



AUA

Association of University Anesthesiologists

Update

Spring 2004

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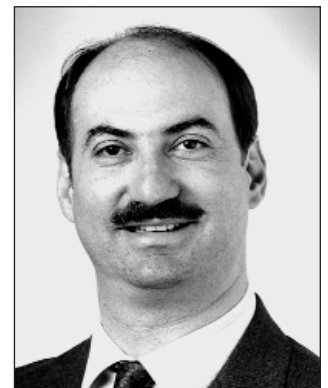
Patient Safety in Academic Anesthesiology: Time for Leadership

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Anesthesiology is acclaimed as the specialty that first recognized and addressed medical errors and the adverse effects they have on the well-being of patients.¹ Indeed the term “patient safety” was coined when the American Society of Anesthesiologists (ASA) Committee on Patient Safety and Risk Management was created two decades ago by Ellison C. Pierce, Jr., M.D., during his year as ASA President in 1984. Many actions have contributed to what is perceived as a generally improving state of safety in anesthesiology.² Our perception, and it is shared by many anesthesiologists, is that anesthesia is not as safe as is generally perceived. Certainly the motto of the Anesthesia Patient Safety Foundation, “to ensure that no patient is harmed by anesthesia,” has not been met.

What is the role of academic departments in bringing anesthesiology closer to this goal? Should it not be the explicit mission of academic departments to prevent harm

and foster patient safety not only in their own institutions but for health care as a whole? Should we not instill in our residents both pride in our accomplishments to date and a sense of the unfulfilled safety mission of anesthesiology? How can we do this in the face of the rising pressures for cost and productivity? We suggest that safety and productivity are synergistic. We pose some questions that beg for debate and explicit answers.

Safety of education and training: All medical specialties face the challenge of turning novices into skilled practitioners, a process that is inherently risky. How do educators in anesthesiology balance the risk and the need to minimize potential for harm with the need of trainees to gain

* Not all agree that anesthesia is safer, but we will leave that to the reader to judge based on reading of pro and con arguments.^{3,4}

Patient Safety in Academic Anesthesiology: Time for Leadership

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experience before practicing independently? Should not this topic be discussed explicitly within academic departments? Is the current method of teaching really optimal? What are the limits of our current primarily apprenticeship model?

Competency: The demand to teach and evaluate competency is now required of academic departments by the Accreditation Council for Graduate Medical Education. How will this be done? Is the safety of patients a unifying theme of these competencies? How can anesthesiology play a central safety role in defining how this can be done for others to emulate?

Training for emergencies: Beyond advanced cardiac life support (and even that is not required by all), do academic departments provide practice in managing rare emergencies, or is it really an example of “see one (if you are ‘fortunate’), do one, teach one”? Training for emergencies is basic to safety, but why is it still not done routinely?

Perioperative teamwork: To us the next trend in anesthesiology safety is clear. The idea comes directly from the high-reliability organization (HRO) theory, the principle on which some other high-risk, complex systems run very high-tempo operations with a very low failure rate.^{5,6} HRO theory suggests that anesthesiology must step beyond its parochial world and collaborate intensively with all of its partners in patient safety in the perioperative setting. Academic departments of anesthesiology should be stepping forward now to develop close relationships with their colleagues in surgery and nursing at national and local levels to develop coherent strategies and real-world tactics to create a true teamwork environment and to implement the key elements of HRO in their institutions. Collaboration and sharing of resources will work to everyone’s advantage.

Simulation: How widely used is simulation — from problem-based learning trainers using computers to full environment simulators — in anesthesiology training programs? We are approaching a tipping point where simulation will become a dominant tool in education. Having been the leading medical specialty in developing the first full-environment, hands-on simulators and some computer-screen-based simulators, where is anesthesiology now on the national stage in promulgating this concept? Losing ground, I think. Bold moves are needed, not for the sake of a technology, but for the sake of creating fundamental changes in education to a condition where patients are not the first source of educational “material.”

Simulation addresses many of the above safety issues. It is a tool for measuring some components of competency, training for emergencies and teamwork. Its very use suggests a culture that cares about safety. Simulation is not pervasive, and, where it is used, it has not altered the deep structure of education and training. Physicians, including anesthesiologists, do not yet train as pilots do, with comprehensive training and assessment throughout their career. Is such training even more important for the greater complexity of patient care? How quickly this change occurs depends on economic,

“Should we not instill in our residents both pride in our accomplishments to date and a sense of the unfulfilled safety mission of anesthesiology? How can we do this in the face of the rising pressures for cost and productivity?”

curriculum and political innovations. Anesthesiologists should once again take the lead.

