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UC Denver to Host 2010 AUA Annual Meeting

Thomas Henthorn, M.D. Chairman, Host
Joy Hawkins, M.D., Residency Director, Co-Host

The Department of Anesthesiology at the University of Colorado, Denver (UCD) will host the 57th AUA Annual Meeting at the Grand Hyatt Hotel and Convention Center in Denver on April 8-10, 2010.



Anschutz Medical Campus

Army Hospital No. 21, built in 1918, arose from the U.S. government's need to treat large numbers of casualties resulting from the use of chemical weapons during World War I. The facility was later renamed the Fitzsimons General Hospital in honor of Lt. William T. Fitzsimons, the first American medical officer killed in World War I. It was used during WW II to treat returning casualties and became one of the Army's premier medical training centers. U.S. Senator John Kerry was born there in 1943 while his father was receiving treatment for tuberculosis. In 1955, while vacationing with his in-laws in Denver, President Dwight Eisenhower suffered a myocardial infarction and spent seven weeks convalescing at Fitzsimons. In 2000, his hospital



Thomas Henthorn, M.D.



Joy Hawkins, M.D.

2010 Annual Meeting

Grand Hyatt Hotel and
Convention Center

Denver, Colorado
April 8-10, 2010

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UC Denver to Host 2010 AUA Annual Meeting

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suite was restored to its 1950s appearance and is now open to visitors. The old hospital remains a designated historic site.

When the Fitzsimons Medical Center was closed in 1995, officials from the Health Sciences Center, the University Colorado Hospital, and the City of Aurora approached the Department of Defense with an innovative proposal to use that land to build — from the ground up — a world-class academic health center. The ceremonial groundbreaking in 1998 began the transformation of a decommissioned Army base into the Anschutz Medical Campus (AMC), the world's only completely new education, research and patient care facility.

Named in recognition of the Anschutz Foundation for its ongoing support, the AMC is the largest academic health center between Chicago, Texas and the West Coast. Its 227 acres include more than 3.4 million square feet of cutting-edge education, patient care and research space. The University of Colorado Hospital and the Children's Hospital opened their doors in 2007, and construction of a new VA medical center is under way.



The University of Colorado, Denver and its affiliated hospital faculty rank 4th out of 75 public medical schools in the U.S. for research and spending, and 14th among all 126 medical schools belonging to the Association of American Medical Colleges. Learn more about Colorado medicine online at www.uchsc.edu/som and about the Department of Anesthesiology at www.uchsc.edu/anes.

Denver

10 Important Things to Know About Denver:

1. Denver really is exactly one mile high. In Denver's rarified air, golf balls go 10 percent farther. The sun feels warmer (you're closer to it), the sky is bluer (less water vapor), but your coffee is cooler, because water boils at 202 degrees.
2. Denver has a vibrant, walkable downtown. Within a one-mile radius, there are three sports stadiums, a performing arts complex, a mint producing 10 billion coins a year, art and history museums, a river offering white-water rafting, the country's only downtown amusement park, and 300-plus restaurants, brewpubs, and music clubs.
3. Denver is near the mountains, not in them. The mountain panorama from Denver is 140 miles long, with 200 visible named peaks. The Eisenhower Tunnel, running through

the mountains west of Denver, is the highest auto tunnel in the world.

4. It really is near: many of the top ski resorts, including Vail, Keystone, Breckenridge, Beaver Creek, Copper Mountain and Winter Park, are just a little over an hour away from Denver.
5. Denver's passion for the arts started early. In the Old West days, the town had a performance of Macbeth (staged in a saloon) before it had a school or a hospital. Today, metro Denver collects more for the arts on a per-capita basis than any other city. The Denver Performing Arts Complex is second in size only to New York's Lincoln Center.



