. Congratulations, Ron, and well deserved!

Mark J. Lema, M.D., Ph.D., is ASA Immediate Past President and former editor of the ASA *NEWSLETTER.*

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2008 ASA Award for Excellence in Research
Zeljko J. Bosnjak, Ph.D.

David C. Warltier, M.D., Ph.D.
Scientific Advisory Committee.

Zeljko J. Bosnjak, Ph.D., is the recipient of the 2008 Excellence in Research Award. His career, spanning 30 years, has focused on mechanism of anesthetic action in vascular smooth muscle and myocardium.

Each year, the ASA Award for Excellence in Research is presented to an individual in recognition of meritorious and original research that has led to the advancement of the science and clinical practice of anesthesiology. The 2008 designee is Zeljko J. Bosnjak, Ph.D. His research, conducted over a span of 30 years, has continued to be productive, creative and instructive as to basic cellular mechanisms of anesthetic action.

Zeljko's research is not only important for new discoveries but – because of his use of new approaches, methodologies and techniques – his research raises the bar for investigation in anesthesiology to a higher level.

Zeljko Bosnjak was born in Croatia in 1949. He and his family immigrated to the U.S. in 1970. In 1975, John P. Kampine, M.D., Ph.D., Professor of Anesthesiology and Physiology, convinced him to enter the Physiology Graduate Program at the Medical College of Wisconsin, and Zeljko started graduate school two days after he was married to his lovely wife, Mary. He received his Ph.D. degree in physiology in 1979 and remained on the faculty. He was ultimately promoted to Professor of Anesthesiology and Physiology in 1989, and Vice Chairman of Research in the Department of Anesthesiology in 2003.

Investigations by basic scientists and physician scientists in the laboratory of Dr. Bosnjak are directed toward an understanding of the cellular mechanisms of volatile anesthetics. His more than 240 published papers examine the cardiovascular response to anesthetic drugs, including: 1) impact of anesthetics on cardiac and vascular smooth muscle electrophysiology; 2) cardioprotection by volatile anesthetics; and 3) genetic basis for differences in the cardiovascular response to anesthetics. In a seminal investigation, Zeljko characterized the direct action of volatile anesthetics on ATP dependent potassium channels in sarcolemmal and mitochondrial membranes using patch clamp techniques and inner mitochondrial membranes reconstituted in lipid bilayers, respectively. He was the first to provide direct evidence that administration of isoflurane can increase the open probability of ATP dependent potassium channels in mitochondria.

Zeljko Bosnjak's history of obtaining grant support is impressive. He received his first NIH grant, a New Investigator Award, in 1982 and since that time has had continuous funding from the NIH for 26 years. His present R01 is funded through 2009, and he is the director of a Program Project Grant. The long history of funding is strong evidence that his investigative work is state of the art and leads the field in novel and new directions. His involvement in a variety of study sections and NIH committees, including Clinical Science Study Section II, Pharmacology Study Section II, and Surgery, Anesthesiology and Trauma Study Section, attest to his scientific reputation. Zeljko is an editor of *Anesthesiology* and an ad hoc reviewer for a number of journals such as the *American Journal of Physiology*, *Brain Research*, *British Journal of Anaesthesia*, and *Anesthesia & Analgesia*. Finally, he has been a member of the Scientific Advisory Board of the Association of University Anesthesiologists and the FAER Academy of Research Mentors. His professional service to a wide variety of organizations directly and indirectly advances the scientific basis of our subspecialty.

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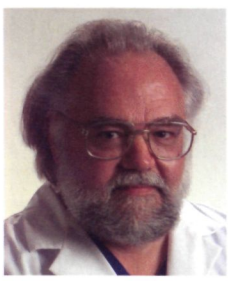

David C. Warltier, M.D., Ph.D., is Professor and Chair, Department of Anesthesiology, Medical College of Wisconsin, Milwaukee. He was the recipient of 2001 Award for Excellence in Research.

2008 ASA Presidential Scholar
John H. Eisenach, M.D.

Bradley J. Narr, M.D.

John H. Eisenach, M.D., is the recipient of the 2008 Presidential Scholar award. His primary area of interest is how genetic variation affects heart function and blood pressure regulation. Dr. Eisenach was raised on a farm in Fort Morgan, Colorado, and received his medical degree at the University of Colorado. He joined the Mayo Clinic Department of Anesthesiology in 2002 and received a mentored, patient-oriented, research career development award from the NIH (K-23 award). This involved studies on healthy people to determine the physiologic consequences of polymorphic variation in the beta-2 adrenergic receptor. By placing these individuals in common groupings based on genotype and examining their heart and blood pressure responses to various stimuli, he found preliminary evidence that beta-2 adrenergic receptor gene variation affects cardiac and vascular function.

In March 2008, Dr. Eisenach received an NIH National Heart, Lung, and Blood Institute R01 award titled "Beta2-Adrenergic Receptor Gene Variation and Cardiovascular Control in Humans." The overall goal of this five-year project is to advance the understanding of human beta-2 adrenergic receptor gene haplotype variation and cardiovascular phenotype. His laboratory will conduct hypothesis-driven protocols to determine the genetic influence of blood pressure regulation in response to stressful maneuvers, medication infusions and dietary sodium intake. This strategy will provide mechanistic detail of how genes interact with intermediate physiological traits pertinent to the development of hypertension and cardiovascular disease with substantive implications for the specialties of anesthesiology and critical care.

Dr. Eisenach's second research interest is clinical autonomic disorders, with an emphasis on hyperhidrosis. In his second year as a staff anesthesiologist, Dr. Eisenach designed a method to measure real-time palmar skin blood flow during thoracoscopic sympathotomy for patients with hyperhidrosis. This changed our surgical practice, because subsequently the department of neurosurgery purchased dedicated equipment for routine use in these procedures. Dr. Eisenach wrote a review article on hyperhidrosis for Mayo Clinic Proceedings, which led to an unexpected (and rather whimsical) surge of interviews from the lay media (i.e., April 2007 issue of *Men's Health*). With patient inquiries from all over the country, Dr. Eisenach has serendipitously become a referral mechanism for our neurologists and surgeons who contribute to the care of these patients. Importantly, Dr. Eisenach capitalized on this opportunity by currently leading a prospective investigation of cardiovascular regulation in patients before and after sympathotomy surgery.

Dr. Eisenach is a respected teacher in the operating room, and his teaching evaluations by trainees have been uniformly outstanding. Within the greater Rochester community, Dr. Eisenach is president-elect of the local chapter of Sigma Xi Scientific Research Society. For the past two years, he has chaired the local Science Fairs Committee, and under his leadership, participation has increased 20 percent each year. To meet the growing demand for space, he orchestrated the GATEway Science Fair (grades 2-6)

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Bradley J. Narr, M.D., is Chair and Associate Professor of Anesthesiology, College of Medicine, Mayo Clinic, Rochester, Minnesota.

Scientific and Educational Exhibits

Andrew D. Rosenberg, M.D., Chair
Committee on Scientific and Educational Exhibits

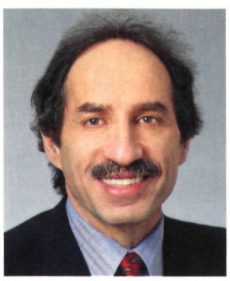
The 2008 Annual Meeting this October in Orlando will feature 39 Scientific and Educational Exhibits as well as poster sessions of the popular new section on medically challenging cases. Some of the exhibits will focus on airway management, pain management, peripheral nerve blocks and education, including the use of computers, handheld devices and simulators. Exhibits concerning the patient with obstructive sleep apnea and the patient being cared for in the office-based setting also are planned. Administrative exhibits will provide information on anesthesia in developing countries, airway management, trauma and care of the geriatric patient, as well as many other topics. The Scientific and Educational Exhibit format provides a forum whereby viewers can spend time interacting with exhibitors and gain in-depth knowledge about the topic being presented. It is an excellent opportunity to exchange ideas, discuss concepts, learn about new ideas and technology, and enhance your skills by practicing the techniques being exhibited. Exhibitors will use charts, posters, diagrams, models and interactive educational tools. Some of the exhibits allow viewers to gain hands-on experience with medical devices and techniques that are relatively new to the field of anesthesiology or are important for the practicing physician to master. Exhibits can be viewed at the Orange County Convention Center on Sunday, October 19, from 12:30 p.m. to 6 p.m., on Monday, October 20, from 9 a.m. to 4 p.m., and on Tuesday, October 21, from 9 a.m. to 3 p.m. On Sunday, there will be an exhibit hall reception from 4:30 p.m. to 6 p.m., during which time both the technical and scientific exhibits will be open for viewing. Exhibits will be evaluated by members of the Committee on Scientific and Educational Exhibits on Sunday afternoon. Awards will be presented for those exhibits that are considered to be superior in terms of originality, clinical relevance, scientific merit and visual impact.

This will be the fourth year that the Annual Meeting has a section devoted to medically challenging cases. This section provides an opportunity for clinicians to present a difficult case that they have handled. The challenging case format provides an excellent forum for a lively discussion and an opportunity for the viewer to suggest how they would have handled the situation. Come by and see the medically challenging cases that will be exhibited next to the Scientific and Educational Exhibits.

"The scientific and educational exhibit format provides a forum whereby viewers can spend time interacting with exhibitors and gain in-depth knowledge about the topic being presented. It is an excellent opportunity to exchange ideas, discuss concepts, learn about new ideas and technology, and enhance your skills by practicing the techniques being exhibited."

I would like to express my gratitude to the members of the Committee on Scientific and Educational Exhibits: James G. Benonis, M.D., Eugene S. Fu, M.D., Michael E. Goldberg, M.D., Julian M. Goldman, M.D., Jung T. Kim, M.D., John B. Leslie, M.D., M.B.A., Michael H. Mendeszoon, M.D., Andranik Ovassapian, M.D., Erin A. Sullivan, M.D., and Santhanam Suresh, M.D.

Andrew D. Rosenberg, M.D., is Chair, Department of Anesthesiology, New York University Hospital for Joint Diseases and Professor of Anesthesiology and Orthopedic Surgery, New York University School of Medicine, New York, New York.



Designing a Flexible Compensation System

Genie G. Blough, M.B.A., F.A.C.M.P.E.

Shena J. Scott, M.B.A., F.A.C.M.P.E.