Anesthesiology initiated the patient safety movement and the use of simulation for crisis management and team training. As with other innovations (cardiopulmonary resuscitation, critical care and autologous transfusion), however, these advances are being promulgated by others who in the process are forgetting the source of discovery. This will be unfortunate for anesthesiology. Perhaps it need not happen this time. Leadership from the academic community is needed to advance patient safety and to energize anesthesiology education and training. It is time to address the questions posed above so that anesthesiology can once again lead the way.

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Editor’s note: Dr. Cooper recently received the John M. Eisenberg Patient Safety Award. This is fully described in an interview by Steven Berman, M.D., in Individual Lifetime Achievement. Jeffrey B. Cooper, Ph.D., Massachusetts General Hospital. *Joint Commission Journal on Quality and Safety*. 2003; 29:625-633.

New Medicare Payment Rules for Teaching Anesthesiologists

Roger W. Litwiller, M.D., President
American Society of Anesthesiologists

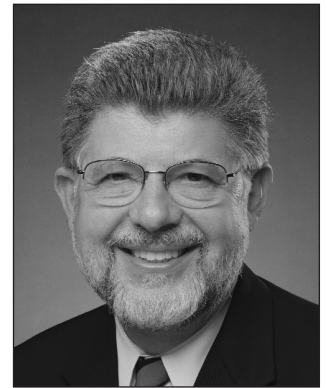
Until January 1 of this year, anesthesiologists supervising residents in concurrent cases had a single option in billing Medicare: to designate each case as “medically directed” and to collect only 50 percent of the normal payment or “allowable amount.” In contrast teaching surgeons are entitled to 100 percent of the allowable amount for two overlapping surgeries as long as they are present during the critical portions of both procedures.

James E. Cottrell, M.D., ASA Immediate Past President, worked hard last year to persuade Medicare to pay teaching anesthesiologists on the same basis that it pays for the services of teaching surgeons. Unfortunately the new option is not the principle applicable to teaching surgeons but rather the rule for payment to teaching nurse anesthetists (i.e., nurse anesthetists who teach student nurse anesthetists). For each of two concurrent resident cases, Medicare will pay the attending anesthesiologist the full base units, provided that the attending is present with the residents throughout preanesthesia and postanesthesia care, plus the actual time that the attending is personally present with each resident.

Parity with teaching surgeons — 100 percent of the allowable amount for each of two concurrent resident cases — and not with teaching nurse anesthetists is still the goal. In its response to the proposed rule containing the nurse anesthetist option, ASA gave the Centers for Medicare & Medicaid Services (CMS) notice that we would seek a new rule applying the teaching surgeon principles to anesthesiologists in 2005.

Meanwhile training programs should evaluate for themselves whether to use the new option (nurse anesthetist rule) or the medical direction rules. The difference in Medicare payment for a hypothetical teaching case with six base units and

thetia time were to double to three hours and the attending were still present for 40 minutes, the medical direction allowance would increase to \$157.50 (3 base units + [12 x .5] time units). The difference here is rather small; each academic department will have to determine the average units generated by its cases and then decide whether to use the new rule or to continue to submit claims for medical direction.



Roger W. Litwiller, M.D.

“If CMS were to use the teaching surgeon model for a new rule for anesthesiology resident cases, the anesthesiologist would only need to be present during the critical or key portions of each case.”

Another decision the department will have to make is whether to bill all of its concurrent resident cases using one or the other method or whether to choose between the new option and medical direction on a case-by-case basis. It might be too complicated and time-consuming to select the billing method according to the number of base and time units produced by each case.

In any event, it is important to remember that the conditions for billing either the new option or medical direction must be met. The “seven steps” of medical direction are familiar to all

of us. In order to report a teaching case using the new option, the attending must document his or her presence for the full duration of the preoperative and postoperative phases of the case as well as the actual total minutes during which he or she was present.

The nurse anesthetist teaching rule is obviously not an appropriate fit. For one thing, there is no need for close and continuous supervision of physicians, as opposed

to nurses, providing preanesthesia and postanesthesia care — the intraoperative phase is far more critical.

