

AMERICAN ASSOCIATION OF NEUROLOGICAL SURGEONS BULLETIN

The Socioeconomic and Professional Quarterly for AANS Members • Volume 13 No. 1 • Spring 2004

PROTECT PATIENTS

NOW!

**National Campaign
Enlists Public's Support
for Tort Reform**



INSIDE THIS ISSUE

- Annual Meeting Tour de Force 20
- New Column Debuts:
NS Innovations 8
- New Expert Testimony
Guidelines 33
- Leibrock Leadership
Development Conference 7



American
Association of
Neurological
Surgeons

DOCTORS
for
MEDICAL
LIABILITY
REFORM
DMLR

GET
INVOLVED

DMLR Needs
Your Support.
Please Act
Today!

DONATE NOW!

Donate your
time to Protect

NATIONAL HEADLINES

Don't Get Sick in
Washington
"Unless this
problem is
fixed, people

In A State Of



American
Association of
Neurological
Surgeons

CONTENTS

VOLUME 13 NO. 1

AANS MISSION

The AANS is dedicated to advancing the specialty of neurological surgery in order to provide the highest quality of neurosurgical care to the public.

AANS BULLETIN

The official publication of the American Association of Neurological Surgeons, the *Bulletin* features news about AANS and the field of neurosurgery, with a special emphasis on socioeconomic topics.

James R. Bean, MD, *editor*
Robert E. Harbaugh, MD, *associate editor*
Manda J. Seaver, *staff editor*

BULLETIN ADVISORY BOARD

Edward C. Benzel, MD
Deborah L. Benzil, MD
Frederick A. Boop, MD
Alan S. Boullos, MD
William T. Couldwell, MD
Fernando G. Diaz, MD
Haynes Louis Harkey, MD
David F. Jimenez, MD
Ali F. Krisht, MD
John A. Kusske, MD
Joel D. MacDonald, MD
Patrick W. McCormick, MD
Cheryl A. Muszynski, MD
Katie O. Orrico, JD
A. John Popp, MD
Gregory J. Przybylski, MD
Michael Schulder, MD
Brian R. Subach, MD
Gary D. Vander Ark, MD

CORRESPONDENCE Send your correspondence regarding the *Bulletin* to bulletin@AANS.org. Your comments and suggestions may be included in a future issue edited for length, clarity and style. Correspondence is assumed to be for publication unless otherwise specified.

ARTICLE IDEAS Send an article or article idea to the *Bulletin*, bulletin@AANS.org. Writing guidelines are available at www.AANS.org/bulletin.

PUBLICATION INFORMATION The *AANS Bulletin*, ISSN 1072-0456, is published quarterly by the AANS, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008, and distributed without charge to the neurosurgical community. Unless specifically stated otherwise, the opinions expressed and statements made in this publication are the authors' and do not imply endorsement by the AANS. AANS reserves the right to edit copy to comply with publication standards and available space. Searchable *Bulletin* archives are available at www.AANS.org/bulletin.

Copyright © 2003-2004 by the American Association of Neurological Surgeons, all rights reserved. Contents may not be reproduced, stored in a retrieval system, or transmitted in any form by any means without prior written permission of the publisher.

ADVERTISING SALES

Holly Baker, Ascend Media, (913) 344-1392. The *Bulletin's* rate card is available at www.AANS.org/bulletin.

COVER STORY

Protect Patients Now! National Campaign Enlists Public's Support for Tort Reform. Manda J. Seaver, **11**

NPHCA Helps Fund Protect Patients Now. **13**

Stand and Deliver. News conferences in four locations launch Protect Patients Now campaign, **14**

AANS Supports Protect Patients Now. Heather L. Monroe, **17**

FEATURES

Annual Meeting Tour de Force. Manda J. Seaver, **20**

Subspecialists Contemplate Their Future: Pain Management, Spinal Surgery. Regis Haid, MD, Oren Sagher, MD, **22**

Baseball, Small Town, Chopin Ballade, and Neurosurgery. Manda J. Seaver, **36**

Could COSS Be Canceled? William J. Powers, MD, William R. Clarke, PhD, Robert L. Grubb, MD, Harold P. Adams Jr., MD, **34**

DEPARTMENTS

Calendar of Neurosurgical Events 2004 AANS Annual Meeting May 1-6, **52**

Letters The medical liability crisis is on the minds of many: three perspectives, **24**

News.org AANS releases two new patient education brochures, **47**

Newsline *From the Hill*, *Neuro News*, Medical liability reform is defeated in the Senate, **4**

COLUMNS

Bookshelf Gary Vander Ark, MD, reviews the *Brave New World of Health*, **41**

Coding Corner Gregory J. Przybylski, MD, discusses coding issues faced by industry and physicians, **27**

CSNS Report Frederick Boop, MD, announces the LLDC, July 18-20, **7**

Governance Susan M. Eget reviews proposed changes to bylaws, **6**

Medicolegal Update W. Ben Blackett, MD, JD, introduces new AANS expert testimony rules, **33**

Membership AANS welcomes 768 new members, **30**

NREF Terri Bruce describes how financial contributions turn into medical miracles, **39**

NS Innovations William T. Couldwell, MD, introduces this new column, inaugurated with a review of total disc arthroplasty by Brian R. Subach, MD, **8**

Personal Perspective James R. Bean, MD, reviews the medical liability crisis, the *raison d'être* for the Protect Patients Now campaign, **10**

Practice Management Bill Hamilton, MBA, MHA, and Mark Lee, MD, describe management challenges in an academic setting, **43**

President's Message A. John Popp, MD, finds excellence in patient care at the nexus of technology and creativity, **2**

Residents' Forum Lawrence Chin, MD, offers a young neurosurgeon's perspective on medical liability, **29**

Risk Management Kathleen T. Craig describes benefits of the AANS Professional Liability Insurance Program, **49**

Timeline Michael Schulder, MD, has evidence showing which American president was also a medical liability lawyer, **19**



Technology and Creativity

At Their Nexus, Limitless Potential for Excellence in Patient Care

How can I best help this patient? For many neurosurgeons, this is the question that first brought us to neurosurgery. It is the question that accompanies us through long days, that intrudes on and occasionally haunts our dreams. At times, despite our best efforts, it is “the unanswered question,” echoing as plaintively as the trumpet in Charles Ives’ composition by that name.