As a follow-up to the topic of "Creative Scheduling to Retain Staff in a Tight Market" presented at the ASA Conference on Practice Management in 2003, and again as a breakout in 2007, a frequently asked question is *which physician compensation system works best to provide this flexibility?* With more women entering the anesthesiology workforce, different priorities for work/life balance in both genders of the younger generation, and the "workhorse" baby boomers approaching retirement age, groups around the country increasingly face the dilemma of structuring a part-time work program that benefits the group and the individuals. Yet, as recently as 2007, 19 percent of groups reported that it was "too difficult to manage in the schedule," 23 percent reported that it was "too difficult to decide reimbursement," 26 percent reported "group resistance to the idea of some working less" and another 11 percent cited the catch-all "it's just too complicated." The authors believe that part of the reason for this could be that nearly 60 percent of groups (up from 55 percent in 2003) report an equal share compensation system.

While an equal share system presents many advantages for anesthesiology practices — primarily its simplicity and the camaraderie fostered in a system where people share call and case responsibility — it is a difficult platform from which to create opportunities for people to work less (or more). Under an equal share system, the concept of the "job share" (where three physicians share two positions, four share three, etc.) or a simple "salaried non-call position" are really the only options that do not require creating a separate system. Devising a separate system just to accommodate one or two individuals is a difficult and time-consuming endeavor. But what about the physician who is willing to take his/her share of call but simply wants more vacation? Or the one who is willing to take less vacation to work fewer hours during the week? Or the one who wants to do both? Accommodating these types of positions is accomplished much more easily through a blended compensation system that compensates the physicians based upon their actual work.

"Devising a separate system just to accommodate one or two individuals is a difficult and time-consuming endeavor. But what about the physician who is willing to take his/her share of call but simply wants more vacation? Or the one who is willing to take less vacation to work fewer hours during the week?"

There are many different ways to achieve this objective, the extreme (and polar opposite of equal share) being total productivity. Under this system, the physician is paid based on the revenue generated for the cases that s/he performs. Anesthesiologists do not typically fare well under this system, as most facilities require they "take all comers." Since commercial payers typically reimburse significantly better than Medicare, two physicians could perform the same type of case for two different patients and be paid very differently for doing similar work. In addition, "self pay" patients, who

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are potentially "no pays," can often result in a physician not receiving any compensation for his/her services.

In between these two extremes, however, are various compensation systems that neutralize the impact of payer type but still compensate based upon cases or time the physician works. The most common types of these systems are based upon units (base and time, which allows extra reimbursement for complexity of the case), case minutes (which does not differentiate between case type but does encourage anesthesiologists to move cases along because, if they are not "billing minutes," they are not earning for themselves), and time-based (rewards based upon how long the physician is required to be in the hospital regardless of case efficiency or complexity). Most of these systems also include a "base" value paid for being on call in addition to pay for time worked; many also differentiate between time of day and weekend hours. Other popular choices include blended versions of the three types listed above and systems that work one way (e.g., equal share) during "peak hours" and move to some iteration of one of the above "after hours."

What is the best type of system for your group? Like many things, the answer depends upon the make-up of your group, where you practice and what types of cases you perform. Some key considerations include:

1) In what type of setting do you work — care team, physician-only or a blend? If the practice is "physician-only," a unit or case minute system may be easier to implement than if you work in a care team or blended setting. If you work in a care team setting but the medical direction ratios tend to be consistent, a unit or case minute system may be easier to implement than if some cases are done with anesthetists and others are personally performed by physicians. In that scenario, you should implement a "neutralizer" so that the physician medically directing four cases did not earn four times as much "credit" as a physician working a complex case as a solo provider. The group might have to differentiate between the types of responsibilities physicians have to perform to ensure that everyone is comfortable with the valuations. It is also critical that everyone has equal access to perform all types of cases in all types of settings. If the group cannot agree to provide equal access to all cases, a "time-based" system may be the more equitable choice to create more harmony within the group.

2) How many facilities does your group cover? In general, the fewer facilities you cover, the greater your flexibility in selecting a system, especially when the facilities operate at similar intensity levels. If varying intensity levels exist among your facilities, physicians

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Have you been selected to participate in the **Physician Practice Information Survey**?

ASA, the American Medical Association (AMA) and more than 70 other organizations are conducting a comprehensive multispecialty survey of America's physician practices. The results will be used to positively influence national decision-makers to ensure accurate and fair representation for all physicians and patients, and to articulate the challenges of running a practice that provides expert patient care while operating a sustainable business. Of particular importance is the section of the study pertaining to practice expenses and the amounts that are attributable to you. The Centers for Medicare & Medicaid Services has indicated it will use the results of this study to help determine physician payment. The survey firm dmrkynetec will contact randomly selected physicians and practice managers to collect responses. All responses will remain confidential.

Please alert your staff regarding your willingness to participate in this survey and the importance of accepting incoming calls, faxes or e-mails from dmrkynetec. A postcard will be mailed to the entire physician sample in June and is one indication that you have been selected to participate. (To see a copy of the card, please click on www.asahq.org/news/PPI_Survey-pstcrd.pdf.)

As of June 6, only 43 percent of anesthesiologists selected to participate have completed this survey.

If you have been selected to participate in this important effort and have any questions about this survey, please call toll-free at (877) 816-8940 and ask to speak with one of dmrkynetec's executive interviewers about the 2008 Physician Practice Information Survey.

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might view a "time-based" system as highly unfair without a weighting system based on the hours (e.g., one hour medically directing 1:4 at the level 1 trauma center is valued at 1.5 times an hour in MRI or at the two-room GI facility). In that scenario, you might be much better off to have a minutes or unit system as long as you can neutralize for multiple minutes of units earned by medically directing physicians in a blended group.

3) How efficient are the facilities you cover? If the facilities run fairly efficiently with few "gaps" in the schedule, providing the added incentive to move things along could be a positive. If there is much inefficiency outside the physicians' control, however, a time-based system may be more appropriate.

There are many factors to consider in devising a compensation system that meets your needs. It takes a lot of forethought and analysis of the factors mentioned here and of others that are specific to your situation. Changing the physician compensation system is one of the largest undertakings a group will ever do. In addition to the challenges of designing the ideal system are the group dynamics and governance issues. Individual members or factions within the group may resist change. The authors recommend that a group test any new system for a minimum of six months before the conversion in an effort to sort out any potential "bugs" and develop "rules" to ensure fairness. For example, do you treat labor epidurals as placement time, the entire time it is running or with a flat fee? If you are on a case minute system, do you need some "special rules" to accommodate situations where the physician is "up and down" all night but does not actually earn a lot of minutes? Every group is different and should tailor its system to fit its needs. In speaking with groups around the country, the authors universally hear that groups who "make this leap" are generally very happy they have done so. In the process, they have essentially created a perfect vehicle to allow individuals the flexibility to work at the level they desire and alter that level should lifestyle choices change over time.

Once you have created a system based upon the type and amount of hours worked, the transition to part-time work or slow down work has essentially been accomplished. Some additional considerations include defining who constitutes a "full-time shareholder" and whether those who work something less should maintain their shareholder status and/or voting rights. In addition, groups should determine how to allocate benefits and fixed costs when people work differing amounts (see May 2003 "Practice Management" column from for this discussion; March 2003 for associated survey results).

But the hardest part is usually figuring out the money. Groups who have gone through this process and devised a system that meets all of their needs are usually many steps ahead in this process. People can move up or down the income/lifestyle spectrum as their own personal needs dictate. Critics of these systems argue that you trade one set of headaches for another: people fight over money instead of time. While this may indeed be true, at least these systems provide flexibility, something that is becoming increasingly important in the current environment. Three critical elements to help diffuse "fighting over money" with these systems are: 1) having a neutral "gatekeeper" with no personal vested interest overseeing the system (hint: this should not be one of the physicians); 2) there must be a mechanism for ensuring an equal opportunity to a share of the pie for those who want it (hint: scheduling is key here); and 3) the group must willingly adjust the system as loopholes are identified.

"Critics of these systems argue that you trade one set of headaches for another: people fight over money instead of time. While this may indeed be true, at least these systems provide flexibility, something that is becoming increasingly important in the current environment."

Many people object to the idea of these systems because they perceive them as expensive to administer. Even if the group had to hire a separate person to administer the system, the cost would most likely be in the $2,000-3,000 per physician per year range, as only the larger groups would require a full-time position. Obviously, the cost for recruiting and physician turnover is much higher than this one salary. Flexible systems can allow groups to recruit and retain valued physicians who simply want to work less (or more!) and are willing to adjust their incomes accordingly. Most importantly, they can allow all physicians to feel that they have more control over their own destiny, thereby improving job satisfaction, a factor that many consider priceless in today's challenging health care environment.

ASA Represented at NCSL's Legislative Summit

Lisa Percy Albany, J.D., Manager
State Legislative and Regulatory Issues

Legislators from around the country assembled in New Orleans to attend the National Conference of State Legislatures' (NCSL) Legislative Summit. David Broussard, M.D., Lisa Percy Albany and Sarah Byun represented ASA. For the past eight years, ASA has participated at NCSL as an exhibitor. ASA was one of 14 groups to comprise the joint booth "Physicians Advocating for Patients." The exhibit booth also included representatives of the American Medical Association, American Academy of Family Physicians, American College of Surgeons, American Academy of Otolaryngology – Head and Neck Surgery, American Academy of Pediatrics, American College of Cardiology, American College of Obstetricians and Gynecologists, American Society of Plastic Surgeons, American Osteopathic Association, American Academy of Opthalmology, American Academy of Dermatology, American Academy of Orthopaedic Surgeons and the Louisiana State Medical Society.

NCSL's Legislative Summit provides ASA with an opportunity to increase the visibility of anesthesiologists and educate state legislators about anesthesiologists and their achievements in advancing patient safety, as well as other issues facing physicians. Thank you to Dr. Broussard, who generously volunteered his time at the joint booth. The state legislators appreciated the opportunity to speak to Dr. Broussard as well as the other physicians within the joint booth who represented their respective medical specialties. ASA will begin planning for NCSL's 2009 Legislative Summit, which will be held in Philadelphia from July 20-25, 2009.

Lisa Percy with Dr. Broussard at the ASA's booth during the NCSL Legislative Summit.

Lisa Percy Albany, J.D., manages state affairs for ASA in its Washington, D.C. office.

Bylaws: Same Old, Same Old?

Richard M. Flowerdew, M.D.
Committee on Bylaws

Bylaws. What image does that create in the average member's mind, especially one accustomed to making independent decisions, sometimes under duress and in short time frames?

- Dull?
- Boring?
- Old guys discussing minutiae about things that might never happen?
- Cast in stone and never change?
- Are they really relevant in the immediacy of the electronic age?

Are these images your perception of bylaws?
Nothing could be further from the truth.