If CMS were to use the teaching surgeon model for a new rule for anesthesiology resident cases, the anesthesiologist

Table 1

	New Option	Medical Direction
Base Units	6	3
Time Units	2.7 (x 15 minutes)	3 ([6 x 15 minutes] x 50%)
x 2004 Medicare Conversion Factor	8.7 x \$17.50 = \$152.25	6 x \$17.50 = \$105.00

one and one-half hours of anesthesia time (six time units) during which the attending was present with the resident would be as appears in Table 1.

In relatively short cases, the new option will produce the higher payment. In longer cases, however, medical direction would still be preferable. If, in the above example, the anes-

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Educational Advisory Board Report

Performance Assessment: Practical Considerations in Measuring Competence

David J. Murray, M.D.
Professor, Department of Anesthesiology
Director, Clinical Simulation Center
Washington University School of Medicine
St. Louis, Missouri

In clinical practice, continuing medical education (CME), recertification examinations and peer review of clinical care are the main methods used to assess or improve practitioner skill. Unfortunately traditional didactic learning experiences used in most CME are not effective in changing practices or improving skills.¹ The pen-and-paper approach used in recertification evaluations test knowledge but underemphasize important domains of competence, including integration of knowledge into clinical practice.² Peer review is the most frequently advocated method of assessing performance in practice. Among the drawbacks to the peer process is that the review is retrospective, and the judgments of care are often based on a patient's medical record. This method of review may not be a reliable measure of provider skill.³ In addition expert physicians often disagree about quality-of-care issues when reviewing a patient's record. The peers must separate the unique skills of a provider from those of other members of the health care team and from the hospital environment. Finally this type of review evaluates only a portion of practitioners, perhaps those individuals who do not meet a performance standard and could benefit from remedial training; but this type of review also targets practitioners involved in the highest acuity of anesthesia care.

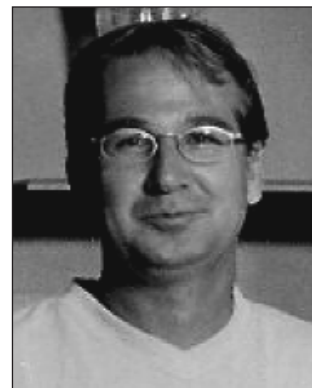
The current emphasis on individual performance assessment is a necessary step to increase skill and elevate practice standards. The advent of this type of practice evaluation requires methods to effectively measure and increase a professional's skill and performance in patient care situations. The current approach to performance assessment taken by the National Board of Medical Examiners (NBME) and the Accreditation Council for Graduate Medical Education (ACGME) < www.acgme.org > might serve as a template for similar measures for clinical practice.

Performance assessment in clinical practice demands a set of innovative methods that effectively assess and improve the skills of practitioners.

The implementation of the Clinical Skills Assessment by NBME is a high-profile example of the commitment to performance evaluation in health care professions. In June 2004, more than 17,000 medical school graduates at 126 accredited U.S. medical schools will be evaluated with a multistation, standardized patient examination that measures skill in essential elements of clinical practice. ACGME has simultaneously initiated a series of steps designed to provide additional measures of a trainee's competence in various domains of practice. The second of the four-phase ACGME outcomes assessment project challenges training programs to develop methods to effectively assess the skills and competence of residents in graduate training programs. While the impact of these steps

in medical education and assessment will take years to evaluate, it is likely that many specialty boards will follow the lead taken by NBME and ACGME in adopting more relevant methods to measure clinical performance, particularly when making certification decisions.⁴ The long-term goal of these programs is to make competence "a habit" that "engage(s) all physicians."⁵

In the future, improved patient safety will increasingly depend on enhancing the skills of individual practitioners. By improving each practitioner's skill, practice standards will advance and ultimately reduce patient morbidity and mortality. Problem-based learning and interactive screen-based training are effective CME strategies that may improve performance. Simulation training is an underutilized modality that could be used to evaluate as well as train anesthesiologists in managing those situations known to be associated with patient mortality.^{6,7} Simulators are particularly helpful in training situations that require clinical reasoning, pattern recognition and action. To date, even though simulation is recognized as a means to improve patient safety, a strategy that utilizes simulation to assess skills is not readily available.⁶



David J. Murray, M.D.

The current emphasis on individual performance assessment is a necessary step to increase skill and elevate practice standards.

Anesthesiology has led the medical profession in developing and adopting strategies that enhance quality of care and improve patient safety. The next stage of patient safety efforts will require strategies to enhance the competence of providers.⁴ Regardless of which programs are implemented to assess skill, some of our current approaches will need to be abandoned to "make room" for some of the more relevant and effective strategies that accomplish the goal of measuring performance.