6. Denver's history is short, but colorful. In 1858, not a single settler lived in the Denver metro area. Thirty years and one Gold Rush later, Colorado was a state with a population of almost 200,000.
7. Denver is a city of many colors and cultures. It grew by 30 percent in the 1990s – averaging 1,000 new people a week, every week, for 10 years. Today, 32 percent of the population is of Hispanic and Latino descent, and 11 percent are African-American. Among the city's numerous festivals is the nation's largest Cinco de Mayo celebration.
8. Denver loves its sports. It's one of only two cities (Philadelphia is the other) with eight professional sports teams, and the only city to build three new sports stadiums in the 1990s. The Denver Broncos have sold out every game for more than 20 years. Denver also hosts one of the world's largest rodeos – the National Western Stock Show and Horse Rodeo.
9. Denver is the “Napa Valley of Beer,” brewing more than any other city. Its American Beer Festival, the largest in the nation, features more than 1,900 beers. Coors is the world's largest brewery. On an average day, Denver brews more than 80 different beers, with Rocky Mountain spring water as an important ingredient.

10. Denver has the largest city park system in the country, plus more than 800 miles of off-street bike paths, 90 golf courses, and one of the nation's largest urban trail systems. With all those places to play and more than 300 days of sunshine annually, it's not surprising that Denver has been named as having the thinnest residents of any major U.S. city.



Grand Hyatt

The Grand Hyatt Denver, site of the 2010 AUA Annual Meeting, is a luxury hotel and conference facility situated at the heart of downtown Denver. The city's shopping, restaurant and gallery districts, as well as many museums and the Performing Arts Center, are all within easy walking distance. The Grand Hyatt itself is a mini-resort, complete with rooftop tennis court and jogging track and a 24-hour fitness center. The Grand Hyatt is easily accessible from Denver International Airport via shuttle, taxi or limo service. To learn more, visit www.granddenver.hyatt.com.

Host Program

The 2010 Annual Meeting Program will feature several exciting in-house speakers. Denver resident and member of the School of Medicine's advisory board, T.R. Reid, will discuss health care reform. His PBS "Frontline" presentation: Sick Around America <http://www.rmpbs.org/content/index.cfm/program/145-2710>

is a compelling look at this complex issue. Peter Hackett, M.D., of our Altitude Research Center, will talk about hypoxia, high-altitude medicine and mountaineering. He will be introduced by Tom Hornbein, M.D. And from among our "Arts Capital of the West" local resources, we bring you National Public Radio movie critic, and Professor of Film at UC Denver, Howie Movshovitz, Ph.D., and Professor of Medicine and Director of Arts and Medicine, Henry Claman, M.D.

Spouse Program

The 2010 Annual Meeting will offer a variety of activities for AUA member spouses to enjoy: visits to Denver's top-rated shopping spots, a mountain day spa, the Denver Botanic Gardens, plus a gallery walk and high tea at the famous Brown Palace Hotel are just some examples. Details will be included in the meeting registration brochure.

We at Colorado Anesthesiology are delighted to welcome you as our guests for the 2010 AUA Annual Meeting.



EAB Report - Competency-Based Education

Lindsey C. Henson, M.D., Ph.D.
Vice Dean for Education
Professor of Anesthesiology
University of Minnesota Medical School

Competency-based education is an approach to curriculum and assessment that places primary emphasis on identifying and measuring specific learning outcomes. It represents a paradigm shift from a “structure or process-based system (that) defines the training experience by exposure to specific content for specified periods of time” to a “competency-based system (that) defines the desired outcome of training.”¹ Competency-based medical education is international in scope [e.g., CanMeds (Canada), The Scottish Doctor, Tomorrow’s Doctors (United Kingdom), Training of Doctors (Netherlands)]. In the United States, it began with the ACGME Outcome Project www.acgme.org/Outcome/ and the AAMC’s Medical School Objectives Project www.aamc.org/meded/msop in the 1990s. The six ACGME core competencies have since been adopted by the ABMS for Maintenance of Certification www.abms.org/Maintenance of Certification. Recent projects defining competencies include work of the National Alliance for Physician Competence www.gmpusa.org and the AAMC-HHMI Scientific Foundations for Future Physicians report <https://services.aamc.org/publications>. Eventually, medical education will be competency-based across the continuum from medical school to practice, with licensure, hospital privileges, and credentialing by insurers requiring documentation of achieving and maintaining competencies.

“Competence” has been defined as the “habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served.”² Competence is what a physician can do in an integrated fashion as a professional. It is contextual (performance depends on abilities and the tasks required in a particular situation) and developmental (proceeds from novice through expert based on practice and reflection on experience).