Bylaws are a living, breathing document. They change or evolve as ASA itself changes or evolves – a Society that started as a small group of nine people in 1905 grew into ASA in 1936 with 484 members, and now has more than 43,000 members. Currently, ASA has a House of Delegates with 650 members and a Board of Directors of 112. There is a Director and Alternate Director for every state component society. Other groups are represented at the Board of Directors and the House of Delegates, including the residents, medical students (one of the original member groups), academia and subspecialty societies. Even the Administrative Council, with 12 members, is larger than the original group. Much of the care that anesthesiologists presently provide wasn't even a twinkle in the eye when the Society was first founded. Scope of practice has expanded to include, among other areas, best practice guidelines and standards, O.R. management, regulatory issues, and active political involvement at state and federal levels.

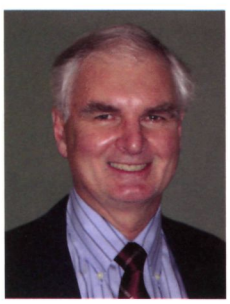
All of these challenges, changes and evolutionary processes required amendments to the bylaws to reflect the Society's response to changing times and changing priorities. Indeed, after every board meeting or annual meeting, the Committee on Bylaws is directed to write the language necessary to implement the changes to the organization that the members have voted upon. Often these changes are relatively minor, such as redefining the responsibilities of a committee, as the Society usually evolves in an incremental manner. Occasionally the changes are much more substantial, such as the change in structure that occurred in 2002 or the revised Committee on Annual Meeting Oversight in 2006. However, all the changes followed due process.

Bylaws perform several very important functions:

- They define the structure of the organization.
- They define the way the organization conducts its business.
- They permit the organization, through its officers and agents, to take action.
- They protect the rights of the members.
- They protect the minority.
- They address unexpected but anticipated problems so orderly solutions can be implemented.

"The Committee on Bylaws is here to help. When members, in particular committee chairs, anticipate that they will need bylaw revisions or amendments, the bylaws committee is ready, willing and able to help them achieve their goals and always appreciates an early 'heads up.'"

Bylaws cannot be considered in isolation. There are several other important documents of governance that help keep the wheels in motion. The most important of these are the Administrative Procedures of the board, which contain many of the important details of how things are actually done or where areas of responsibility lie. Other documents include the Rules of Order for the House of Delegates, and finally the ASA's parliamentary authority, *The Standard Code of Parliamentary Procedure*, 4th edition.



Richard M. Flowerdew, M.D., is an attending anesthesiologist, Spectrum Medical Group, Portland, Maine.

The bylaws define the organization with broad brushstrokes. Changing the bylaws is a complex process and has several procedural steps that are desirable for such a fundamental document. The structure of the organization cannot be changed on a whim. Broad descriptors give the Society the freedom to evolve without being tied down by minutiae as well as encouraging brevity.

The Administrative Procedures are almost the opposite of the bylaws. They are intentionally quite detailed but are more easily revised to keep current. As they are subordinate to the bylaws, they cannot be amended to change the fundamental structure of ASA by clandestine means. However, they are a crucial resource for the officers and members seeking clarification on questions on the "who," "what" and "when" as well as the "how" and "why" of the Society.

The Rules of Order primarily apply to the House of Delegates to facilitate the conduct of the House. The House appreciates efficiency, especially on the Wednesday session when many of the delegates and alternates have to keep an eye on the clock.

So what did the Committee on Bylaws do over the last two years?

- In 2006-07, the Committee on Annual Meeting Oversight was completely revised to recognize the clinical tracks and its related structural changes.
- The Resident Component finally got its own set of bylaws.
- A Medical Student (special) Component was created separate from the Resident Component, but works in tandem with that group.
- The President's Council on Executive Office Oversight was developed.
- A resolution was submitted seeking to clarify the appointment of task forces and how they fit into the organization.
- The Committee on Excellence in Research underwent some significant revisions.
- A Committee on Simulation Education was defined.
- The duties of the Committee on Professional Education Oversight were redefined to be more in tune with current continuing medical education requirements.
- Vacancies for directors were addressed in the absence of rules from the state component.
- The editorial board for the Anesthesia Patient Safety Foundation was defined.

The requests covered a wide range of topics reflecting the diversity of the Society. It should be made quite clear that the work and requested changes came from the committees themselves and the members. The task of the Committee on Bylaws was to write the language, not create the entities.

What is on the agenda for the next couple of years? As the bylaws have evolved, not surprisingly, inconsistencies have developed in format, terminology and layout. When internal conflicts are noted, they are resolved promptly. Other elements may be redundant as the original circumstances no longer apply. The bylaws committee plans to, at least, review the formatting and layout of the document to produce internal consistency. Depending on the outcome of that task, the committee may undertake a full review, as it has been many years since the bylaws have had a rigorous review from top to bottom. We can be certain that there will be plenty of other requests for bylaws action.

Some bylaw committees are very proactive, trying to anticipate all eventualities and permutations. Such organizations may have complex bylaws that may not necessarily be in the best interests of the organization. The ASA Committee on Bylaws is primarily reactive. When directed by the board or the House, we execute their requests. The existing bylaws cover the reasonably foreseeable problems, but occasionally the committee has to deal with unanticipated problems such as the issues that arose in the aftermath of Hurricane Katrina.

On a final note, the Committee on Bylaws is here to help. When members, in particular committee chairs, anticipate that they will need bylaw revisions or amendments, the bylaws committee is ready, willing and able to help them achieve their goals and always appreciates an early "heads up."

Professional Liability Insurance for Anesthesiologists: **Yearly Survey of Premiums**

Karen B. Domino, M.D., M.P.H., Chair
Committee on Professional Liability

With the exception of invasive chronic pain specialists, 2008 has been a year of relative calm and tranquility for liability insurance premiums for anesthesiologists. The ASA Committee on Professional Liability conducted its yearly survey of medical liability insurance companies to assess trends in medical malpractice insurance for anesthesiologists. Forty medical liability insurers throughout the United States participated in the 2008 survey. We collected information concerning policy limits, costs of premiums, moratoriums and comparative costs for specialists in chronic pain management.

Policy Limits and Premiums for Anesthesiologists

Most (76 percent) of the companies had a standard policy limit of $1 million/$3 million, similar to last year. Many companies had a wide range of premiums, with many insured purchasing higher or lower limits than the "most common" policy. A variety of factors go into the choice of policy limits, including employer, hospital or state requirements; location of practice; cost; and personal considerations and asset protection.[1] This year, there was a higher proportion (19 percent) of more than $1 million/$3 million policies (particularly in Eastern and Midwestern states). Lower limits were often purchased in Florida ($0.5 million/$1.5 million or $0.25 million/$0.75 million) and in states with state compensation funds (e.g., Pennsylvania). Thirteen states have implemented patient compensation funds. Participating physicians pay a surcharge to provide additional coverage beyond what is purchased from a medical liability insurance company. Due to escalating medical liability costs, Florida is one of the few states that allows physicians to "go bare" and not carry medical malpractice insurance. Florida physicians can post a bond, establish an escrow account, or obtain an irrevocable letter of credit to cover malpractice awards up to $250,000 and hang a sign in their waiting rooms informing patients they are practicing without malpractice insurance.[2] Due to the high cost of liability insurance and the tendency for awards up to insurance policy limits, many anesthesiologists in south Florida chose the minimum coverage ($0.25 million/$0.75 million).

Average 2008 premiums for mature $1 million/$3 million policy limits for anesthesiologists decreased or stayed the same in most states. The average premium in 2008 was $21,129 (range of $4,500 to $62,203). This value was reduced by nearly 14 percent compared to an average inflation-adjusted premium of $24,566 in 2007. As in the past, there were marked differences in premiums based upon location of practice, state and physician claims history. States with average yearly premiums of $30,000 or more included the District of Columbia, Florida, Illinois, Ohio and West Virginia, all areas of high premiums in the past. Florida continues to distinguish itself as the state with the highest liability premiums.

When we compare premiums this year to those obtained in past Committee of Professional Liability surveys [Figure 1, page 45], a marked reduction is obvious in inflation-adjusted premiums in the 2000s compared to those in 1985.[3] Improvements in the safety of patients undergoing anesthesia have been credited for these savings. The period of volatility of liability insurance premiums between 2003 and 2006 has also faded away [Figure 1]. A variety of factors contributed to the escalation of insurance costs during these years, including consolidation and other changes in the insurance industry, declining investment income, increased defense costs and volatile jury awards. In our 2008 survey, none of the 40 liability insurance companies reported moratoriums, a change from two years ago, when some liability insurers had a moratorium on new business in states with high liability risk.

Karen B. Domino, M.D., M.P.H., is Professor of Anesthesiology, University of Washington School of Medicine, Seattle.

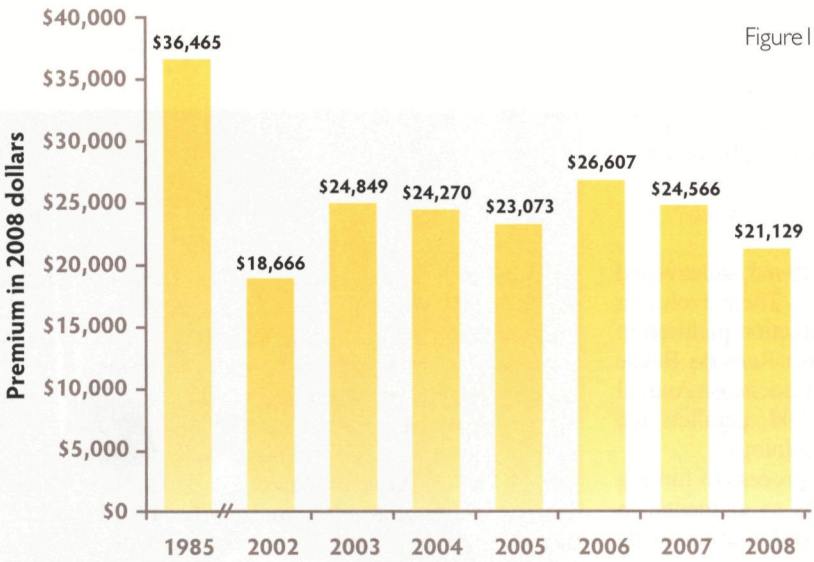


Figure 1: Average premiums for mature $1 million / $3 million policy limits for anesthesiologists. Values are inflation-adjusted for 2008 dollars.