For the most part and to an even greater extent than when I entered my neurosurgical residency, neurosurgeons today are able to help seriously ill patients live longer and enjoy a higher quality of life. Together with the increased body of knowledge engendered by continuing basic and clinical research in the neurological sciences, technological developments in large part have driven advances in patient care. Witness the use of deep brain stimulation for Parkinson’s disease, or, currently in trials, the use of artificial discs to treat degenerative disc disease, both therapies that hardly were envisioned 30 years ago.

Even while we appreciate the state-of-the-art tools we now have, there is no question that it is neither impressive technology nor any particular tool that defines the good doctor.

“Life is short, and art long; the crisis fleeting; experience perilous, and decision difficult,” Hippocrates noted around 400 BC. “The physician must not only be prepared to do what is right himself, but also to make the patient, the attendants, and externals cooperate.”

My own thoughts on this subject echo those expressed by neurosurgery pioneer Harvey Cushing in a 1925 address at Yale University: “Experience is no less fallacious today; judgment no less difficult ... the art, which is so long, demands experiences the laboratories cannot give: the

ability to properly elicit a telling clinical history, to satisfy the importunings of the family, to gain a patient’s confidence, to make him comfortable in mind and body regardless of what is wrong. These things are not by any means incompatible with the most intense scientific interest as to the cause, nature, and extent of his malady, but they demand judgment of quite a different order.”

A. John Popp, MD, is the 2003-2004 AANS president. He is Henry and Sally Schaffer Chair of Surgery at Albany Medical College in New York.



These sentiments notwithstanding, according to his medical notes Cushing thoroughly appreciated the “electrosurgical apparatus” without which he “doubt[ed] that enucleation [of a tumor] could ever have been possible,” as is reported in the premier issue of the *Journal of Neurosurgery: Pediatrics*, just released in February.

So it is that both technology and art are necessary facets of the neurosurgeon. But, one might ask, where does creativity come in? A hint is found in the following observation:

“People very rarely realize [that] the real happening in [medicine] comes out of the most enormous discipline because when you’ve disciplined yourself thoroughly you know what is possible. You let your imagination move because you know that by discipline and study and thought you’ve created the limits.”

These wise words actually are those not of a master of medicine, but of music:

namely, violinist Isaac Stern, whose preferred “tool,” incidentally, was a 1740 Guarnerius. He was speaking not of science, but of the arts; the liberty of substituting “medicine” for “the arts” in his statement is intended to illustrate the real similarity between these two spheres, which often are seen by many as dichotomous.

As neurosurgeons, our extensive education, exhaustive training, and challenging continuing medical education coalesce into superlative care for our patients. Occasionally, a particularly difficult challenge inspires a sublime moment of clarity that allows us to help a patient in a way that did not seem possible the moment before.

While our profession offers many rewards, I think that such a moment is what we, perhaps privately, hope for as medical students, what we strive for at the outset of our careers, and what sustains us once it has occurred.

So it is no mere coincidence that this column is inspired by both eminent physicians and a master violinist. The strong connection between them, as well as the connection between technological advances and better patient care, in turn inspired the theme of the 2004 AANS Annual Meeting, “Advancing Patient Care Through Technology and Creativity.” While the AANS Annual Meeting has represented the pinnacle of neurosurgical education during the years I have been an AANS member, this Annual Meeting, which concludes my term as the 73rd AANS president, is intended to exemplify the ideal of the complete neurosurgeon: one who embodies the education, training, talent and knowledge of technology for the purpose of advancing patient care.

I am confident that this 72nd AANS Annual Meeting will exceed our expecta-

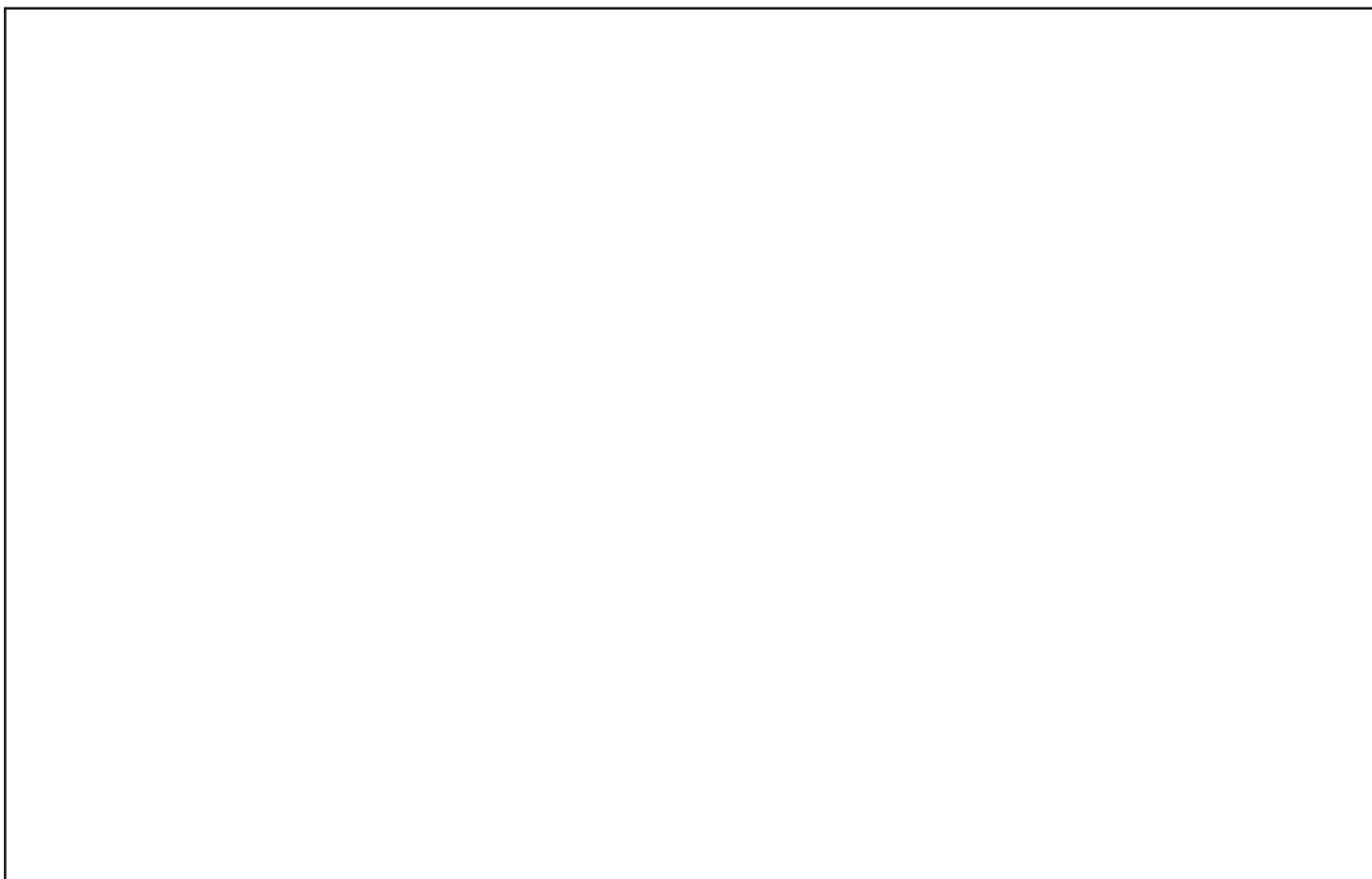
tions in every way. I sincerely thank all those who have had a hand in creating what promises to be a superlative scientific event, and I hope you will join me May 1-6 in Orlando.