“Competency” is defined as what a learner can do in a specific area, such as performing a physical examination or evaluating a research paper. For example: “*Demonstrates the ability to elicit, synthesize and interpret an appropriate history and list of the patient concerns in a respectful, logical and organized manner*” is a competency. A resident who can demonstrate these communication skills must also integrate a range of other competencies to actually care for a specific patient, with a specific problem, in a specific health care setting.

“Learning objectives” are statements of what a learner should be able to do after completing a specific unit of instruction (a single lecture, a series of small group sessions or the entire course). They are specific, measurable and focused on the student rather than the teacher. “*By the end of this session, the student will be able to appropriately set an agenda, establish a focus for the visit, and obtain and record the chief complaint and history of present illness*”

could be the learning objective for a session in a communications skills course designed to develop the competency defined above.

Competency-based education demands new approaches to curriculum and assessment.²⁻⁴ A useful framework for assessment of competence is Miller’s “pyramid”,⁵ which starts with a base of foundational knowledge (“knows”), builds to application of knowledge (“knows how”), then to demonstration of what can be done in a controlled setting (“shows how”), and culminates at its peak with what a physician actually does in practice (“does”). We are very good at assessing at the two lower levels, using factual tests and clinical context-based tests (e.g., USMLE Step 1, Step 2 CK and “shelf” exams, school- or residency program-specific course exams, written tests used for board certification and in-training exams). We use OSCEs (e.g., USMLE Step 2 CS), simulations and oral exams to assess what learners do in controlled settings. We supplement these objective tests with global ratings of performance in practice by faculty experts, which

despite their reputation for being “subjective,” can be reliable and reproducible with clear behavioral anchors and training of raters.⁶ Our difficulty is assessing at the level of “does,” and this is where portfolios,⁷ incognito standardized patients, videos of actual patient encounters, 360° evaluations, case logs and reflective essays can be used. Ideally, measurement in a competency-based educational program will use methods that cut across all levels of Miller’s pyramid.

There is controversy in the literature as to whether we can measure individual competencies,⁸ which is not surprising considering the relatively recent movement to this approach to medical education. However, the past approach, which involved



Lindsey C. Henson, M.D., Ph.D.

“Competency” is defined as what a learner can do in a specific area, such as performing a physical examination or evaluating a research paper.

measuring factual knowledge, obtaining global ratings for clinical rotations, using OSCEs and other simulations to test core clinical skills, and assuming that medical students and residents would somehow become the kinds of physicians expected by the public, is no longer an option. A major driver of the move to competency-based education internationally has been concern about the aspects of physician competence that we have not measured, such as professionalism, communication skills, and self assessment and lifelong learning.

Until now, the questions we asked in developing a curriculum were: 1) *What do we need to “cover”?* For medical schools, the current USMLEs are often used as one “guideline” since scores and pass rates are used in program evaluation. For residency, content is defined by topics on the in-training exam and the list of content areas in the RRC standards. 2) *How much time do we have to do it?* For medical schools, the LCME requires a minimum of 130 weeks of instruction and timing and process of the match constrain most schools to a four-year program. For residency, time is set by the length of the program (as defined by CMS payment periods and certifying boards) and RRC-defined minimum periods of time on specific subspecialty rotations. 3) *What teaching methods will we use?* This has been defined by what we know how to do – lectures, labs, case discussions, clinical assignments. Assessments are add-ons and are usually “norm referenced,” which means learners were compared to one another rather than pre-determined standards of performance.

With competency-based education, the questions are different: 1) What competencies do we want learners to demonstrate at the end of the program? How will we tell? What assessments will we use, when will we use them, how will we define standards or levels of achievement? The concern that competence will be a “floor” of performance is addressed by setting an appropriately high standard. 2) What content, teaching methods and other experiences should be included in the curriculum to help learners achieve the competencies? 3) What is our plan for learners who don’t achieve the competencies? Assessment is planned as a system⁹ and is “criterion referenced,” which means learners are compared to pre-determined expectations of performance.

Medical schools and residencies now map their learning objectives to competencies, but few have attempted to move competency-based education to the logical next step – which is for students and residents to progress based on achieving the competencies and therefore to progress at different rates. We say we are engaging in competency-based education, but the duration of our programs is fixed. A student or resident can take longer to complete training, but that usually occurs because of a leave for personal or academic reasons or a failure that must be remediated. We have not developed a way for our future physicians to move through training more quickly – despite the fact that the rising cost of medical education is one of our biggest challenges.