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AUA 2004 Annual Meeting

May 13-15, 2004
Sacramento, California

*Joseph F. Antognini, M.D.
Davis, California*

Sacramento, California, “The Camellia City,” is the site of the 2004 AUA Annual Meeting, which will be held on May 13-15. The University of California-Davis (UC-Davis) Department of Anesthesiology and Pain Medicine will host the meeting. Located in the “Great Valley,” Sacramento is the capital of California and is an exciting, vibrant metropolitan area with a population of more than 400,000.

UC-Davis is one of only 62 members of the prestigious Association of American Universities. More than 26,000 students pursue undergraduate and graduate degrees in a wide variety of fields and disciplines. Twenty-four undergraduate programs were recently ranked among the top 10 programs in the United States, and UC-Davis is in the top 25 of universities in research funding.

The school of medicine is the only medical school for inland northern California, while the UC-Davis Health System cares for patients throughout California. The department of anesthesiology and pain medicine was one of seven founding departments when the medical school was established in 1966, and it has become a leading teaching, research and clinical department.

The AUA meeting will be held at the beautiful Sheraton Grand Hotel, which opened in 2001. The Sheraton is connected to the Public Market Building, which was originally designed by Julia Morgan and once served as a bustling marketplace for produce, meats and other goods. The hotel has the latest amenities and is perfectly suited for the AUA Annual Meeting.

The hotel is just a few steps from the beautiful capitol building and Capitol Park, which contains various trees from around the world. A reception will be held at the California Railroad Museum in Old Sacramento, a must-see for railroad enthusiasts. Come and marvel at the huge locomotives and learn about the importance of the railroad to the history of this great state. While you are in Old Sacramento, walk through the restored buildings that tell the story of Sacramento from its infancy to the present.

As with prior AUA meetings, the Educational Advisory Board and Scientific Advisory Board will present informative and exciting talks about the important challenges that face academic anesthesiology. We are planning a host program that will be fun and informative.

Many world-renowned attractions are only a short drive away from Sacramento, including stunning Lake Tahoe and its gorgeous blue water. Yosemite National Park is nearby with its magnificent waterfalls that are in full “fall” during May. And, of course, the enchanted Napa Valley and its world-famous wineries are not to be missed. So please extend your time here in northern California to visit some of the world’s most beautiful sites.



Joseph F. Antognini, M.D.

**See pages 6-7 for meeting
program information**



AUA 2004 Annual Meeting Program

Sacramento, California

Thursday, May 13, 2004

12 noon - 9 p.m.
Registration

1 p.m. - 1:15 p.m.
Introduction to the 51st Annual Meeting
Joseph F. Antognini, M.D.
Professor, Anesthesiology and Pain Medicine
University of California-Davis, Davis, California

Scientific Advisory Board Program, Part 1
1:15 p.m. - 1:30 p.m.
SAB Program Introduction
C. Michael Crowder, M.D., Ph.D., Associate Professor
of Anesthesiology, Washington University, St. Louis,
Missouri

1:30 p.m. - 2:30 p.m.
Oral Presentations

2:30 p.m. - 3 p.m.
Coffee Break and Poster Viewing

3 p.m. - 4 p.m.
Oral Presentations

4 p.m. - 5:30 p.m.
Poster-Discussion Session

6 p.m. - 7 p.m.
Residents and Fellows Reception

7 p.m. - 10 p.m.
Welcome Reception

Friday, May 14, 2004

7 a.m. - 4 p.m.
Registration

7 a.m. - 7:50 a.m.
Continental Breakfast

Educational Advisory Board Program, Part 1
8 a.m. - 8:05 a.m.
EAB Program Introduction
Jonathan B. Mark, M.D., Professor of Anesthesiology,
Duke University Medical Center, Veterans Affairs
Medical Center, Durham, North Carolina

8:05 a.m. - 8:25 a.m.

*From Recertification to Maintenance of Certification: An
ABA Perspective*

Patricia A. Kapur, M.D., Secretary, American Board of
Anesthesiology, Chair and Professor of Clinical
Anesthesia, David Geffen School of Medicine at
UCLA, Los Angeles, California

8:25 a.m. - 8:45 a.m.