Liability Associated With Chronic Pain Management

Premiums for anesthesiologists specializing in chronic pain management, especially those performing invasive pain procedures, may be higher than for general anesthesiologists. Forty-two percent of the companies reported more costly premiums for anesthesiologists practicing chronic pain management [Figure 2]. Premiums for pain medicine specialists who perform more invasive surgical procedures, such as implantation and removal of pumps and stimulators, may be especially higher than for anesthesiologists (e.g., 120-180 percent more if major procedures are performed). The increased premiums reflect the high liability risk for specialists who are performing invasive procedures. A recent review of closed claims associated with chronic pain management showed an increase in claims associated with cervical epidural blocks or injections and an increase in claims for nerve injury.[4] These data have suggested that chronic pain management may form an area of increased liability for anesthesiologists. Improvements in safety of these invasive procedures may improve the liability profile of anesthesiologists specializing in chronic pain management.

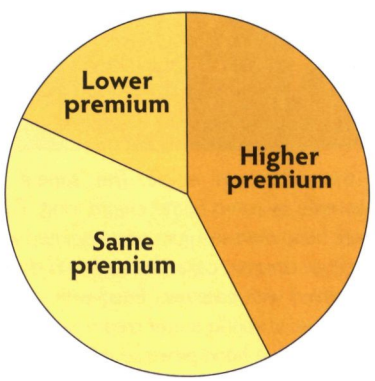


Figure 2: Liability insurance premiums for chronic pain medicine specialists compared to general anesthesiologists.

In summary, 2008 will be remembered as a calm year on the liability scene for most anesthesiologists across the United States. The exceptions include anesthesiologists who practice in the high-liability states (Florida, Illinois, Ohio and West Virginia) and pain management specialists who perform major invasive procedures.

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The Anesthesia History Association: A Piece of Cake!

Doris K. Cope, M.D., Editor
Anesthesia History Association Bulletin

"For me, the cinema is not a slice of life, but a piece of cake."[1]
– Alfred Hitchcock

For us, anesthesiology is a piece of cake. How so?

Cakes began in ancient Egypt as flat, round, unleavened breads that were cooked on a hot stone. Their evolution from a crude staple to the delightful confection pictured in this article, created by the noted cake artist Ramona Bause in celebration of the Anesthesia History Association Annual Meeting in Pittsburgh on May 8-10, 2008, parallels the advances in the art and science of anesthesiology.

The discovery of yeast, beginning the process of turning flat hardtack into fluffy risen cakes, was as elemental in baking as was the discovery of ether and nitrous oxide inhalation in rendering a patient insensible to surgery. With refinement of volatile anesthetics such as cyclopropane and halothane, more complicated and longer surgical procedures could be achieved, just as the addition of whipped eggs (sometimes upward of 30) and butter to cake recipes allowed the achievement of a new and astounding lightness in cakes.

Technology in the 19th century saw enormous advances in the science of anesthesiology as well as in the science of baking with the invention of baking powder in the 1840s, followed quickly by baking soda in the 1860s. Advances in technology were also as important in achieving quality cakes as they were in delivering a safe anesthetic. From the placement of an oven box inside a fireplace, to today's modern ovens, results achieved predictability and reproducibility, as did the delivery of an anesthetic from flow-over vaporizers to the copper kettle and modern anesthesia machines achieve more and more precision in outcome.

Finally, one cannot underestimate the importance of accurate monitoring in both processes. A century ago, the

Doris K. Cope, M.D., is Professor and Vice Chairman of Pain Medicine, Department of Anesthesiology, University of Pittsburgh School of Medicine, and Director, Interprofessional Program on Pain Research, Education and Health Care, University of Pittsburgh Schools of Health Sciences.

Everything on this cake was edible. The sphere was a dark chocolate cake covered by rolled butter cream icing. The mouthpiece and valve port were hand-modeled gum paste painted with luster dust. The books were either caramel cake marbled with dark chocolate or dark chocolate marbled with caramel. Filled with chocolate mousse, the books were first iced in vanilla butter cream and then covered with fondant. The book titles are hand-piped to mimic those of the actual books. Ramona even included an "edible" expiratory flap valve on this cake. Not bad for a pediatric social worker turned cake decorator.

Cake by Ramona Bause, M.S.W., photo by Mark E. Schroeder, M.D.

oven's temperature was gauged by the length of time the baker's hand could tolerate the heat, or the time required for a piece of paper to turn brown, culminating in the use of modern thermostats. Likewise, observations made noting a finger on the pulse, skin color, respiration (or lack thereof) and eye movements were initial measures of depth of anesthesia now superseded by a multiplicity of sophisticated technological monitors including, but not limited to, cardiac echo, end-tidal carbon dioxide measurement, pulse oximetry, etc., etc., etc., etc.

Those interested in the history of our specialty as well as the history of the world and all other things sweet and wholesome are invited to participate in the Anesthesia History Association with an annual dinner meeting at the ASA Annual Meeting on Tuesday, October 21, at 6 p.m. titled "World War Two: The Crucible of 'Modern' Anesthesiology" by David B. Waisel, M.D., and at the annual spring meeting to be held in Augusta, Georgia, April 16-19, 2009. The *Bulletin of Anesthesia History*, a peer-reviewed journal published jointly with the Wood Library-Museum of Anesthesiology, is sent quarterly to members.

Current officers are:
President: Douglas R. Bacon, M.D., M.A.
Past-President: Doris K. Cope, M.D.
Vice-President: William D. Owens, M.D.
Treasurer: David B. Waisel, M.D.
Secretary: Mark G. Mandabach, M.D.
Bulletin Editor: Doris K. Cope, M.D.

The remarkable advances in our specialty in the last century and a half are cause for pride among all anesthesiologists and can be summed up in the words of rapper 50 Cent: "I love you like a fat kid love [sic] cake."[2]

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1. Alfred Hitchcock (1899-1980). Quoted in *Sunday Times*, March 6, 1977. Cited from www.bartleby.com/66/46/28346.html. Accessed on July 29, 2008.
2. 50 Cent, Risto K, Cameron J, Cameron V. "21 Questions" Lyrics. Get Rich Or Die Tryin. Interscope Records, 2003.

2008 ASA Award for Excellence in Research **Zeljko J. Bosnjak, Ph.D.**

Continued from page 35

Zeljko Bosnjak has been an advisor to numerous postdoctoral fellows, graduate students, medical students, residents and faculty. The most important product of Zeljko's investigative work may not necessarily be specific results of studies contributing to the scientific foundation of anesthesiology at this moment. Instead, it may be the impact that his former trainees will continue to have well into the future.

In 1970, Zeljko and his family escaped a communist-controlled country that had literally seized all that they owned. His homeland of Croatia was destined to be ripped by war and genocide. His subsequent successes as a scientist have been enjoyed by colleagues at our institution and also have been shared with those who remained in his beautiful homeland, which his heart has never left behind. His only passion greater than the country of Croatia is his family. Mary and Zeljko have three absolutely wonderful grown children. One of Zeljko's personal and professional objectives has been to enhance the Croatian medical and scientific communities. Over the last 20 years, his participation in the organization and planning of various congresses and symposia in Croatia, establishing an international Ph.D. program and education of Croatian physicians, has been unparalleled. He has been awarded the highest honor from the Croatian government, the Presidential Medal "Northern Star" for this. What is even more remarkable is that he has been awarded this honor twice. The second award was an acknowledgment for his humanitarian services, including organizing relief efforts during the war in the early 1990s consisting of several shiploads with medical supplies and hospital equipment, providing emergency drugs in very short supply (or non-existent) to hospitals in Zagreb at the height of the aggression against Croatia, and finally organizing organ transplants in the U.S. for patients in Croatia, the latter which he continues to do until this very day.

The Award for Excellence in Research recognizes accomplishments in science. The scientific accomplishments of Zeljko J. Bosnjak, Ph.D., in research have had an important impact on the scientific foundation of anesthesiology. In addition, his efforts have enhanced the level of sophistication of medical sciences in another country, Croatia.

SNACC: Basic and Clinical Neurosciences in Perfect Harmony

Sulpicio Soriano, M.D., F.A..A.P., President
Society of Neurosurgical Anesthesia and Critical Care

In an editorial titled "Anesthetic Neurotoxicity: The Collision Between Laboratory Neuroscience and Clinical Medicine,"[1] Michael M. Todd, M.D., gave his assessment of a public discussion at the 31st Annual Meeting of the Society of Neurosurgical Anesthesia and Critical Care (SNACC) regarding the laboratory evidence on anesthetic-induced neurotoxicity and its relevance to anesthesia for the pediatric patient. This discourse between a world-renowned neuroscientist and clinicians in the audience exemplifies the provocative and intellectual nature of our annual meetings. Basic science clashed with clinical observation in a cacophony of debaters, which in turn continues to fuel an active dialogue within the SNACC community.

SOCIETY OF NEUROSURGICAL ANESTHESIA AND CRITICAL CARE

International Scientific Community

Since its founding in 1973 by prominent basic and clinical scientists in neuroscience, neuroanesthesia and neurosurgery, SNACC has emerged as the premier international society in this field. It is this multidisciplinary nature of SNACC that make it unique among the various subspecialty societies. Thirty-six years later, SNACC maintains this tradition of scholarly and provocative annual meetings. This success is largely due to the collective talents of our members. What sets us apart from the other subspecialty societies is our diversity. What other group can boast a membership composed of Ph.D.s, M.D.s, DVMs, anesthesiologists, intensivists, fellows, physiologists, molecular biologists, internists and pediatricians? The breadth of our practice has grown beyond neurosurgery into neuroradiology and neurocritical care in the clinics, and cognition, memory and mechanisms of anesthesia in the basic sciences.

Sulpicio Soriano, M.D., F.A..A.P., is Associate Professor of Anaesthesia, Harvard Medical School, and Senior Associate in Perioperative Anesthesia, Children's Hospital, Boston.

James E. Cottrell, M.D., a SNACC past president, delivered the Emery A. Rovenstine Memorial Lecture at last year's ASA Annual Meeting. He highlighted the broad research accomplishments by neuroanesthesiologists and intensivists and emphasized the significance of research and education in neuroanesthesia, which is at the core of the SNACC mission. Furthermore, no other subspecialty group has the international following that we do. Several of our recent past presidents are from Germany, Italy and the Netherlands. This union provides a rich environment, both at our annual meeting and our Web community, which truly promotes our mission to "advance the art and science of the care of the neurologically impaired patient." This common goal brings us together as an international community and also prompts us to pursue initiatives designed to advance our specialty. Martin Smith, M.D. (United Kingdom) and Kristine R. Engelhard, M.D. (Germany) head the international affairs committee and have engaged our sister societies in Italy (DANTE), India (ISNACC), the U.K. and Asia (ASNACC). Their goal is to promote educational and scientific collaboration between these organizations. This is certainly uncharted water and promises to be a growth area for SNACC.