The potential of competency-based education is that we will eventually move to a “mastery learning” educational model^{10,11} in which progress is based on achieving competencies, not time. Mastery learning requires more systematic approaches to formative feedback and tracking of progress, a more flexible curriculum, attention to systematic development of clinical skills, clearly defined standards for competence, the use of criterion-referenced assessments, and the ability to provide a range of assessment and instructional methods. If we implement mastery learning competency-based education, some students could finish medical school in three (or fewer) years, while others might take longer than the traditional four years – but all would graduate having demonstrated competencies we expect. Residency could also take a variable amount of time. As a first step at the residency level, we could define the competencies we expect and allow residents who achieve them rapidly to fill their remaining RRC and ABA mandated time in the program enhancing their education outside the standard curriculum.

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SAB Report - Nanotechnology in Medicine

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Now is the time to think small in medicine – ultra-small – in order to think large. “Nano” has arrived, and nanotechnology applications to medicine are rapidly becoming part of research, diagnostics and therapeutics. Medicine will change over the next generation as implementation of nanoscience-based advances will alter how and what physicians practice.

Nanotechnology involves the study and use of molecular structures measuring between 1 and 100 nanometers. For purposes of scale, laying about 1 thousand 100-nanometer particles side by side would yield a structure having the width of a human hair. Although physicians and scientists have been studying and using nanoparticles for hundreds of years, it is only recent innovations in microscopy technologies that have allowed the viewing of discrete particles on the atomic-length scale.

Now that we can image nano-sized materials, a whole world of industrial, scientific and medical opportunities has emerged. Nanotechnology has become essentially a set of techniques to manipulate the properties of individual molecular structures. At this extremely small scale, nanotechnology has many grand applications in development of novel nanomaterials. These include nanomaterials for use as batteries having extremely long shelf-life or superfast recharging times; nanomaterials used in fuel cells to produce energy cleanly, efficiently and cheaply from biofuels; nanomaterials for construction of lightweight solar sails to reduce the cost and fuel requirements of spaceflight; nanosensors and nanorobots to improve performance of mechanical equipment and explore or evaluate extreme and possibly toxic environments. Carbon nanotubes, zinc oxide nanowires or palladium nanoparticles can be used in nanotechnology-based sensors capable of detecting very low concentration of chemical vapors. Nanotechnology is changing food science through development of nanomaterials that alter food taste and food safety. Nanotechnology is helping to solve critical water quality issues, such as development of nanoparticles that remove industrial wastes from groundwater or convert chemical contaminants into harmless reaction byproducts while reducing groundwater treatment costs. For tennis players and golfers, nanomaterials strengthen racquets and club shafts. Special fabrics made from nanoparticles or nanofibers improve wear, thermal insulation, chemical and vapor barrier characteristics as well as flexibility of garments without increasing weight or thickness.

For physicians, the most exciting innovations involving nanomaterials and nanotechnology are their utility in clinical medicine, referred to as nanomedicine. Nanomedicine is the medical use of molecular-sized particles to deliver drugs, heat, light or other substances to specific cells in the human body. The engineering design and manufacture of particles that are used in this way allows diagnosis and treatment of diseases or injuries at the cellular level. This can be further exploited to reduce the delivered dose of therapeutic or diagnostic agent (e.g., cancer chemotherapy drug, imaging contrast material) and thereby also minimize the potential damage to healthy tissue. Some specific examples are quantum dots, nanocarriers, nanoshells, nanotubes and nanorobots.



David M. Eckmann, Ph.D., M.D.

Quantum dot (Qdot) molecular imaging enables visualization of biologic processes occurring within cells and in small animals. Molecular probes attached to a protein or receptor allow for monitoring of interactions of the labeled species with other molecules, its localization with cells, and identification

of specific signaling pathways it utilizes in the performance of both normal and abnormal functions. Qdots are particularly resistant to biological degradation, making them superior to other types of optical imaging probes for tracking cell processes over long durations. Qdots confer an additional advantage since they can be color encoded. Different colors can be used to label different cell processes, different diseases or different stages of the same disease. This is particularly useful in studying oncological disorders, but has important implications for application to anesthesiology, including relevance to bioenergetics in sepsis research and therapeutics as well as the development of pain syndromes and efficacy of various treatments.