*From Recertification to Maintenance of Certification: An
ASA Perspective*

Bruce F. Cullen, M.D., Professor of Anesthesiology,
Harborview Medical Center, Seattle, Washington, Vice-
President for Scientific Affairs, American Society of
Anesthesiologists (ASA), Chair, ASA Committee on
Professional Education Oversight

8:45 a.m. - 9 a.m.

Questions and Discussion

9 a.m. - 9:45 a.m.

*Medical Libraries and Information Services: Current Crisis
and Future Solutions*

Daniel Greenstein, University Librarian and Executive
Director, California Digital Library, Oakland,
California

9:45 a.m. - 10 a.m.

Questions and Discussion

10 a.m. - 10:15 a.m.

Coffee Break and Poster Viewing

Educational Advisory Board Program, Part 2

10:15 a.m. - 10:45 a.m.

*Keeping Our Patients Safe: When Should You Call for an
Anesthesiologist?*

Steven J. Barker, Ph.D., M.D., Chair and Professor of
Anesthesiology, Professor of Aerospace and
Mechanical Engineering, University of Arizona,
Tucson, Arizona, Chair, ASA Committee on Patient
Safety and Risk Management

10:45 a.m. - 11:30 a.m.

*Studying Patient Safety: Important Questions and
Innovative Research Methods*

Paul R. Barach, B.Sc., M.D., M.P.H.
Associate Professor, Department of Anesthesiology,
Medical Director of Quality and Safety, Jackson
Memorial Hospital and Director, Miami Center for
Patient Safety, University of Miami, Miami, Florida

11:30 a.m. - 11:45 a.m.
Questions and Discussion

11:45 a.m. - 1 p.m.
EAB, SAB and President's Luncheon

11:45 a.m. - 1 p.m.
Group Luncheon

Scientific Advisory Board Program, Part 2

1 p.m. - 2 p.m.
NIH Session: An Update from NINDS
Story Landis, Ph.D., Director of National Institute of
Neurological Disorders and Stroke, Bethesda,
Maryland

2 p.m. - 2:15 p.m.
ASA President's Update
Roger W. Litwiller, M.D., ASA President

2:15 p.m. - 2:30 p.m.
Coffee Break and Poster Viewing

2:30 p.m. - 4:15 p.m.
*AUA President's Panel: Measuring Meaningful Surgical
and Anesthesia Outcomes: Separating the Signal From the
Noise*

David E. Longnecker, M.D., F.R.C.A., Senior Vice-
President and Corporate Chief Medical Officer, Robert
D. Dripps Professor of Anesthesia, University of
Pennsylvania Health System, Philadelphia,
Pennsylvania

Shukri F. Khuri, M.D., Professor and Chief of
Surgery, Veterans Affairs, Boston Healthcare System,
Boston, Massachusetts

Terri G. Monk, M.D., Professor of Anesthesiology,
Duke University Medical Center, Veterans Affairs
Medical Center, Durham, North Carolina

Jeffrey H. Silber, M.D., Ph.D., Associate Professor of
Pediatrics, Anesthesia and Health Care Systems,
University of Pennsylvania and Director, Center for
Outcomes Research, Children's Hospital of Philadelphia

4:15 p.m. - 5:30 p.m.
AUA Business Meeting

7 p.m. - 10 p.m.
Social Event at the California State Railroad Museum

Saturday, May 15, 2004

7 a.m. - 4 p.m.
Registration

7 a.m. - 8 a.m.
Continental Breakfast

8 a.m. - 10:15 a.m.
*Host Program: How Do We Compare Humans and Animals?
Size Effects on Physiology*
James H. Jones, D.V.M., Ph.D.
Professor, Surgical and Radiological Sciences, School of
Veterinary Medicine, University of California-Davis

The Numbing Effects of Race
Ward Connerly, Regent, University of California,
Sacramento, California

10:15 a.m. - 10:30 a.m.
Coffee Break and Poster Viewing

10:30 a.m. - 12 noon
*Host Program: City of the Plain: Sacramento at the
Dawn of California Statehood*
Walter P. Gray III, California State Archivist,
Sacramento, California

Beer: A Dietary Delight That Cemented Society
Charles Bamforth, Ph.D., Professor, Food Science and
Technology, University of California-Davis

12 noon - 1:30 p.m.
Group Luncheon

Scientific Advisory Board Program, Part 3

1:30 p.m. - 2:30 p.m.
Oral Presentations

2:30 p.m. - 3:30 p.m.
*The Role of Pseudomonas Aeruginosa in Lung Function
in Critically Ill Patients*
Jeanine Wiener-Kronish, M.D., Vice-Chair for
Research, Professor, Department of Anesthesia,
University of California-San Francisco