This has been an extraordinary year for me personally and professionally, and I extend my wholehearted appreciation to all those who helped make it so. The foremost issue of my presidency has been to advance medical liability reform, and I think significant progress has been realized in that area through the Neurosurgeons to Preserve Health Care Access coalition and

“Like the 2004 AANS Annual Meeting, the Protect Patients Now campaign exemplifies the use of technology and creativity ... with the end goal of helping our patients.”

its work with Doctors for Medical Liability Reform to launch the ongoing nationwide Protect Patients Now public information campaign on Feb. 10. Like the 2004 AANS Annual Meeting, the campaign exemplifies the use of technology and creativity in reaching out to people, with the end goal of helping our patients.

How can I best help this patient? I submit that this question underlies everything we do as neurosurgeons. Despite the considerable pressures bearing upon our profession, it is this question that ignites within us the will to exceed even our own expectations. ■



NEWSLINE

News Members Trends Legislation

FROM THE HILL

MD AT CMS

On March 12 the Senate confirmed Mark McClellan as the new administrator of the Centers for Medicare and Medicaid Services. McClellan, a physician and economist, previously headed the U.S. Food and Drug Administration.

- **Medical Liability Reform Defeated in U.S. Senate** On April 7 the U.S. Senate failed for the third time in nine months to allow debate on medical liability reform legislation. Largely along party lines, the cloture vote on the motion to proceed with consideration of S. 2207, the “Pregnancy and Trauma Care Access Protection Act” failed by a vote of 49 to 48; three senators did not vote. Sixty votes were necessary to bring the bill to the floor for consideration. S. 2207, among other things, would have applied a \$250,000 cap on noneconomic damages in trauma, emergency, and obstetric and gynecological liability cases. The Senate is expected to bring additional medical liability reform measures to the floor for consideration later this year. Federal liability reform is the focus of the specialty physicians’ Protect Patients Now campaign and of the *Bulletin’s* cover story, page 11.
- **House Approves Medical Errors Bill** On March 12 the U.S. House of Representatives approved H.R. 663, which aims to reduce the number of healthcare errors. A main feature of the bill is a voluntary medical errors reporting system. The system would consist of private and public patient safety organizations, “PSOs,” that would be certified by the secretary of the U.S. Department of Health and Human Services. The PSOs would analyze data on medical mistakes, determine their causes, and provide the information to healthcare providers for their action to prevent future mistakes. The Bush administration has endorsed the House bill, and the Senate is expected to bring its version of the legislation to the floor this year.
- **CMS Defines Specialty Hospital Exceptions** The Centers for Medicare and Medicaid Services issued guidance on March 19 for exceptions to the specialty hospital moratorium enacted by Congress on Dec. 8, 2003. Under the moratorium, physicians may not refer patients to a specialty hospital in which they have ownership or investment interest, and the hospital may not bill Medicare or any other entity for services provided as a result of a prohibited referral. The moratorium applies to hospitals that are primarily or exclusively engaged in the care and treatment of patients who receive surgical procedures and who have orthopedic or cardiac conditions. Some types of hospitals are excluded from the moratorium: children’s hospitals, psychiatric hospitals, rehabilitation hospitals, long-term care hospitals, and cancer hospitals that are not paid under the inpatient hospital prospective payment system. Also excluded are “grandfathered” hospitals, those institutions that were in operation before or under development as of Nov. 18, 2003. CMS considers specialty hospitals that had Medicare provider agreements in effect on Nov. 18 to have been in operation. Information is available at www.cms.hhs.gov/manuals/pm_trans/r62otn.pdf.
- **Resident Match System Doesn’t Violate Antitrust Laws** A law signed on April 10 effectively ended an antitrust challenge to the National Resident Matching Program. Section 207 of Public Law 108-208, the “Pension Funding Equity Act of 2004,” declares that graduate medical matching programs do not violate federal or state antitrust laws. The stated purpose of the provision is to “ensure that those who sponsor, conduct or participate in such matching programs are not subjected to the burden and expense of defending against litigation that challenges such matching programs under the antitrust laws.” The lawsuit alleges that hospitals in the matching system fix wages below competitive levels. According to *Modern Physician*, Sherman Marek, plaintiffs’ attorney in the antitrust case, said an exemption for price-fixing will allow the suit to continue. However, Thomas Campbell, the matching program’s attorney, was quoted as saying, “This will be a death blow to the plaintiffs’ antitrust cast.”
- **CMS Modifies HIPAA Contingency Plan** On Feb. 27 the Centers for Medicare and Medicaid Services issued a notice of modification to the Health Insurance Portability and Accountability Act contingency plan. The modification, effective July 1, 2004, continues to allow noncompliant electronic claims, but payment of these claims will take an additional 13 days. Additional information is available at www.cms.hhs.gov/medlearn/matters/mmarticles/2004/MM2981.pdf.