Nanocarriers for vascular or transmucosal drug delivery are constructs that typically bear a surface coating or surface structure that evokes molecular recognition for carrier binding or uptake. The carrier itself is loaded with a therapeutic agent in order to achieve a high drug concentration within the targeted tissue. Passive tissue targeting can be achieved with nanoparticle extravasation through increased permeability within tumor vasculature coupled with ineffective lymphatic drainage. For active cellular targeting, the nanocarrier surface is functional-

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ized with ligands specific for cell-surface expressed receptors in order to promote molecular recognition, receptor-ligand binding and nanoparticle capture on the cell surface. The nanoparticles can then release their cargoes close to the target cells, remain attached to the cell surface and perform extracellularly as a sustained-release drug depot, or become internalized into the cell and potentially transigrate deeper into adjacent tissues. Nanocarriers have enormous potential in the diagnosis and treatment of ischemia, thrombosis, inflammation, and vascular oxidative stress involved in the pathogenesis of stroke, ischemic heart disease, acute lung injury, diabetes and neoplastic diseases.

Nanoshells consist of a metallic outer layer and a silica core. Following intravascular injection, they become preferentially concentrated within malignancies as a result of a physical selectivity phenomenon known as enhanced permeation retention. Like nanocarriers, nanoshells can be decorated on the surface to bear molecular conjugates to various specific antigens that are expressed in a diseased tissue microenvironment. Typically, the application of this second degree of specificity has been used preferentially to link the nanoshells to tumor sites and not to neighboring healthy cells. Following cellular binding and uptake, energy is supplied externally by mechanical, radio frequency or optical means to the disease site. The mechanical properties associated with nanoshells enhance their absorption of site-directed energy, leading to development of intense, localized heating that selectively kills cells with minimal damage to surrounding healthy tissue.

Carbon nanotubes have extremely high mechanical strength, superb flexibility and low density, making them ideal scaffolding for the production of light, high-strength biomaterials such as bone. Single-walled carbon nanotubes are a naturally occurring form of carbon, and can readily mimic the role of collagen as the scaffold for growth of hydroxyapatite in bone. Future clinical application of nanotubes will include the development

of strong, flexible artificial bone materials. Surgical uses will likely include use of tissue-engineered nanotube-based bone grafting for fractures, nonunions and treatment of bone-thinning diseases such as osteoporosis.

In 1959, Nobel laureate physicist Richard P. Feynman proposed that machine tools could make smaller machine tools, and that those in turn could make even smaller machine tools, and so on, all the way down to the molecular scale. Feynman suggested that such tools might fabricate enormous numbers of ultra-small computers, nanoscale robots, and even medical “machines” that could perform as miniaturized surgeons. In medicine, nanorobots have obvious potential applications to serve as antibodies or antiviral agents in immunocompromised patients or to

be used to treat diseases that fail to respond to conventional therapies. Additional potential medical applications include repair of damaged tissue, unblocking of arteries obstructed by plaque, and even construction of complete replacement body organs. One major advantage of nanorobots is their mechanical durability. In theory, their functional operational lifetime is predicted to be years or decades. Nanoscale systems can also perform their function more quickly than their larger counterparts since distance displacements are smaller. This allows mechanical and electrical events to take place faster and with smaller energy requirements.

More than 80 years before Feynman’s prediction, British surgeon Sir John Eric Erichsen postulated that, “The abdomen, the chest, and the brain will be forever shut from the intrusion of the wise and humane surgeon.” The recent and rapid advances in nanotechnology may hasten that reality. The future innovations in nanomedicine will require adaptability in all aspects of anesthesiology practice, including critical care and pain management, as new procedures and new accompanying patient needs arise.

“Nanocarriers have enormous potential in the diagnosis and treatment of ischemia, thrombosis, inflammation, and vascular oxidative stress involved in the pathogenesis of stroke, ischemic heart disease, acute lung injury, diabetes and neoplastic diseases.”

Want to know what these devices are?

Go to www.woodlibrarymuseum.org to find out.