3:30 p.m. - 4:30 p.m.
Poster Viewing with SAB Facilitators

7 p.m. - 10 p.m.
Social Event at Golden State Museum



Letter to the Editor

Dear Dr. Kofke,

I enjoyed your "Departmental Focus" that featured the department of anesthesiology at Washington University in St. Louis, Missouri (Winter 2003 *AUA Update*). It was interesting and informative, especially for those of us who well remember the days before the successes you describe occurred. It seemed a paradox to some of us that such a university would be late in such development. I look forward to further "Departmental Focus" reviews.

I wish to make a comment that I sincerely hope will add to rather than detract from my compliments to you. There are two living people who could add much to the historical base for the department's current success and status. I refer to C. Ronald Stephen, M.D., whom you mentioned in the article, and Doug Eastwood, M.D., now living in retirement in Cleveland, Ohio. It is true that there was not a department before, but there were attempts to develop one, and some success obtained. The predepartmental struggles and experiences are perhaps necessary and no doubt had some effect on the eventual happenings.

It may be of interest to relate that in 1949, Evarts A. Graham, M.D., personally selected James Elam, M.D., to train in anesthesiology with the intent that he return to St. Louis to develop a department there. Dr. Elam was wise enough to realize during his training that his interest was ion research and not in the political efforts necessary to be involved in the regime change required. Dr. Eastwood, who had been involved in Dr. Elam's training, went to St. Louis, and after some success, gave up; but during that time, some residents were trained and some research was done. Most of the soda lime-absorbing systems in use today are direct off-shoots of the work done there by Dr. Elam and Elwyn Brown, M.D., who was one of Dr. Eastwood's residents there.

Thanks for the interesting article.

William K. Hamilton, M.D.
Santa Rosa, California

New Medicare Payment Rules for Teaching Anesthesiologists

Continued from page 3

would only need to be present during the critical or key portions of each case. Those would almost certainly include induction and emergence (if applicable), but the attending might be able to supervise a very short case between the induction and emergence phases of a second, longer case. In a more frequent scenario where emergence is not considered a key portion, the anesthesiologist could participate in induction in a second case immediately after emergence from anesthesia in the first case. Both cases would receive the full Medicare allowed payment.

The rule adopted last year, allowing us to use the teaching nurse anesthetist rule's principles, was an important beginning, if a quite unanticipated turn of events. (This solution was not even mentioned during an ASA representatives' meeting with CMS Administrator Thomas Scully last year but was reportedly the result of a snap judgment made by Mr. Scully minutes after the ASA delegation left.) We will continue to pursue equal treatment with the surgeons this year.

Editor's Note: *I would like to share an e-mail exchange that took place between Dr. Litwiller and myself soon after this article was submitted:*

Dr. Kofke: *I want to be sure about this. This means they are following the principle for paying CRNAs who teach SRNAs, right? Not a rule for paying anesthesiologists who teach SRNAs? With this rule, if followed, the M.D. has to document each minute he/she is physically in the O.R. with the resident, making it literally impossible to bill for concurrent rooms. This is still highly different for us from what our local spine surgeon gets when he is running around operating on four rooms at once with anesthesia and nursing watching a surgical resident doing nothing waiting for his attending.*

Dr. Litwiller: *You are correct in your analysis.*



Council of Academic Societies Report

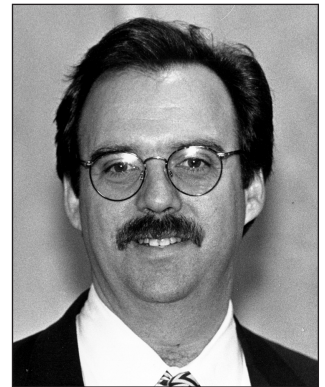
Lee A. Fleisher, M.D.
Chair, Department of Anesthesia
University of Pennsylvania
Philadelphia, Pennsylvania

The Association of American Medical Colleges (AAMC) is a nonprofit association founded in 1876 that works toward reforming medical education. It has as its purpose the improvement of the nation's health through the advancement of medical schools and teaching hospitals. It is composed of five constituent components: the Council of Deans, the Council of Teaching Hospitals and Health Systems, the Council of Academic Societies, the Organization of Student Representatives and the Organization of Resident Representatives. AUA is one of 94 professional organizations with representatives in the Council of Academic Societies (CAS). The mission of CAS is to help the faculty of medical schools and teaching hospitals to pursue their primary responsibility of research, education and patient care. AUA currently appoints two representatives to CAS.