For frequent updates to legislative news, see the Legislative Activities area of www.AANS.org.

NEURO NEWS

PRESIDENT APPOINTS NEUROSURGEON TO BIOETHICS COUNCIL

Benjamin Carson Sr., MD, director of pediatric neurosurgery at the Johns Hopkins Medical Institutions, was appointed to the President's Council on Bioethics in February for a two-year term expiring on Jan. 15, 2006. The Bioethics Council is charged with advising the president on bioethical issues that may emerge as a consequence of advances in biomedical science and technology.

- **End of CME Cycle: Dec. 31, 2004** For members of the American Association of Neurological Surgeons (AANS), Dec. 31, 2004, marks the end of the current cycle for continuing medical education credit. Active and Active Provisional members are required to document 60 neurosurgical credits between Jan. 1, 2002, and Dec. 31, 2004, to maintain membership. Detailed information is available on the CME Tracking page, www.AANS.org/education/cme.asp.
- **New Survey Reports Steepest Drop in On-Call Coverage for Neurosurgery** The specialty that most dramatically reduced participation in on-call coverage was neurosurgery, according to hospital administrators, with just 50 percent reporting neurosurgical coverage in 2004 compared with 90 percent in 2002. The February 2004 fax survey by the San Diego-based Governance Institute was in follow-up to a similar survey performed in 2002. Most respondents to the 2004 survey, 77 percent, said that the revisions to the regulations for the Emergency Treatment and Labor Act (EMTALA) issued by the Centers for Medicare and Medicaid Services in September have made no difference in relieving pressure for on-call coverage, while 13 percent of respondents said that the revisions actually made things worse. The EMTALA final rule published in the Federal Register (www.gpoaccess.gov/fr) on Sept. 9 clarifies, among other things, that neurosurgeons are not required to provide on-call services 24 hours per day, 7 days per week, 365 days per year, and that hospitals with flexibility to structure their call lists in a manner that reflects the limited number of neurosurgeons available to take call. Regarding stipends for on-call coverage, 54 percent of survey respondents said they do not provide or do not plan to provide stipends; of those that do, 46 percent pay a daily stipend with the average payment ranging from \$407 to \$878. The survey has restricted availability at www.governanceinstitute.com.
- **Physicians Turn to Entrepreneurialism** According to a report published in the March/April *Health Affairs*, "A common theme across markets was that harsh business realities had left physicians feeling financially beleaguered, forcing them to become more business oriented." Authors of the report, Financial Pressures Spur Physician Entrepreneurialism, used data from Round Four of the Community Tracking Study, including 270 interviews with healthcare leaders in 12 metropolitan areas from September 2002 to May 2003. The report concludes that financial pressures have influenced physicians to increase prices and service volume, while providing fewer of the services that are less lucrative. Because these practices could impact some patients' access to care, the report calls for policymakers to consider regulations and incentives to counteract this trend.
- **ACGME Clarifies Duty Hour Limits Misperceptions** In February the Accreditation Council for Graduate Medical Education denied the request of several surgical residency review committees for flexibility in resident work hour limits for chief surgical residents. The ACGME directed the duty hours subcommittee to study the implications of such a change on the quality of patient care, continuity of care, resident well-being, and the volume of procedures that surgical residents are expected to complete. As of January, less than 1 percent of the 7,900 ACGME-accredited programs had applied for the eight-hour weekly increase in duty hours—from 80 hours per week averaged over a four-week period to 88 hours. Of the 70 programs requesting the increase, 53 programs—30 of them in neurosurgery—were granted the increase, and 17 programs were denied. Additional information is available at www.acgme.org.

Send Neuro News briefs
to the *Bulletin*,
bulletin@AANS.org.

Proposed Changes to Bylaws Reviewed

Both 501(c)(6) and 501(c)(3) Entities Are Affected

Last summer voting members approved the establishment of a 501(c)(6) entity, which became the American Association of Neurological Surgeons, in addition to the existing 501(c)(3) entity, which became the American Association of Neurosurgeons. The bylaws for both entities can be found at www.AANS.org/about/membership under "Bylaws." The AANS Board of Directors now is proposing amendments that will affect the bylaws documents of both entities.

All proposed changes were mailed to voting AANS members on March 19, 2004. The bylaws amendments will be discussed at the annual Business Meeting, held jointly by the AANS and the American Association of Neurosurgeons during the 2004



bylaws changes to a percentage of membership, and allowing electronic voting.

Allied, International Resident/Fellow Categories Proposed

Two proposed membership categories would allow the AANS to accept as members many individuals who do not qualify for membership under any current membership category. The two new categories are Allied members, and International Residents/Fellows. The Allied category would allow inclusion of the surgical technicians who often assist in the operating room, similar to the nurses and physician assistants

tion signed by Active members. The proposed amendment would change the number of signatures required for such a petition from a flat number to 4 percent of Active members. In this way, the number of signatures required would always be relative to the number of voting members of AANS.

Electronic Voting to Reduce Cost, Increase Participation

Finally, the addition of Article XV to allow electronic voting has been proposed. The expense of balloting via regular mail is very high, with production and postage costs totaling between \$3,500 and \$20,000, depending on the amount of printed materials included. With the technology to handle electronic voting already operational through the security of the password-protected Web site, www.MyAANS.org, it is expected that electronic voting would yield considerable savings that would free funds for other programs. To ensure that no voting member is disenfranchised, plans have been developed to offer a paper ballot to members who do not have access to the Internet. When implemented, electronic voting is expected to increase voter participation while drastically reducing costs associated with paper balloting.

A complete copy of the "redlined" bylaws can be found on the AANS Web site, www.AANS.org/about/membership/voting.asp. ■

Susan M. Eget is AANS associate executive director-governance.

"Following the Annual Meeting, the AANS will conduct a paper ballot via regular mail on these amendments."