Neurocritical care is also at the core of our mission and is an area where SNACC vigorously promotes greater inclusion. With this in mind, the SNACC Board formally accepted the United Council for Neurologic Subspecialties (UCNS) invitation for a subspecialty membership. Ansgar Brambrink, M.D., W. Andrew Kofke, M.D., and Michael J. Souter, M.D., have been exploring avenues for accreditation of neuroanesthesia-based neurocritical care fellowship training. Recently, UCNS has established a certification process for neurocritical care. Several of our members met these requirements and received certification for neurocritical care. Given the prolonged nature of fulfilling both the traditional American Board of Anesthesiology critical care and the UCNS neurocritical care certification, our neurocritical care committee is developing recommendations for a hybrid fellowship training program that could satisfy both certifying bodies.

Spreading the Word

Our *Journal of Neurosurgical Anesthesiology* (*JNA*) also serves as the official journal of our sister subspecialty societies in France, Germany, U.K., Korea, Japan, Mexico and India. It just received an Impact Factor of 2.53 for 2007.

Among journals categorized under anesthesiology by the Institute for Scientific Information, *JNA* showed the greatest gain since 2006, and it now ranks sixth out of 22, continuing a trend that began in 2002. Drs. Cottrell (editor) and John D. Hartung (associate editor) deserve our gratitude for enhancing the status of *JNA* and providing a forum for important research emanating from the worldwide neuroanesthesia and critical care community. Furthermore, two prominent past presidents of SNACC and renowned neuroanesthesiologsts Adrian W. Gelb, M.D., and David Warner, M.D., serve on the editorial boards of *Anesthesia & Analgesia* and *Anesthesiology*, respectively.

Our Web site **www.snacc.org** and newsletter, *SNACCNews*, serve as focal points of SNACC programs and resources. Both are edited by Dr. Kofke. The Web site features a "SNACC Blog," by Alex Becker, M.D., which is a Web site problem-based learning discussion on challenging clinical problems in neuroanesthesia and critical care. Other members of the education committee are refining the content outline and bibliography for neuroanesthesia trainees.

36th Annual SNACC Meeting

Gregory J. Crosby, M.D., our Vice-President for Scientific Affairs and Education and Program Director, has assembled a compelling scientific program for our annual meeting at the Rosen Centre Hotel in Orlando on October 17, 2008.[2] In keeping with the broad and diverse interests of the SNACC membership, the program will be highlighting two provocative topics in neurosciences, "Imaging of General Anesthesia-Induced Loss of Consciousness" and "The Aging Brain." The former will be presented by Emery Brown, M.D., an anesthesiologist from Massachusetts General Hospital and a faculty member of both the Harvard Medical School and the Massachusetts Institute of Technology. Dr. Brown is a recipient of a 2007 Pioneer Award from the National Institutes of Health. The clinically relevant issue of the senescent central nervous system will be discussed by Dr. Crosby and Donald S. Prough, M.D., both renowned clinician-scientists in our field. Pekka O. Talke, M.D., and his scientific abstract review committee received more than 120 submissions from our membership. These topic range from molecular biology of CNS injury to evidence-based techniques in neuroanesthesia and critical care. Relevant publications in the field of neuroanesthesia and critical care will be discussed by a panel of editors from *Anesthesia & Analgesia*, *Anesthesiology* and *JNA*. This will be followed by a pro-con debate on the utility of intracranial pressure monitoring in clinical care. Original scientific research has remained an important focus of our SNACC annual meeting. It is through this discourse between clinician and scientist, molecular biologist and engineer, and statistician and behaviorist, that the SNACC community can co-exist in harmony.

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1. Todd MM, Anesthetic neurotoxicity: The collision between laboratory neuroscience and clinical medicine. *Anesthesiology.* 2004; 101:272-273.
2. 36th Annual Meeting of the Society of Neuroanesthesia and Critical Care, available at www.snacc.org/news/36th-Annual-Meeting.htm.

2008 ASA Presidential Scholar John H. Eisenach, M.D.

Continued from page 36

location change to Mayo Clinic property, which made for a smashing success. Also this year, the Rochester Regional Science Fair (grades 7-12) commemorated its 50th anniversary celebration. Dr. Eisenach has a passion for helping these young scientists, recruiting the top Mayo Clinic clinicians, scientists and physician executives to help judge science fairs. He spends his free time with his wife Gina and their three children.

Dr. Eisenach's research has limitless potential to help patients in the operating room, the critical care unit and everyday life. All of this has been achieved within six years of completing residency. Dr. Eisenach has developed into a fantastic model of the young academic anesthesiologist, and he shares his enthusiasm for science with both the residents and the students of the Rochester schools. He is a worthy recipient of the ASA 2008 Presidential Scholar Award.

New Computerized ABA Exam Receives Rave Reviews, and a Few Suggestions ...

Christopher R. Cook, D.O.
President ASA Resident Component

August 4 and 5 marked the long-anticipated reformation of the American Board of Anesthesiology's (ABA's) written examination to a computerized format. As president of the ASA Resident Component, I am being asked by recent graduates across the country to pass on huge compliments to ABA for its tireless effort in creating this exam. From my informal surveying, the reduction in the number of questions to a total of 250 and elimination of the dreaded and bizarre K-type format were also met with warm regard. In addition, Pearson Vue was perceived by many examinees as supplying a fantastic testing environment with a high level of security, including photo identification, finger printing, and photography of examinees as they entered the premises. They also provided an extremely quiet environment, not allowing bags, watches, pagers or cell phones that somehow in the past never were silenced, and without fail, would break concentration during the exam. ABA was also thoughtful in releasing a tutorial prior to exam day, allowing examinees the opportunity to sample the new format in order to both practice pacing oneself for the exam and to also become accustomed to using the navigational function. A similar tutorial was also available on the day of the exam, prior to time being started on the actual test.

At last year's Resident Component House of Delegates, there were definitely some concerns raised about this year's ABA exam. Many residents felt as though they were being treated as guinea pigs, having taken the written ITE for two years prior in the old format and then having to take the real Board exam with all of the changes. Other residents were concerned about the move of the ABA exam from July to August, while the ITE remained in July. Apparently, this will change again in 2009 when the ITE will be offered to all anesthesiology residents in the spring, with CA-3s also taking the ABA written exam in August 2009.

Some suggestions for further improvement offered by examinees included the adoption of a flag/mark function to the question navigator program similar to that of the United States Medical Licensing Examination. In addition, some want the ability to highlight information on the screen using the mouse. Some examinees would even like the program to have the ability to scratch out answer choices as they use the process of elimination to remove distracters. At some Pearson Vue testing centers, there were concerns raised about the lack of clocks and the inability to bring in watches, yet there is always a timer on the computer screen to budget every second. Other examinees felt the 20-minute break was a little too short for them to be refreshed before returning to the examination. One logistical hurdle that compounds the above concern is that some of the Pearson Vue examination centers do not allow outside food or drink on the premises. In addition, examinees were not allowed to review note cards during the break prior to returning to the exam room. The Resident Component will be conducting a survey of examinees in regard to the new format and pass on the comments to ABA. The survey will be available on the ASA Resident Component Web site and distributed through the Resident Component listserve. Overall, this was a job well done by ABA, but in the spirit of continuous improvement, these suggestions, as well as the results of the survey, could be utilized to further improve the examination.

For more information on the ASA Resident Component, please go to the ASA Resident Component Web site **www.asahq.org/asarc.**

For more Information on the new ABA exam format and future changes, please go to the ABA Web site **www.theaba.org**.

To download the examination tutorial that all examinees should try, go to the primary certification page **www.theaba.org/anesthesiology_initial_certification.shtml.**

In addition, the ABA calendar of events for 2008 and 2009 for CA-3s/ABA candidates entering the primary certification process is as follows:

October 15, 2008	2009 application cycle opens
December 15, 2008	2009 application deadline for 2009 Applications
January 15, 2009	Late deadline for 2009 applications
April 20-24, 2009	2009 spring part 2 (oral) examination administered
August 3-4, 2009	2009 part 1 (written) examination administered
October 5-9, 2009	2009 fall part 2 (oral) examination administered

For those of you awaiting results, remember 2008 part 1 (written) examination results will be available online October 4, 2008 and mailed October 11.

Christopher Cook, D.O., is a Regional Anesthesia Fellow, Hospital for Special Surgery.

ABA Announces ... Call for Oral Examiner Nominations

The American Board of Anesthesiology (ABA) is seeking anesthesiologists to assist with its oral examinations. The nomination process is open until October 31, 2008. New oral examiners will be chosen by the Board of Directors in 2009 and 2010 and will serve at their first examinations in either 2010 or 2011. Typically, 5 percent to 10 percent of nominated diplomates are invited to serve as oral examiners. Individuals may nominate themselves or be nominated by another ABA diplomate.

Nominees must satisfy the following two minimum requirements:

1. Certified in anesthesiology by ABA between 2002 and 2005 or recertified in anesthesiology by ABA between 2002 and 2008 or completed the ABA Maintenance of Certification in Anesthesiology Program® (MOCA®) by Dec. 31, 2008.
2. Clinically active in the practice of anesthesiology.

ABA defines clinically active as performing, directing or supervising anesthesia in the operating room or other anesthetizing areas an average of one day per week during 12 consecutive months over the past three years.

Nominees must be prepared to devote one week as an oral examiner every year for 22 consecutive years. They must remain clinically active for their entire tenure as an oral examiner. They must recertify or successfully complete the MOCA program every 10 years. Additionally, they must not participate in activities that constitute conflicts of interest, including practice oral examinations when a fee is charged for such examinations and in courses devoted solely to preparing candidates to secure ABA certification.

ABA conducts oral examinations twice each year, in April and September or October. Examiners typically are invited to one examination every 12 months. They are required to remain at the examination site from Sunday afternoon until the following Friday afternoon. ABA covers the examiner's reasonable travel and hotel expenses and provides a modest service per diem and a travel per diem.

Most examiners derive a strong sense of satisfaction from providing an important service to the profession. They enjoy the camaraderie with other examiners and take advantage of frequent opportunities to network with leaders of the profession. Examiners receive outstanding continuing medical education during each week of examination activity, for which ABA officially acknowledges 25 hours of Category II credit and 25 hours of LL-SA credit toward the MOCA program requirement.

ABA seeks examiners from private practice as well as academic medical centers. It will ask charter referees to comment about how nominees stay current in their practice and how they interact with their surgical and anesthesia colleagues. When new examiners are selected, ABA invites them to examine as soon as eight months after their appointment.