The other anesthesiology groups that have members include the Society of Academic Anesthesiology Chairs/Association of Anesthesiology Program Directors and

the Society for Education in Anesthesia. CAS meets twice a year, once in an independent meeting in the spring and again as part of the larger AAMC meeting in the fall. The focus of the meetings is to provide elected representatives with information

The mission of CAS is to help the faculty of medical schools and teaching hospitals to pursue their primary responsibility of research, education and patient care.



Lee A. Fleisher, M.D.

on how to improve their multiple primary responsibilities. As a member of the governing body of AAMC, the representatives also are provided with opportunities to endorse AAMC projects. For example, AUA has endorsed the recent National Institutes of Health initiative and funding opportunities through approval of the president and council.

It has been an honor to serve as one of the council representatives, and I hope to use future articles to provide you with updates from AAMC.

Performance Assessment: Practical Considerations in Measuring Competence

Continued from page 4

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Scientific Advisory Board Report

Clinical Practice Guidelines: Help or Hindrance?

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Clinical practice guidelines or clinical pathways are necessary in providing a foundation for clinical decision making, yet their applicability on the frontline is not always feasible.

Guidelines are generally used by the medical practitioner to increase reliability for key processes in health care such as the use of evidence-based therapies. The National Guidelines Clearinghouse (NGC) < www.guidelines.gov > lists more than 1,154 current guidelines for everything from simply preventing ingrown toenails to more complex management of intravascular catheter-related infections.

While guidelines are important, they are typically complex, written for physicians alone, and not recognized by all physicians as helpful in the patient-care process. The Guidelines for the Management of Intravascular Catheter-Related Infections are 24 pages long and have 210 supporting references. Guidelines like these are set up so that each decision node is a conditional probability statement (if “yes,” then ...) to help guide and validate therapies chosen for specific diseases or conditions. Because tasks are not divided into simple dichotomies, however, guidelines are far more complex and unwieldy and do not comply with how caregivers make decisions.¹ Under time pressures, caregivers recognize patterns or deviations from patterns rather than think in terms of conditional probabilities. It also is difficult to monitor performance of a guideline. Checklists, on the other hand, may be a more usable alternative to guidelines, especially for areas where there is strong evidence regarding what interventions patients should receive.

An additional problem is that most practice guidelines, especially those developed by professional societies, are written for physician use, and in some cases, health administrators for cost containment,² ignoring other members of the care team who participate in care and could provide an independent check. Again a simple solution to this problem is to convert a guideline into a one-page checklist. Particularly helpful are checklists that enlist physicians, nurses and other caregivers to ensure compliance with evidence-based therapies. For example we developed a checklist for compliance with guidelines for inserting central venous catheters developed by the Centers for Disease Control and Prevention < www.cdc.gov > .

We asked the nurses who assist physicians inserting the lines to ensure that physicians comply with each step on the checklist. If physicians did not comply, nurses were empowered to intercede. This checklist (see page 11) has reduced bloodstream infection rates in one intensive care unit (ICU) by



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96 percent, nearly eliminating these infections. We have achieved similar results in more than 10 other ICUs.

Finally there are physicians who question how helpful guidelines are in caring for patients. One study involving pediatricians felt that guidelines “left little room for their personal experience and judgment” and were not well received by the patient’s parents.³ Others, such as Fang⁴ and Feinstein,⁵ question physician use of protocols as a “cookbook” approach to patient care that limits their ability to think outside the box. Yet NGC adopted the Institute of Medicine’s (IOM’s) definition of clinical practice guidelines as “statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances.”⁶

Based on the trepidation by some physicians and IOM’s definition for practice guidelines, it may be necessary to research physician compliance, address barriers and provide simple interventions (such as checklists) for use on the frontline. The tools must be valid yet feasible, a balance that has been elusive in health care.

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Catheter-Related Bloodstream Infection Care Team Checklist

Purpose: To work as a team to decrease patient harm from catheter-related bloodstream infections.
When: During **all** central venous or central arterial line insertions or rewires.
By whom: Bedside nurse.