AANS Annual Meeting at 5:30 p.m. on Monday, May 3, at the Orange County Convention Center in Orlando, Fla. Following the Annual Meeting, the AANS will conduct a paper ballot via regular mail on these amendments.

Several of the proposed amendments are corrections or revisions to the bylaws. One change reformat and renames Article III to clarify the "Rights and Obligations" of Membership. Another amendment more explicitly spells out the requirement for all members of the AANS Board of Directors to be Active members. These changes *will not* affect the content of the bylaws.

The amendments that *will* affect content include: adding two membership classifications, clarifying the quorum requirement for board meetings, linking the number of petition signatures required for

who long have been accepted as Associate members of the AANS. The new International Resident/Fellow classification would encourage this group of young neurosurgeons to join AANS earlier in their careers, similar to their counterparts in North American training programs.

Quorum to Equal 50 Percent

Currently, the bylaws contain no specific language that defines what constitutes a "quorum" for business conducted by the Board of Directors. The proposed bylaws insertion would correct this omission and define quorum as "at least half of the sitting members of the Board."

4 Percent of Petitioners to Hold Sway

Bylaws amendments may be brought forward by the Board of Directors, or by a peti-

Learn to Influence Legislators

Attend the LLDC, July 18-20

Four years ago, during the chairmanship of Lyal Leibrock, MD, the Council of State Neurosurgical Societies organized the first Neurosurgical Leadership Development Conference (NLDC). The conference answered a need that had become apparent: In order for neurosurgery's interests to be heard at the federal level, neurosurgeons needed to focus on their most pressing political needs as well as education on the political process and how to influence change in national health policy.

Today, it is strikingly apparent that politically savvy neurosurgeons need to reach a critical mass in order to pass federal medical liability reform. The 2004 election cycle brings physicians closer than we have ever been in the history of medicine to bringing forward federal medical liability reform legislation. There are a number of key seats up for reelection this fall, and only a dozen or so votes need to change in order for us to have a chance at passing a reform bill.

NLDC Becomes LLDC

At this momentous time—and as we gear up for the third leadership conference, to be held July 18-20 in Washington, D.C.—Dr. Leibrock's foresight in organizing the first such event for neurosurgeons is recognized through the event's new name, the "Leibrock Leadership Development Conference," or LLDC. At the original NLDC, which I had the privilege of attending, the first day's schedule included didactic sessions led by Washington insiders and professional lobbyists to teach neurosurgeons about the relevant issues and how to approach a legislator, including what was proper etiquette and what behavior might be counterproductive. The well-conceived sessions were attended by the entire executive committees of the CSNS and the

Your participation is key to our success. Please plan to be there.

American Association of Neurological Surgeons (AANS), as well as by a number of executive committee members of the Congress of Neurological Surgeons. The following day, each of us met with our respective representatives or their health aides to personally present our concerns—and we were heard!

The format of this summer's conference generally will follow the same pattern, but with the Doctors for Medical Liability Reform's campaign, Protect Patients Now, in full force, the LLDC likewise will focus on the issue of medical liability reform. Our event will take place a mere two weeks before the Democratic National Convention begins, heightening the LLDC's impact and creating an optimal opportunity to deliver our message to Congress—particularly to those members whose seats are being challenged in the fall elections. Therefore, at least three representatives from each state's neurosurgical society are asked to attend this important event. Any neurosurgeon who has a personal relationship with a member of Congress also is urged to attend.

Dr. Leibrock has organized an outstanding itinerary for the weekend. The meeting will be held at the Washington Court Hotel, just two blocks from the Capitol and with easy access to the subway. I hope that many of you will choose to join us and plan to bring your families to our nation's capital city.

Your participation is key to our success. Please plan to be there. ■

Frederick Boop, MD, is chair of the Council of State Neurosurgical Societies.

LEIBROCK LEADERSHIP DEVELOPMENT CONFERENCE



July 18-20, 2004
The Washington Court Hotel
Washington, D.C.
To learn more about LLDC visit
www.AANS.org/legislative/nldc

Saturday, July 17

6:00 PM – 7:30 PM

Welcome Reception With Exhibitors

Sunday July 18

7:30 AM – 8:00 AM

Continental Breakfast With Exhibitors

8:00 AM – 5:30 PM

Practice Management Seminar
Topic Highlights

- Coding and Reimbursement Issues
- New Current Procedural Terminology Codes
- Medicare Overview
- Physician Ownership of Specialty Hospitals
- Medicolegal Strategies

6:00 PM – 7:30 PM

Reception With Exhibitors

Monday, July 19

7:30 AM – 8:00 AM

Continental Breakfast With Exhibitors

8:00 AM – 5:00 PM

Leibrock Leadership Development Conference (LLDC)
Topic Highlights

- Medical Liability Campaign Update
- Issues and Political Advocacy and/or November Election Predictions
- Congressional Staff Panel—Differing Views on How to Solve the Medical Liability Crisis
- Prospects for Federal Medical Liability Reform Legislation
- Hill Visit Preparation—Single Issue Focus: The Medical Liability Crisis
- Open Evening Family Night

Tuesday, July 20

8:00 AM – 9:00 AM

Capitol Hill Visit Rally Breakfast

9:00 AM – 12:00 PM

Congressional Visits

12:00 PM – 12:30 PM

Capitol Hill Visit Wrap-up

Note: Schedule is subject to change.

Total Disc Arthroplasty

The Wave of the Future

Introducing NS Innovations

This new column will explore neurosurgical innovations that are changing the way neurosurgeons practice, or are expected to do so in the future. The emphasis will be on applied science, including topics such as new instrumentation and novel applications of familiar technology, but discoveries in basic science that have the potential to impact neurosurgery and aid our patients will be considered as well.

I invite you to send your ideas for this column to me, and I look forward to your participation.

William T. Couldwell, MD
NS Innovations editor
william.couldwell@hsc.utah.edu

Approximately 85 percent of Americans will experience a significant episode of neck or back pain at least once during their lifetimes. For many, transient pain may lead to a lifetime of discomfort with associated loss of productivity and functional capacity. One of the major causes of such spinal pain is degeneration of the intervertebral discs. Thought to be genetic in some cases or acquired through activity, obesity, or tobacco use in others, the diagnosis often is difficult to make. Symptomatic degeneration may be both difficult to identify and to treat, often entailing repetitive examinations and provocative testing such as discography. The most promising surgical option currently in development to combat the pain associated with degenerative disc disease is artificial disc technology for both the cervical and lumbar spine.