For those who are interested, a letter of nomination and the nominee's postal and e-mail addresses, telephone number and a current curriculum vitae, as well as the name and postal and e-mail addresses of three ABA diplomates who could serve as referees, should be sent by October 31, 2008, to ABA via fax (919) 881-2575 or U.S. mail or overnight delivery:

American Board of
Anesthesiology, Inc.
c/o Oral Examiner Nominations
4101 Lake Boone Trail, Suite 510
Raleigh, NC 27607-7506

35th National In-Training Exam Set for March 7, 2009

The American Board of Anesthesiology-ASA Joint Council on In-Training Examinations encourages all trainees in anesthesiology to participate in the 35th national In-Training Examinations to be given March 7, 2009. **Note that the test date has been moved from July to March.**

The 2008 examination was challenging and stimulating to trainees and rewarding to program directors. The 2009 examination will be identical in format and will include 225 questions. It will begin at 8:30 a.m. and conclude at 12:30 p.m. Keyword feedback will be supplied to examinees and program directors, and scores will be provided to enable the examinees to compare their performances to those of all other residents at the same training level and to track their own growth in knowledge. Each program director will receive from the ABA a summary of the performance of all trainees in that program; including all years a trainee has participated. The fee of $100 per candidate and the roster must be received by ASA by January 2, 2009, or a late fee of $50 will be charged.

Application information related to the In-Training Examination is available to program directors from ABA, 4101 Lake Boone Trail, The Summit, Suite 510, Raleigh, North Carolina, 27607.

Canadian program directors and requalifying candidates will receive their rosters or applications from the ASA office in August. A deadline date for receipt will be **January 2, 2009**, and no applications will be accepted after that deadline. A fee of $100 is required per candidate. Application information is available by contacting the ASA office at (847) 268-9141 or j.jacobson@asahq.org.

ABA Announces ... Recertification and Maintenance of Certification Exam Dates and Qualification Deadlines

Anesthesiology Recertification Program

The American Board of Anesthesiology (ABA) voluntary Anesthesiology Recertification Program ends in 2009. The last recertification examination will be administered in August 2009.

Only ABA diplomats certified before 2000 are eligible for the Recertification Program. They may apply for recertification at the ABA Web site **www.theABA.org**. If your ABA certificate is not time-limited and you think you have a need to recertify, you have to apply for the August 2009 recertification examination by **December 31, 2008.**

The August 2009 examination is the last opportunity for candidates in the voluntary recertification system to satisfy the examination requirement. If they do not complete all of the voluntary recertification requirements by the end of 2009, Maintenance of Certification in Anesthesiology® (MOCA) will be their only recertification option, and ABA will automatically enroll them in the MOCA program. Participation in either program will not jeopardize their diplomate status.

MOCA Program

ABA diplomates certified after 1999 have a time-limited certificate and must complete the 10-year MOCA program to maintain certification. ABA automatically enrolls them in MOCA when they are awarded initial certification. They can view their MOCA progress report by accessing their portal account at the ABA Web site www.theABA.org. The soonest they can qualify for examination is three years before certification expires (i.e., 2009 for diplomats with a certificate that expires in 2012).

Examination Dates

Different forms of the examination are administered annually in January and August, by computer, at test centers in the U.S. and Canada. MOCA and recertification candidates take the same examination in 2009; only MOCA candidates can qualify for examination in 2010. The test dates and deadlines by which diplomats must qualify for examination during testing windows in 2009 and 2010 are:

Test Dates	Qualification Deadlines
January 3-17, 2009	August 31, 2008
August 1-15, 2009	March 31, 2009
January 2-16, 2010	August 31, 2009
August 7-21, 2010	March 31, 2010

11 Candidates Announce for Elected Office

Eleven ASA members have tossed their hats into the ring and announced their candidacies for elected office. These anesthesiologists and the offices they seek are:

President-Elect
Alexander A. Hannenberg, M.D.
First Vice President
Candace E. Keller, M.D., M.P.H.
Mark A. Warner, M.D.
Vice President for Professional Affairs
Robert E. Johnstone, M.D.
Vice President for Scientific Affairs
Charles W. Otto, M.D.
Secretary
Gregory K. Unruh, M.D.
Treasurer
John M. Zerwas, M.D.
Assistant Secretary
Arthur M. Boudreaux, M.D.
Assistant Treasurer
James D. Grant, M.D.
Speaker, House of Delegates
John P. Abenstein, M.D.
Assistant Speaker, House of Delegates
Steven L. Sween, M.D.

The ASA Board of Directors has approved the following regulations for the announcement of candidacies for elected office:

1. On or before August 1, any candidate for ASA office may send to the Executive Office a notice of intent to run for a specific office.
2. The Executive Office shall prepare a list of candidates submitted to be published in the September issue of the *ASA NEWSLETTER* and the Handbook of Delegates.
3. The announcement for candidacy does not constitute a formal nomination to an office, nor is it a prerequisite for being nominated.
4. Nominations shall be made at the Annual Meeting of the House of Delegates for all candidates as prescribed by the ASA Bylaws.

As approved by the Board of Directors in August 2000, a Candidates' Forum will be made available on the ASA Web site at www.asahq.org/candidates.

ANESTHESIOLOGY IN THE NEWS

Doc Gets Press in Odessa

Stuart D. Small, M.D,. was featured in the June 2 *Odessa American* (Odessa, Texas) for his practice of pain management treatment for Odessa-area residents

Baltimore Sun Features China Earthquake Relief Team

The June 6 *Baltimore Sun* featured Thomas E. Grissom, M.D., as part of a team from the Maryland Shock Trauma Center that traveled to China to help treat victims of the May 12 earthquake, which hit the center of the country.

QED-100 Recovery Device Featured

Derek J. Sakata, M.D., and Dwayne R. Westenskow, M.D., were featured in several news outlets during the month of June, including KSL-TV (Salt Lake City) for the development of the QED-100, produced to provide a faster, lower-risk way to bring patients out of anesthesia following surgery.

Dr. Gan Makes Point on Acupuncture

Tong J. Gan, M.D., participated in a June 19 Ivanhoe Broadcast News segment on the use of acupuncture to treat postoperative pain. Dr. Gan explained how acupuncture can help to enhance pain management when used in conjunction with anesthesia.

Doc/Dentist Alliance

A June 19 WSJV-TV (Elkhart, Indiana) segment examined how anesthesiologists are working with dentists to provide sedation to children. Hector Vila, Jr., M.D., appeared in the segment, discussing his work with pediatric patients in dental offices. The segment appeared on several FOX Television station affiliates.

Anesthesiologist Details Life in O.R. Book

The book *Truth, Lies and the O.R.: The Good, the Bad and the Realities,* written by Frederick W. Ernst, M.D., was featured in the June 20 *Columbus Dispatch* (Columbus, Ohio). It reports what he feels are problems happening in operating rooms.

Latest in Vital Sign Monitors

Kenneth Elmassian, D.O., provided comment on the latest in vital sign monitors for a feature article in the June 2008 *Outpatient Surgery Magazine.*

Dental Anesthesia Safety Probed

Andrew Herlich, M.D., provided information on the safety of dental anesthesia for the July 3 *The Quad City Times* and August 1 *Chicago Tribune.* Both newspapers reported on separate instances of dental patient deaths while under anesthesia in dentist offices.

Iowa Anesthesiologist Gets 'Air' Time

The July 16 *Des Moines Register* explored the career of James H. Bartlett, M.D., the current state air surgeon for the Iowa Air National Guard. Dr. Bartlett has worked with medical missions to villages of Central and South America and with critical care transport teams that flew injured soldiers from Iraq to Germany.

Doc Bikes 50 Days for Cancer Research

As he raised funds for cancer research, Richard C. Garbe, M.D., was featured in the July 26 *Northwest Herald* (Crystal Lake, Illinois) for his 50-day bike trek across the United States. The trip began in Astoria, Oregon, and will end along the Atlantic Ocean.

ANESTHESIOLOGY IN THE NEWS

ASA Member Headed to Arctic

The July 25 *Cambridge Chronicle* (Somerville, Massachusetts) announced that Warren M. Zapol, M.D., was appointed to the U.S. Arctic Research Commission. The main duties of the U.S. Arctic Research Commission are to develop and recommend an integrated national Arctic research policy and assist in establishing a national Arctic research program to implement that policy.

Swimmer-Turned-Anesthesiologist Featured on FOX

Jenny B. Thompson, M.D., a former Olympic swimmer who competed in four Olympics and has 12 medals, appeared August 1 on FOX Business to discuss her career switch to become an anesthesiologist.

Dr. Stanley Headed to Utah Hall

The Utah Technology Council announced on August 6 that Theodore H. Stanley, M.D., will be inducted into the UTC Hall of Fame on October 24. The Hall of Fame honors individuals with Utah ties that have made key contributions to information technology and life science industries through new technology, innovation and leadership.

Asia K2 Calamity and Rescue Recalled

Eric F. Meyer, M.D., recalled his experience climbing to the K2 summit on the Pakistan/China border in early August for the August 8 *The Steamboat Pilot & Today* (Colorado). Dr. Meyer climbed 8,100 meters before deciding to not continue to the summit in late and hazardous conditions. Eleven climbers who continued died when a series of ice tower formations collapsed. Dr. Meyer aided in the rescue and treatment of several survivors.

Vets Get Help From Acupuncture

The August 21 *Portland Tribune* (Oregon) featured Diane L. Miller, M.D., regarding her participation in a weekly free acupuncture clinic treating military veterans who have post-traumatic stress disorder. Dr. Miller commented that the acupuncture helps reduce the veterans' stress and anxiety.

ASA Member Given NC's Highest Honor

The News & Observer (Raleigh, North Carolina) announced on August 23 that Paul R. Woodard, M.D., was awarded The Order of the Long Leaf Pine, the highest civilian honor given by the state of North Carolina.

Doc Treats Sox Player for Pain

Mark Rubin, M.D., was included in an August 26 *Chicago Tribune* article for his treatment of White Sox third baseman Joe Crede, who was on the disabled list for back pain. Crede visited Dr. Rubin for an epidural injection.

Caught on Camera

In a September *Pregnancy* article on parents and photography in the delivery room, William R. Camann, M.D., commented on how digital cameras have changed the delivery-room experience. Some women, especially those having C-sections, see their baby for the first time on the camera display.