Conflict of Interest in Medical Research, Education and Practice

Bernard Lo and Marilyn J. Field, Editors
Committee on Conflict of Interest in Medical Research, Education and Practice
Board on Health Sciences Policy
Institute of Medicine of the National Academies
National Academies Press
Washington, D.C., 2009

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RECOMMENDATION 3.1

Institutions that carry out medical research, medical education, clinical care, or practice guideline development should adopt, implement, and make public conflict of interest policies for individuals that are consistent with the other recommendations in this report. To manage identified conflicts of interest and monitor the implementation of management recommendations, institutions should create a conflict of interest committee. That committee should use a full range of management tools, as appropriate, including elimination of the conflicting financial interest, prohibition or restriction of involvement of the individual with a conflict of interest in the activity related to the conflict, and providing additional disclosures of the conflict of interest.

RECOMMENDATION 3.2

As part of their conflict of interest policies, institutions should require individuals covered by their policies, including senior institutional officials, to disclose financial relationships with pharmaceutical, medical device, and biotechnology companies to the institution on an annual basis and when an individual's situation changes significantly. The policies should

- request disclosures that are sufficiently specific and comprehensive (with no minimum dollar threshold) to allow others to assess the severity of the conflicts;
- avoid unnecessary administrative burdens on individuals making disclosures; and
- require further disclosure, as appropriate, for example, to the conflict of interest committee, the institutional review board, and the contracts and grants office.

RECOMMENDATION 3.3

National organizations that represent academic medical centers, other health care providers, and physicians and researchers should convene a broad-based consensus development process to

establish a standard content, a standard format, and standard procedures for the disclosure of financial relationships with industry.

RECOMMENDATION 3.4

The U.S. Congress should create a national program that requires pharmaceutical, medical device, and biotechnology companies and their foundations to publicly report payments to physicians and other prescribers, biomedical researchers, health care institutions, professional societies, patient advocacy and disease-specific groups, providers of continuing medical education, and foundations created by any of these entities. Until the Congress acts, companies should voluntarily adopt such reporting.

RECOMMENDATION 4.1

Academic medical centers and other research institutions should establish a policy that individuals generally may not conduct research with human participants if they have a significant financial interest in an existing or potential product or a company that could be affected by the outcome of the research. Exceptions to the policy should be made public and should be permitted only if the conflict of interest committee (a) determines that an individual's participation is essential for the conduct of the research and (b) establishes an effective mechanism for managing the conflict and protecting the integrity of the research

RECOMMENDATION 5.1

For all faculty, students, residents, and fellows and for all associated training sites, academic medical centers and teaching hospitals should adopt and implement policies that prohibit

- the acceptance of items of material value from pharmaceutical, medical device, and biotechnology companies, except in specified situations;
- educational presentations or scientific publications that are controlled by industry or that contain substantial portions written by someone who is not identified as an author or who is not properly acknowledged;
- consulting arrangements that are not based on written contracts for expert services to be paid for at fair market value;
- access by drug and medical device sales representatives, except by faculty invitation, in accordance with institutional policies, in certain specified situations for training, patient safety, or the evaluation of medical devices; and
- the use of drug samples, except in specified situations for patients who lack financial access to medications.

Until their institutions adopt these recommendations, faculty and trainees at academic medical centers and teaching hospitals should voluntarily adopt them as standards for their own conduct.

RECOMMENDATION 5.2

Academic medical centers and teaching hospitals should educate faculty, medical students, and residents on how to avoid or manage conflicts of interest and relationships with pharmaceutical and medical device industry representatives. Accrediting organizations should develop standards that require formal education on these topics.

RECOMMENDATION 5.3

A new system of funding accredited continuing medical education should be developed that is free of industry influence, enhances public trust in the integrity of the system, and provides high-quality education. A consensus development process that includes representatives of the member organizations that created the accrediting body for continuing medical education, members of the public, and representatives of organizations such as certification boards that rely on continuing medical education should be convened to propose within 24 months of the publication of this report a funding system that will meet these goals.