Arthroplasty for cervical and lumbar degenerative disc disease has reached the



The Maverick disc, ready for insertion.

point of clinical trials in the United States and is still considered investigational by the U.S. Food and Drug Administration. Similar to the now common and successful replacement of worn-out hip and knee joints with combination metal-and-plastic artificial joints, the new spinal arthroplasty techniques replace damaged, painful, and incompetent intervertebral discs. The prosthesis is designed to restore normal disc height, lordosis, and function. Spinal disc replacement was first attempted 40 years ago when a surgeon implanted stainless steel balls into the disc spaces of more than 100 patients. Although this pioneering effort seems crude, in the past decade significant research has explored the degenerative processes of the spine, spinal biomechanics and biomaterials.

Using arthroplasty techniques, the loss of height and lordosis associated with desiccation and microinstability resulting from the loss of annular tension can be corrected without destroying the function of the joint. Arthroplasty compares favorably with surgical fusion, a treatment that purposely impairs normal motion by disrupting articular surfaces and by instrumenting across previously mobile segments. Although fusion may be considered the standard of care in many

instances, a number of problems are generated by such procedures. The loss of mobility from fusion of long segments may result in stiffness and loss of functional capacity. Further, the transfer of stress from the fused areas to the bordering nonfused areas may result in a phenomenon known as adjacent segment degeneration in up to 30 percent of patients in the decade following surgery. Arthroplasty alternatives are designed to preserve motion, minimize the risk of facet damage, and limit associated adjacent segment breakdown. Additionally, arthroplasty has the capability of restoring motion to degenerative segments that essentially have lost normal function.

In many patients with multiple levels of mild degenerative disease, surgery to correct all degenerative segments often would be too extensive and disabling. Percutaneous injection techniques, such as facet blocks or discography, may allow identification of a specific pain generator. Ideally such testing would isolate a problematic segment for arthroplasty, or possibly allow a less aggressive intervention in the patient with degenerative pain syndrome who otherwise would have required more extensive surgery.

Lumbar Arthroplasty

Arthroplasty in the lumbar spine represents a significant challenge secondary to both the mechanical strain placed upon the prosthesis and the wide range of normal spinal motion. The device must be strong enough to support axial loading and maintain normal intervertebral height. It must be flexible enough to allow for the rotation, flexion, extension, lateral bending, and translation expected of a normal disc. The prosthesis generally relies upon intact facet joints and ligaments to resist unstable motion. The device must be easily cus-

tomized to a patient's size, degree of spinal lordosis, and normal disc space height. Like a natural disc, the artificial disc may need to act as a shock absorber, however this function has been difficult to reproduce using synthetic materials. Finally, the artificial disc must be extremely durable. The mean age of a patient requiring a lumbar disc replacement is approximately 35 years. Given the expectation that the average 35-year old-patient will live another 40 to 50 years, the disc must last at least that long to avoid the need for a challenging revision surgery. Moreover, it has been estimated that every year an individual takes more than 2 million steps and bends 125,000 times. Over a 50-year life span, such basic activities may translate into more than 100 million motion cycles.

The choice of biomaterial used to manufacture the prosthesis is as important as the overall design of the device. Unfortunately, there seems to be no consensus among surgeons and device designers as to the best shape or most appropriate material. The material must be safe for implantation into the human body as well as relatively inert to avoid inciting a destructive inflammatory response at the interface between the vertebral body and the device. Ideally, it should be radiolucent or allow some consistent means of identification to monitor its position and relationship to the bordering endplates. It should not produce wear debris, which may cause injury or scar tissue formation around neighboring neural structures that may ultimately lead to premature failure of the device.

Types of Lumbar Prostheses

Currently, there are four different subtypes of artificial disc undergoing evaluation. These basic subtypes include composite,

hydraulic, elastic, and mechanical discs.

Composite Discs The most widely implanted disc to date is a composite disc called the Link SB Charite disc, manufactured by Waldemar Link GmbH, Hamburg, Germany. This device is made of a polyethylene spacer and two separate metal endplates and comes in different sizes. It also has a ring around it to make it visible on an X-ray. The device has been implanted in more than 1,000 European patients.

The Prodisc, manufactured by Spine Solutions, New York, N.Y., is a three-piece construct. The superior and inferior pieces are made of rough titanium designed to encourage bone growth from the vertebral body into the prosthesis. The central nuclear part is made of ultra high molecular weight polyethylene with an extremely low coefficient of friction, which theoretically allows normal spinal motion.

Hydraulic Discs Hydraulic implants have a gel-like core covered with a tightly woven polyethylene "jacket." Before implantation, the pellet-shaped hydrogel core is compressed and dehydrated to its minimum size. Once it is implanted, the outer woven covering allows fluid to pass through to the core. The hydrophilic core absorbs fluid and expands. Most of the expansion takes place in the first 24 hours after surgery, although it takes approximately four to five days for the hydrogel core to reach its maximum size. Placement of two hydraulic implants within the disc space generally provides the lift that is necessary to restore and maintain disc space height in most patients.

Elastic Discs Elastic artificial discs such as the Acroflex disc, made by Johnson and Johnson/Depuy Acromed, Raynham, Mass., are made of a rubber core bonded to two titanium endplates. The results of testing have been somewhat mixed. Recently, a

small series of patients who received this type of artificial disc were evaluated after a minimum of three years. Their preliminary outcomes were graded as follows: two, excellent; one, good; one, fair; and two, poor. One of the elastic discs in a patient who experienced a poor result developed a tear in the rubber. Since that trial, a second-generation elastic disc made of silicone rather than rubber has been approved for more extensive testing.

Mechanical Discs Several "pivot" or "ball" artificial discs have been developed for the lumbar spine. One device, made of metal-hinged plates with an interposed spring, has been tested on sheep with good results. Another device has metal endplates in a ball-and-socket design with two vertical stabilizing wings. This device, the Maverick by Medtronic Sofamor Danek, USA, Inc., Memphis, Tenn., currently is being tested in a randomized U.S. trial. Preliminary results appear to be promising.