Pediatrics Will Get Certified One Way or Another

I agree with the view ("Subspecialty Certification in Advanced Pediatric Anesthesiology," May 2008 *NEWSLETTER*) that subspecialist pediatric anesthesiologists will seek (and surely obtain) certification under other boards if they cannot get it under the American Board of Anesthesiology (ABA). Let the past be a guide to the future. Despite anesthesiology being the most logical place to certify physicians in the subspecialty of undersea and hyperbaric medicine (in the past, many of these specialists either came from an anesthesia background or went into anesthesia later in their careers), ultimately, ABA turned them down. The result was that this group sought and obtained the subspecialty certification from two other boards (preventive medicine and emergency medicine) — a lost opportunity for the anesthesia community, in my view.

Robert F. Goad, M.D.
Bainbridge Island, Washington

Pediatric Anesthesiology and Unity of the Specialty

We would like to applaud and amplify the comments made by Randall M. Clark, M.D., F.A.A.P., regarding subspecialty certification in advanced pediatric anesthesiology in the May *NEWSLETTER*.[1] In opposing this initiative, we feel the ASA Board of Directors abrogated its responsibility to patient care and safety in favor of a vague ideal of protecting the specialty and the Society itself. In reality, this will have the opposite effect.

There is little doubt that the availability and involvement of subspecialty-trained anesthesiologists in the care of children increases patient safety. Incidence of cardiac arrest and the success of rescue are well-documented to be positively impacted by the presence of pediatric anesthesiologists.[2] Additionally, the perioperative experience of children and their families is greatly enhanced by the comfort and confidence of subspecialty-trained anesthesiologists. Whether it be the ability to calmly separate a child from his/her parents at the time of surgery, or the utilization of sophisticated regional and neuraxial techniques for postoperative pain management, pediatric anesthesiologists provide substantial benefit in overall patient care. It follows that subspecialty certification is an essential measure of quality of these practitioners and their training programs. The rationale for this is no different than the rationale for general anesthesiology board-certification and medical board licensure examination and certification.

The practical questions raised by Dr. Clark regarding availability of pediatric anesthesiologists to meet demand are valid, but they do not obviate the need for subspecialty training and certification. Our obligation as anesthesiologists is to provide the safest care possible for our patients, and this should also be the interest of ASA. We should not deviate from this standard for logistical reasons, but rather should work toward addressing the issues of supply and demand by increased support for subspecialty training and practice. Quite simply, the American public expects that health care providers be trained and certified in their respective fields of practice. Pediatric anesthesiology is no different in this regard from, for example, pediatric cardiology or surgery. If the ASA/American Board of Anesthesiology is unable to accomplish this, other organizations will certainly step in to fill the void, leading to the "Balkanization" of the specialty so feared by the Board of Directors. We know of at least one major pediatric anesthesiology program that chose to affiliate with a department of pediatrics, rather than anesthesiology. Is this a bellwether for the future?

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References:

1. Clark RM. Subspecialty certification in advanced pediatric anesthesiology. *ASA Newsl.* 2008; 72(5):17-19.
2. Keenan RL, Shapiro JH, Dawson K. Frequency of cardiac arrests in infants: Effect of pediatric anesthesiologists. *J Clin Anes.* 1991; 3:433-437.

The views and opinions expressed in the "Letters to the Editor" are those of the authors and do not necessarily reflect the views of ASA or the NEWSLETTER Editorial Board. Letters submitted for consideration should not exceed 300 words in length. The Editor has the authority to accept or reject any letter submitted for publication. Personal correspondence to the Editor by letter or e-mail must be clearly indicated as "Not for Publication" by the sender. Letters must be signed (although name may be withheld on request) and are subject to editing and abridgment.

Everyone Wins With Pediatric Subspecialty Designation

The issue of pediatric surgery/anesthesia keeps reappearing within my medical center. The leadership wants to be a regional center that offers everything to everyone. The administration has just joined some organization of Children's Hospitals to advance this goal. We currently have a neonatal ICU and employ three neonatologists and technically have a "Pediatric ICU," but have 0-1 pediatric intensivists. The medical center seems to lose them after a year and has never had more than one. My anesthesiology group has no pediatric subspecialists – like almost all of the departments in the healthcare system – so there is no backup for difficult pediatric cases. However, the administration recently recruited a pediatric neurosurgeon (just out of residency) to start our pediatric neurosurgery program. We – as a department – have expressed concern over the advisability of doing pediatric neurosurgery (including trauma) when we have very little pediatric case volume. Currently, all the complicated pediatric cases (surgical and otherwise) are appropriately referred to pediatric-specific tertiary care facilities in the region. The administration thinks that doing one complicated case every few months is a great way to start.

So, I am in favor of the proposal to create a recognized specialty in pediatric anesthesia. My group has gotten nowhere with surgeons or administrators in attempting to explain the difference between a healthy 4-year-old for a hernia and a sick 35-week-old child for some complicated neurosurgical procedure with an inexperienced surgeon.

I do NOT feel that subspecialty designation for pediatric anesthesia would threaten my practice or my income. In fact, it would probably PROTECT me from essentially being forced to do these cases and then exposed to liability from the suboptimal outcomes. There are simply not enough of these types of cases that every community hospital should be doing them. It seems as though "evidence-based medicine" and "outcomes studies" do not apply when administrators look to expand their kingdoms. It is societies such as ASA that have to continue to lead the way on patient safety. It seems like a good idea for me, my group and especially the patients.

Name withheld by request for fear of retribution by the health care system in which the anesthesiologist works.

Reassessing Anesthesiologists' Roles, and the Value of Education

Dr. Bacon's opinion piece in "From the Crow's Nest" (June *NEWSLETTER*) raised some interesting points. As one who has worked on both sides of the ether screen (OB-GYN and anesthesiology), my thoughts might cast some light in the shadows. First, I find it remarkable that there appear to be no hard data on the value to patients of preoperative assessments, either the day before or the day of surgery. If it is indeed important that such assessments be made by the anesthesiologists actually providing the anesthetics, then Dr. Bacon's assertion that it is "virtually impossible" to do so is not convincing. It must be made "possible," if not mandatory. Also, to expect outpatients, especially in urban settings, to make an extra trip to the hospital for a preop assessment by the anesthesiologist seems logistically very complicated and probably truly "impossible."

Also, as a practicing OB-GYN, almost every day I found that I was performing procedures that I had never even heard of, much less done, during my residency. I was still a "young dog" then. It was and is absolutely imperative that we all learn new skills.

Lastly, I am sure that I was occasionally annoyed to have a surgical case delayed/cancelled on an anesthesiologist's recommendation. I also believe (hope?) that when the recommendation was made in the interest of my patient's welfare, I was supportive, even grateful. Shame on me if I wasn't!

J. Bruce Laubach, M.D.
Castle Rock, Colorado

Do We Have Time to Be Perioperative Physicians?

I enjoyed your "From the Crow's Nest" for June 2008. Regarding the vascular surgeon: You know, he's mostly right. I have at various times tried to improve some of these aspects of anesthesiology practice, and have generally failed because of a) lack of interest from my colleagues, b) lack of financial incentives, etc. I agree with you that we should be as qualified as hospitalists to do postop care, but there are still some areas where most currently trained anesthesiologists would be sorely lacking (antibiotics management, wound assessment and management); this is something we need to work on at the residency level. We are moving in that direction, but slowly.

Regarding "old dogs" – I think that one of the problems with American anesthesiology practice (as compared to, say, France, Australia and England, at least) is that the baseline expectations for the clinical workweek are so large that one barely has time to pursue a life outside work whatsoever. Even in an academic setting, last year we were short, and I found myself working 55-80 hours clinically (sometimes even with an academic day during the week). Hence, at age 57, I couldn't predict when I could be home for dinner and had difficulty making a dentist appointment, getting a haircut, or finding a way to get a car in for service (which is largely why I have three cars for two drivers). We typically have no control over O.R. schedules, and we seem to lack the will to take control as long as hospitals and surgeons (or other interventionalists) emphasize that we basically are here to provide O.R. service whenever and wherever. There's very little time for professional development. I took unpaid leave for a month to learn TEE on two occasions (basically became a cardiology fellow). I think that we have a cultural work environment issue that needs to be fixed to improve both professional development and work-life balance. From what I hear, this problem is rampant in private practice as well, but is often by the choice of the anesthesiologists (more money for each doc wins versus more docs with more time off). Kaiser has a baseline workweek expectation of 36 hours; the anesthesiologists I know who work in that system really like this. They often work longer, but not much – and if they do, they get paid extra. Their salaries in Denver exceed mine, and I make over $300,000. One of my English colleagues indicates that in the U.K., the average anesthesiologist works seven "lists" per week, i.e., seven half days. He says they view the other time as being needed for administrative, educational and personal reasons. As a specialty, we need to get a better handle on extramural and professional priorities.

Finally, I'm nitpicking here only because I know that you, like me, value English language skills: The term "diplomate" is used to indicate one who has graduated from something, such as an ABA diplomate. The term "diplomat" is the one you want when referring to one who is skilled in tact or diplomacy. Presumably Richard Selzer (whom you referenced in your column) was referring to the latter meaning.

Glenn P. Gravlee, M.D.
Aurora, Colorado

Caught in the Middle

It was only a few weeks ago that I became aware of a relatively new term that has been created in our already confusing health care system.

A bulletin for ... hiring of physicians and "midlevels" was tossed into my mailbox. Later that day after a busy O.R. schedule, I was introduced to a potential candidate nurse practitioner who was ... applying for the "midlevel position." Not knowing exactly what he meant, I replied "I'm Dr. Sprtel ... one of those anesthesia providers."

Has society and medicine skipped a few classes in rhetoric? Have we lost our full ability to distinguish now between physician assistants, nurse practitioners, nurses and doctors? Why is it so hard to say "nurse practitioner" or "physician assistant"? Will we start calling nurses "low levels"? Or are the doctors the low levels?

Maybe this is just the natural progression of our degenerating system, as our own specialty has felt the brunt of this with magical terms such as "anesthesia people," "MDA" and "ologist."

The battlefield between anesthesiologist and CRNA appears to be getting crowded. Nurses may need to address this "midlevel" issue and do it promptly. To the "midlevels": proceed with caution. You may have started your own campaign with those apparently one level below you. Good luck.

Brett M. Sprtel, M.D.
Grayling, Michigan

Erratum

On page 3 of the August 2008 *NEWSLETTER*, California Rep. Xavier Becerra was misidentified as a Republican. He is a Democrat. ASA is grateful for Rep. Becerra's leadership in the introduction of H.R. 2053, Medicare anesthesiology teaching rule reform legislation. We sincerely regret the error in misidentifying the Congressman's party affiliation.