RECOMMENDATION 6.1

Physicians, wherever their site of clinical practice, should

- not accept of items of material value from pharmaceutical, medical device, and biotechnology companies except when a transaction involves payment at fair market value for a legitimate service;
- not make educational presentations or publish scientific articles that are controlled by industry or contain substantial portions written by someone who is not identified as an author or who is not properly acknowledged;
- not enter into consulting arrangements unless they based on written contracts for expert services to be paid for at fair market value;
- not meet with pharmaceutical and medical device sales representatives except by documented appointment and at the physician's express invitation; and
- not accept drug samples except in certain situations for patients who lack financial access to medications.

Professional societies should amend their policies and codes of professional conduct to support these recommendations. Health care providers should establish policies for their employees and medical staff that are consistent with these recommendations.

RECOMMENDATION 6.2

Pharmaceutical, medical device, and biotechnology companies and their company foundations should have policies and practices against providing physicians with gifts, meals, drug samples (except for use by patients who lack financial access to medications), or other similar items of material value and against asking physicians to be authors of ghostwritten materials. Consulting arrangements should be for necessary services, documented in written contracts, and paid for at fair market value. Companies should not involve physicians and patients in marketing projects that are presented as clinical research.

RECOMMENDATION 7.1

Groups that develop clinical practice guidelines should generally exclude as panel members individuals with conflicts of interest and should not accept direct funding for clinical practice guideline development from medical product companies or company foundations. Groups should publicly disclose with each guideline their conflict of interest policies and procedures and the sources and amounts of indirect or direct funding received for development of the guideline. In the exceptional situation in which avoidance of panel members with conflicts of interest is impossible because of the critical need for their expertise, then groups should

- publicly document that they made a good-faith effort to find experts without conflicts of interest by issuing a public call for members and other recruitment measures;
- appoint a chair without a conflict of interest;
- limit members with conflicting interests to a distinct minority of the panel;
- exclude individuals who have a fiduciary or promotional relationship with a company that makes a product that may be affected by the guidelines;
- exclude panel members with conflicts from deliberating, drafting, or voting on specific recommendations; and
- publicly disclose the relevant conflicts of interest of panel members.

RECOMMENDATION 7.2

Accrediting and certification bodies, health insurers, public agencies, and other similar organizations should encourage institutions that develop clinical practice guidelines to adopt conflict of interest policies consistent with the recommendations in this report. Three desirable steps are for

- journals to require that all clinical practice guidelines accepted for publication describe (or provide an Internet link to) the developer's conflict of interest policies, the sources and amounts of funding for the guideline, and the relevant financial interests of guideline panel members, if any;
- the National Guidelines Clearinghouse to require that all clinical practice guidelines accepted for posting describe (or provide an Internet link to) the developer's conflict of interest policies, the sources and amounts of funding for

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Conflict of Interest in Medical Research, Education and Practice

Continued from page 9

development of the guideline, and the relevant financial interests of guideline panel members, if any; and

- accrediting and certification organizations, public and private health plans, and similar groups to avoid using clinical practice guidelines for performance measures, coverage decisions, and similar purposes if the guideline developers do not follow the practices recommended in this report.

RECOMMENDATION 8.1

The boards of trustees or the equivalent governing bodies of institutions engaged in medical research, medical education, patient care, or practice guideline development should establish their own standing committees on institutional conflicts of interest. These standing committees should

- have no members who themselves have conflicts of interest relevant to the activities of the institution;
- include at least one member who is not a member of the board or an employee or officer of the institution and who has some relevant expertise;
- create, as needed, administrative arrangements for the day-to-day oversight and management of institutional conflicts of interest, including those involving senior officials; and
- submit an annual report to the full board, which should be made public but in which the necessary modifications have been made to protect confidential information.

RECOMMENDATION 8.2

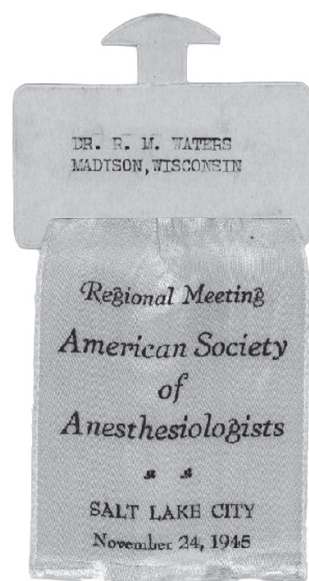
The National Institutes of Health should develop rules governing institutional conflicts of interest for research institutions covered by current U.S. Public Health Service regulations. The rules should require the reporting of identified institutional conflicts of interest and the steps that have been taken to eliminate or manage such conflicts.