Look to the Future

Although this article is simply an overview, clearly arthroplasty for spinal disc disease has revolutionized the thinking about the remedies for the degenerative process. Spinal disc replacement not only is possible, but it also holds the potential of providing relief to millions of back pain sufferers. The development of artificial disc technology still has many challenges, but the results to this point seem promising. ■

Brian R. Subach, MD, is a neurosurgeon at The Virginia Spine Institute, Reston, Va.

This article is adapted from the original at www.spineuniverse.com, and it appears with the permission of SpineUniverse.

You Have a Part to Play

Neurosurgery's Medical Liability Reform Campaign

Thirty years ago a medical liability crisis swept across the country. Out of that crisis emerged a few states—California, Louisiana, New Mexico, Indiana, and Wisconsin—which enacted tort reform legislation that attacked the root causes of the crisis. A second crisis arose 20 years ago, inspiring more states to enact reforms, but few of these states enacted comprehensive legislation. Because of conflicts with the state constitutions, some state supreme courts have overturned many of the reforms that were enacted.

Medicine is now in the third year of a medical liability crisis more far-reaching than any before. In the last two years in an attempt to prevent meltdown of medical services, several states have passed tort reforms, including Texas, Florida, Ohio, West Virginia, Nevada, and Mississippi, with variable effectiveness. Many states face seemingly insurmountable political and state constitutional barriers to reform.

Neurosurgery faces a war of attrition. Preliminary results from the 2004 survey by the Council of State Neurosurgical Societies, American Association of Neurological Surgeons, and Congress of Neurological Surgeons, indicate that, if professional liability premiums continue rising at the current rate, nearly 73 percent of neurosurgeons will relocate, become salary-based physicians or retire from practice. Fifty-six percent said they were considering cutting or reducing high-risk services such as pediatric cases, and 55 percent said they have altered their treatment decisions and consciously practice defensive medicine. When these survey results are compared with a similar survey performed in 2002, it becomes clear that the crisis has continued to worsen. As the casualties mount, the pressure for action to stop the hemorrhage grows.

This is the most serious peril most neurosurgeons have faced in their careers. All other professional, scientific, or practice problems pale in comparison. Research funding, restricted resident work hours, EMTALA regulations, managed care restrictions, and Medicare fee cuts all pose problems for physicians, but look trivial next to the sinister threat posed by loss of liability coverage or bankruptcy by a massive judgment that exceeds coverage limits. Nothing else so threatens neurosurgeons with forfeiture of their very livelihood,

James R. Bean, MD,
is editor of
the *Bulletin* and chair
of the AANS/CNS
Washington Committee.
He is in private practice
in Lexington, Ky.



wasting years of preparation and experience, and punching large holes in our nation's healthcare network. The country's public protector, its legal system, has become a public menace.

Through Doctors for Medical Liability Reform, DMLR, neurosurgery has joined forces with other high-risk specialties, each suffering its own version of the crisis, to take the story to the public, to expose to public scrutiny the damage done by the crisis, and to build public demand for reform. For the first time, all neurosurgeons must discard the shell of professional isolation and venture into the world of public debate and political action. We must expose ourselves to public scrutiny, refute opposing arguments that deny a crisis, overcome inertia, name the root causes of the crisis—rapidly escalating

awards and growing lawsuit frequency—and insist on effective federal medical liability reform, which is both possible and necessary to bring uniformity and rationality to the patchwork state medical liability tort rules nationwide.

Doctors for Medical Liability Reform (DMLR) represents 230,000 specialists, the members of 11 supporting medical specialty organizations, formed for the explicit purpose of promoting the passage of federal medical liability reform, and more specifically, ensuring passage in the U.S. Senate, where filibuster has stopped all action on a comprehensive reform bill since July 2003.

As detailed in the cover story, the DMLR began its public information campaign, Protect Patients Now, in February 2004 with televised 30-minute newsmagazine programs exposing the consequences of the crisis in North Carolina and Washington. More state campaigns will follow. Since public knowledge drives demand and demand drives reform, the story of the actual and growing loss of access to specialty healthcare must be told in the states where it is happening, to focus public attention, overcome passivity, and build active demand for federal legislative action.

The campaign will be lengthy and expensive, but it nevertheless is necessary. It requires the active participation of every neurosurgeon. Each has received an invoice for a personal financial contribution to support the campaign until federal reform is accomplished and the threat to neurosurgery, all medical practice, and the U. S. healthcare system, is eliminated.

The Fall 2003 issue of the *Bulletin* featured the skyrocketing liability crisis and the urgency for planning an active, innovative response. This Spring 2004 issue reports the bold, always active progress made toward federal medical liability reform. The aim is to give each neurosurgeon the information and inspiration to do his or her part and ensure that the goals of the campaign are achieved. ■

PROTECT PATIENTS NOW!

National Campaign Enlists Public's Support for Tort Reform

Manda J. Seaver

"As physicians we can no longer stand by and watch as our patients are placed at such an unacceptable level of risk. We have a duty to them—and to the profession we have chosen as our life's work—to lead a medical liability reform movement that will, finally, protect patients now."

With this emphatic call to action Gail Rosseau, MD, alerted media across the United States to the launch of Protect Patients Now, a multimedia public information campaign for federal medical liability reform that was announced Feb. 10 from the platform of the National Press Club in our nation's capital. The campaign features 30-minute television newsmagazines and full-page newspaper advertisements, as well as an interactive Web site, www.protectpatientsnow.org. The news conference, broadcast live on the Web, was complemented by satellite press conferences held in two of the 19 medical liability crisis states, North Carolina and Washington.

Dr. Rosseau, a national spokesperson for this multimillion-dollar public information campaign, explained that the aim of Protect Patients Now is to enlist the public's support for federal legislation that will stem the tide of relentlessly rising professional liability insurance premiums, the most notorious symbol of the medical liability crisis. She emphasized that to be effective, comprehensive federal medical liability reform legislation must include a cap on noneconomic damages because that is what has been proven to be effective in states considered stable: California, Colorado, Indiana, Louisiana, New Mexico and Wisconsin.