FAER Offers Full Menu of Events at 2008 Annual Meeting

Nicole Brudos Ferrara
Programs Coordinator

Alan D. Sessler, M.D., President
Foundation for Anesthesia Education and Research

FAER is pleased once again to be providing a range of activities and programs at this year's ASA Annual Meeting in October. Through the support of ASA and other generous donors, FAER is able to offer medical students, residents, physicians, educators and researchers many avenues for exploring the specialty's scientific advances and educational opportunities.

Please visit the FAER booth in the ASA Resource Center and go to **www.faer.org** for more information on the FAER events listed below. See you in Orlando!

FAER/Abbott-Volwiler and Tabern Resident Scholar Program. Supported in part by Abbott Laboratories, this five-day program will offer 60 residents the opportunity to participate in ASA Annual Meeting activities, including workshops, scientific sessions, exhibits and refresher courses as well as the opportunity to attend the Society for Education in Anesthesia and American Society of Critical Care Anesthesiologists annual meetings on Friday, October 17. Resident scholars are encouraged to sample the full range of ASA Annual Meeting activities.

Friday, October 17

Resident Scholar Welcome Reception, 8:30 p.m. to 10 p.m., Florida Ballroom I, Peabody Orlando. This informal welcome reception allows resident scholars an opportunity to meet FAER Board members and other scholars before the ASA meeting sessions.

Saturday, October 18

Resident Scholars Orientation, 7 a.m. to 8:45 a.m., Florida Ballroom III, Peabody Orlando. Speakers and topics are:

- Lee A. Fleisher, M.D., Robert D. Dripps Professor and Chair of Anesthesiology and Critical Care, Professor of Medicine, University of Pennsylvania School of Medicine, Philadelphia: "My Journey From New Haven Back to My Home in Philadelphia: The Role of Mentorship, Perseverance and Luck."
- Simon Gelman, M.D., Ph.D., Leroy D. Vandam/Benjamin G. Covino Distinguished Professor of Anaesthesia, Harvard Medical School, Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's Hospital, Boston: "Can GPS Find the Way to Professorship?"

FAER Luncheon, 12 noon to 2 p.m., Florida Ballroom III, Peabody Orlando. This luncheon is held to express FAER's appreciation for the support of individual and corporate sponsors and to strengthen industry relations with FAER, ASA and subspecialty leadership. This year's panel moderator is David L. Brown, M.D., Chair, Anesthesiology Institute, Cleveland Clinic. The topic is "Imaging in Pain Medicine: Is FAER Focused?" Panelists and subtopics are:

- Timothy J. Brennan, M.D., Ph.D., Professor and Vice Chair of Research, Department of Anesthesia, University of Iowa, Iowa City: "Molecular Imaging – Incisional Pain."

Nicole Brudos Ferrara is Programs Coordinator, Foundation for Anesthesia Education and Research, Rochester, Minnesota.

Alan D. Sessler, M.D., is President, Foundation for Anesthesia Education and Research, Rochester, Minnesota.

- Allen W. Burton, M.D., Professor of Anesthesiology and Pain Medicine, the University of Texas MD Anderson Cancer Center, Houston: "Interventional Pain – Imaging."
- Sean C. Mackey, M.D., Ph.D., Chief, Division of Pain Management, Associate Professor, Anesthesiology, Stanford University, Palo Alto, California: "Chronic Pain – Imaging."
- Pamela P. Palmer, M.D., Ph.D., Professor, Department of Anesthesia, University of California, San Francisco: "Molecular Pain – Image of Entrepreneur Spirit."
- Brian D. Sites, M.D., Assistant Professor of Anesthesiology, Director of Regional and Orthopedic Anesthesia, Dartmouth-Hitchcock Medical Center, Lebanon, New Hampshire: "Regional Ultrasound – Imaging."

Sunday, October 19

The FAER Booth opens at 12:30 p.m. in the ASA Resource Center. Booth hours are:

- Sunday, October 19, 12:30 p.m. to 6 p.m.
- Monday, October 20, 9 a.m. to 4 p.m.
- Tuesday, October 21, 9 a.m. to 3 p.m.

Booth visitors will have the opportunity to talk to current and former grant recipients, FAER Board directors and FAER staff. Please stop by to learn more about FAER's programs and grants.

Monday, October 20

FAER Academy of Research Mentors in Anesthesiology Workshop, 8 a.m. to 10 a.m., Room W415BC, Orange County Convention Center. Titled "Being a Successful Mentor," this workshop is part of the efforts of the Academy of Research Mentors in Anesthesiology to improve research mentoring in the specialty. The workshop will feature short talks followed by panel discussions on how to attract talented students, residents and junior faculty to mentored research training and how to maximize their chances of becoming successful, independent investigators. The workshop will be moderated by Alex S. Evers, M.D., Henry E. Mallinckrodt Professor and Chair, Department of Anesthesiology, Washington University, St. Louis. Panelists and topics are:

- Zeljko J. Bosnjak, Ph.D., Professor and Vice Chair for Research, Medical College of Wisconsin, Milwaukee: "Successful Approaches to Mentoring."
- Paul R. Knight III, M.D., Ph.D., Professor of Anesthesiology and Microbiology, Vice Chair for Research (Anesthesiology), Director, Medical Scientist Training Program, University at Buffalo, State University of New York, Western New York Veteran's Administration Medical Center, Buffalo: "Attracting Talented Students, Residents and Junior Faculty for Research Training."

Celebration of Research Lunch, 12:30 p.m. to 2 p.m., Room W415BC, Orange County Convention Center. The journal *Anesthesiology* and FAER will co-host the Celebration of Research, providing lunch and educational programs. This year's moderator will be James C. Eisenach, M.D., editor-in-chief of *Anesthesiology*. Featured speakers are:

- 2008 recipient of the ASA Award for Excellence in Research, Zeljko J. Bosnjak, Ph.D.
- Recipient of the 2008 Presidential Scholar Award, John H. Eisenach, M.D., Assistant Professor of Anesthesiology, Mayo Clinic, Rochester, Minnesota.

The recipients of the 2008 Residents' Research Awards will also be introduced during this event.

Eighth Annual FAER Honorary Research Lecture, 2 p.m. to 3 p.m., Room W415BC, Orange County Convention Center. Steven L. Shafer, M.D., Professor of Anesthesiology, Columbia University, New York, will present a lecture titled "Critical Thinking," which will explore a framework for evaluating evidence and illustrate the traps and consequences of noncritical thinking within that framework.

FAER Panel, 3 p.m. to 5 p.m., Room W415BC, Orange County Convention Center. "Anesthesia and the Elderly Brain: What the Anesthesiologist Needs to Know" will be this year's panel topic. Participants will discuss the importance of geriatric anesthesia with the trend for more elderly patients, normal aging of the brain, postoperative delirium and cognitive dysfunction. This session will be moderated by Arnold J. Berry, M.D., M.P.H., Professor of Anesthesiology, Emory University School of Medicine, Atlanta. Panelists and topics are:

- Jeffrey H. Silverstein, M.D., Vice-Chair for Research, Department of Anesthesiology, Mount Sinai School of Medicine, New York: "The Graying of the Surgical Patient: Trends You Need to Understand."
- Christopher J. Jankowski, M.D., Assistant Professor of Anesthesiology, Mayo Clinic, Rochester, Minnesota: "Why Can't I Remember Where I Put My Car Keys? What Happens to the Older Brain?"
- Frederick E. Sieber, M.D., Director, Department of Anesthesiology, Johns Hopkins Bayview Medical Center, Associate Professor, Johns Hopkins Medical Institutions, Baltimore: "Postoperative Delirium in the Elderly: Does Anesthesia Care Play a Role?"

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- Deborah Culley, M.D., Assistant Professor of Anesthesiology, Brigham and Women's Hospital, Harvard Medical School, Boston: "Postoperative Cognitive Dysfunction: Is It the Surgery or the Anesthesia?"

Tuesday, October 21

***Anesthesiology*/FAER Session, 1 p.m. to 3 p.m., Room W23OA, Orange County Convention Center.** The first annual session presented by the journal *Anesthesiology* and FAER highlights research developed by FAER grant awardees. Titled "Anesthesia and the Developing Brain: Implications for Obstetrics and Pediatrics," the session will focus on clinical and laboratory studies of the effects of anesthetics administered during neonatal life and young childhood on brain development and cognitive function. Session moderators and topics are:

- Vesna Jevtovic-Todorovic, M.D., Ph.D., Harold Carron Professor of Anesthesiology and Neuroscience, University of Virginia Health System, Charlottesville: "General Anesthetics – Neurotoxins for the Developing Brain."
- Lena S. Sun, M.D., Professor of Anesthesiology and Pediatrics, Vice Chairman, Columbia University, New York: "Clinical Studies of Anesthetic Neurotoxicity: Past, Present and Future."
- Piyush M. Patel, M.D., Professor of Anesthesiology, University of California, San Diego: "tPA Reduces Isoflurane-Induced Neuronal Apoptosis and Dendritic Spines Loss in Rat Neonatal Neurons."

Medical Student Anesthesia Research Fellowship Symposium, 3 p.m. to 6 p.m., Lecture Hall 414 A/B, Orange County Convention Center. As part of the FAER Medical Student Anesthesia Research Fellowship (MSARF), FAER offers students the opportunity to make a research presentation during the ASA Annual Meeting at the FAER MSARF Symposium. The 2008 symposium will be moderated by Donn M. Dennis, M.D., F.A.H.A., the Joachim S. Gravenstein, M.D., Professor of Anesthesiology and Director of Nanomedicine at the University of Florida College of Medicine, and Vice President of Pharmacology at ARYx Therapeutics, Inc., Fremont, California. In addition to presentations by selected students, poster presentations will be displayed for viewing, and students will be available for discussion.

FAER/Abbott Resident Scholar Farewell Reception and FAER Medical Student Research Fellowship Reception, 6:30 p.m. to 8:30 p.m., Peabody Orlando, Florida Ballroom I. This informal reception offers resident scholars, medical students, their mentors and FAER Board members a final opportunity to meet before the close of the ASA Annual Meeting.

To Tell the Truth

Continued from page 4

The truth is that anesthesiology is the practice of medicine. As anesthesiologists, we must remain firmly united and committed to the preservation and advancement of our chosen profession. We must both collectively and individually be more vocal about the truth of who we are, what we do, and how we got here. If our patients don't know the truth, they will face the consequences. If our legislators don't accept the truth, they should be forced to face the consequences. If we don't champion the truth, who will? So the question now before us is "Will the real anesthesiologists please stand up?"

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Academic - Steven J. Barker, Ph.D., M.D.
Kevin K. Tremper, M.D., Ph.D.

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