RECOMMENDATION 9.1

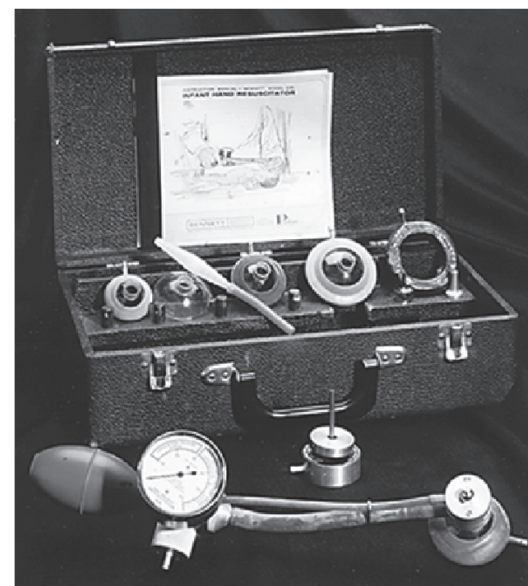
Accreditation and certification bodies, private health insurers, government agencies, and similar organizations should develop incentives to promote the adoption and effective implementation of conflict of interest policies by institutions engaged in medical research, medical education, clinical care, or practice guideline development. In developing the incentives, these organizations should involve the individuals and the institutions that would be affected.

RECOMMENDATION 9.2

To strengthen the evidence base for the design and application of conflict of interest policies, the U.S. Department of Health and Human Services should coordinate the development and funding of a research agenda to study the impact of conflicts of interest on the quality of medical research, education, and practice and on practice guideline development and to examine the positive and negative effects of conflict of interest policies on these outcomes.



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EAB Call for Nominations

The AUA Educational Advisory Board (EAB) helps to develop programs for the Annual Meeting. These programs are oriented toward the educational mission of our specialty. The EAB also contributes articles to the AUA newsletter. The full committee meets during the AUA Annual Meeting.

Committee members are expected to attend the AUA Annual Meeting and the EAB committee meeting as well as actively participate in all committee activities. AUA members who are interested in serving on the EAB, who plan on attending AUA Annual Meetings and who are willing to help undertake the work of the committee are encouraged to submit their names and a brief CV. Alternatively, AUA members can submit the name of another member along with a brief CV. Nomination materials should be sent by **December 1, 2009** to: Robert E. Shangraw, M.D., Ph.D., EAB Chair at shangraw@ohsu.edu.

The AUA Council and the EAB chair will choose three candidates who will then be contacted in the winter to confirm their willingness to serve. The three-year term begins at the 2010 AUA Annual Meeting.



SAB Call for Nominations

The AUA Council would like to invite AUA members to nominate another member or apply themselves for service on the Scientific Advisory Board (SAB). The SAB determines the scientific content of the Annual Meeting and provides input to the AUA Council on issues pertinent to the scientific mission of AUA. SAB has three responsibilities:

1. Grade abstracts for the AUA Annual Meeting and organize accepted abstracts into sessions;
2. Attend the AUA Annual Meeting to help poster and oral discussion sessions and attend the SAB working luncheon for discussion of issues relevant to the SAB; and
3. Contribute a 500- to 1,000-word article to the AUA newsletter once during the three-year term on the SAB. Articles might be short reviews of some recent scientific advance or pertinent topic, a meeting review or an opinion piece.

To nominate a member or to apply for service on the SAB, please e-mail curriculum vitae by **March 1, 2010** to: Marie Csete, M.D., Ph.D., SAB Chair at mariecsete1@gmail.com

The AUA Council and the SAB chair will choose two candidates who will then be contacted to confirm their willingness to serve. The three-year term begins after the AUA Annual Meeting.

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Future Meetings

April 8-10, 2010

57th Annual Meeting

Grand Hyatt Denver – Downtown Denver, Colorado

May 12-15, 2011

58th Annual Meeting

Loews Philadelphia Philadelphia, Pennsylvania