- If there is an observed violation of infection control practices, line placement should stop immediately, and the violation should be corrected. If a correction is required, mark “yes” to question number 6.
- If there are any concerns, the bedside nurse should contact the intensive care unit attending directly.

1. Today's date: _____ / _____ / _____
month day year

2. Location: SICU Weinberg ICU

3. Procedure: New line Rewire

4. Is the procedure: Elective Emergent

	Yes	No	Don't know
5. Before the procedure, did the housestaff:			
Wash hands (chlorhexidine or soap) immediately prior?	<input type="checkbox"/>	<input type="checkbox"/>	(Ask if needed)
Was hand-washing directly observed?	<input type="checkbox"/>	<input type="checkbox"/>	
Sterilize procedure site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Drape entire patient in a sterile fashion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During the procedure, did the housestaff:

Use sterile gloves?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use hat, mask and sterile gown?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintain a sterile field?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Did all personnel assisting with procedure follow the above precautions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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After the procedure:

Was a sterile dressing applied to the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	Yes	No
6. Was a correction required to ensure compliance with infection-control practices?	<input type="checkbox"/>	<input type="checkbox"/>

Please return completed form to the designated location in your ICU.

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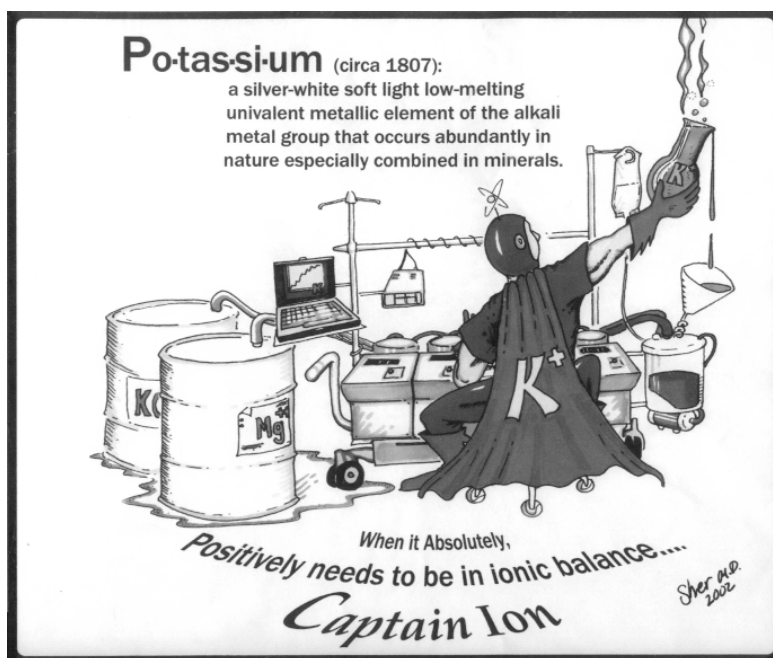
Anesthesia Foundation Book/Multimedia Award

The winner of The Anesthesia Foundation's 2003 Book/Multimedia Education Award was announced on October 13, 2003, at the American Society of Anesthesiologists Annual Meeting in San Francisco, California. Julie M. Fenster received the award for her book *Ether Day*. Ms. Fenster will be presented the award of \$10,000 at the Academy of Anesthesiology 2004 Spring Meeting in Vancouver, British Columbia, Canada.

This prestigious award is given tri-yearly for excellence and innovation in books or multimedia with significant impact on the science and practice of anesthesiology, critical care or pain medicine. Previous award winners include B. Raymond Fink, M.D. (1978-79) for *Laryngeal Biomechanics* and David L. Brown, M.D. (1991-93) for *Atlas of Regional Anesthesia*.

Historian and author Julie M. Fenster has written several books on business history as well as many articles on general topics for American Heritage and its associated publications. She also has contributed articles to other publications, including the *New York Times*, *Los Angeles Times* and many magazines. While at American Heritage, she began to focus on medical history with pieces on sickle-cell anemia and the development of artificial organs among other subjects. One of her articles for American Heritage, a major piece regarding the tragic circumstances surrounding the discovery of anesthesia, inspired her to write *Ether Day*.

Since the book's publication in August 2001, it has received excellent reviews in a number of publications, including the *New York Times*, *American History*, *Journal of the American Medical Association* and *Anesthesiology*. In January 2002, Ms. Fenster was invited to speak at Harvard University Medical School on *Ether Day*, a talk that was later broadcast on C-SPAN.



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