"The exorbitant liability premiums are just one manifestation of the ill effects of this medical liability crisis," stated A. John Popp, MD, president of the American Association of Neurological Surgeons (AANS). "Federal medical liability reform tops the AANS agenda because so many of our colleagues across the country have been forced to alter, retire, or close their practices, leaving patients in some areas of our country far from neurosurgical care; it simply is an untenable situation that in the United States



good doctors with extensive skill and training in neurosurgery are rendered powerless

to care for people who are in need of specialized care."

AANS President-Elect Robert A. Ratcheson, MD, agreed. "While there are many challenges facing neurosurgery, federal medical liability reform must remain at the forefront of the AANS agenda until success is achieved," he said. "The Protect Patients Now campaign is an essential element in the overall strategy for attaining effective reform."

Protect Patients Now is the brainchild of Doctors for Medical Liability Reform, a 230,000-member strong coalition of specialty physicians, a group that particularly has experienced the negative effects of the medical liability crisis. The DMLR's sole purpose is to conduct national public education and grassroots initiatives leading to passage of comprehensive federal medical liability reform legislation that includes a cap on noneconomic damages. Neurosurgery is well represented in the DMLR through Neurosurgeons to Preserve Health Care Access, a 501(c)(4) advocacy organization through which the American Association of Neurological Surgeons (AANS) and the Congress of Neurological Surgeons speak with one voice on the subject of medical liability reform.

The NPHCA is one of 11 specialty groups that comprise the DMLR. Joining the NPHCA in this effort are the: American Association of Orthopaedic Surgeons, American College of Emergency Physicians, Society of Thoracic Surgeons, American College of Surgeons Professional Association, American College of Obstetricians and Gynecologists, American College of Cardiology, American Academy of Dermatology, National Association of Spine Specialists, American Urological Association, and the American Society of Plastic Surgeons.

Together these groups are contributing more than \$10 million

Continued on page 11.

Continued from page 10

to fund the Protect Patients Now campaign. Representatives from nearly all of these groups served on the DMLR panel at the Feb. 10 campaign launch, projecting a unified voice calling for federal medical liability reform.

Stewart B. Dunsker, MD, has accepted the dual roles of NPHCA president and DMLR chair. More than 30 years of neurosurgical practice serving in leadership roles, including his tenure as 2000-2001 AANS president and on the AANS/CNS Washington Committee, helped prepare Dr. Dunsker to lead a determined, fact-based effort for tort reform.

In his remarks to the crowd gathered at the National Press Club, Dr. Dunsker promised that the Protect Patients Now campaign would feature “moving personal accounts of how a medical liability system gone awry has affected the practices and lives of each of the physicians here today.” He also introduced a sampling of the “cold, hard and extremely troubling facts” behind the personal stories, citing a 2003 U.S. Department of Health and Human Services report that showed:

- 76 percent of physicians surveyed said medical liability litigation has hurt their ability to provide quality care to patients.
- 33 percent avoided practicing a certain specialty because they feared it would subject them to greater liability exposure.
- Specialists in 18 states without caps on noneconomic damages experienced increases in liability insurance premiums of 39 percent between 2000 and 2001 and another 51 percent in 2003.

Campaign Components

The DMLR crafted Protect Patients Now with the help of a national communications firm to optimize impact and use of available resources and to aid in the quest to educate and inform the public about the destructive effects of the medical liability crisis on patients' access to healthcare. The Protect Patients Now strategy is to conduct a national campaign focusing in particular on those states that are in dire need of medical liability reform.

One such state is Washington, where an exodus of 500 doctors in the last few years not only has jeopardized many patients' access to care, but also has negatively impacted the economy. In addition to initial launch of the campaign in Washington and North Carolina, the DMLR also is targeting South Carolina, Georgia, Florida, Illinois, Nevada and Pennsylvania.

The campaign is reaching out to people primarily through television newsmagazines and newspaper advertisements that are complemented by an information intensive, interactive Web site.

“Real” Reality TV

At the core of the Protect Patients Now campaign are the 30-minute television newsmagazines that reveal real doctors and real patients grappling with the life-altering manifestations of the medical liability crisis. The unscripted interviews, which Dr. Rosseau characterized as “tragic, but powerful,” provide compelling evidence of the need for change.

The 30-minute newsmagazine format was selected to allow enough time for the complete picture of the medical liability crisis to be developed and told in their own words by a variety of specialty doctors and their patients. Their potent personal stories are complemented by information explaining the causes underlying the crisis.

Neurosurgeons and their patients are featured in several newsmagazine segments. David Pagnanelli, MD, is featured in the North Carolina segment called “On the Move—Again.”

The segment introduces Dr. Pagnanelli as he is house hunting in Oklahoma and goes on to explain why he is moving his practice and his family for the second time in two years. After 18 years as chief of neurosurgery at a hospital in Pennsylvania, escalating professional liability premiums forced him to relocate. “The year that I left Pennsylvania, more than 1,000 physicians left the state,” he explains. Then, after less than two years in Hendersonville, N.C., skyrocketing liability insurance premiums forced him to relocate once again, this time to Oklahoma.

“Basically I’m sick by it,” he says. He notes that in one-and-a-half years his premium went up to \$194,000—without any claims. Of his move, which leaves Hendersonville without a neurosurgeon, he says, “I have no choice ... I don’t know what else to do.”

One of his patients, Dan Pace, shares his response to Dr.

Pagnanelli's predicament: "[He] deserves to be able to practice what he loves to do and that is creating miracles of healing. We will grieve and we will hold our politicians particularly responsible because they could have done something, but they haven't."

In the segment called "Don't Get Sick in Washington," Christopher Smythies, MD, describes the consequences when, without warning, a professional liability insurance carrier dropped his 10-neurosurgeon group in the Puget Sound area.

"My jaw fell and hit floor because I knew what it meant—without liability insurance as a physician you can't practice," he explains. "We couldn't schedule any patients for surgery, and in fact we stopped seeing patients altogether, so there was a scramble for these folks to find someone else to take care of them."

One of the group's patients, Kim Reading, describes her reaction as the crisis impacted her own treatment: "I was desperate, absolutely desperate, yet there was nowhere to go, there was nobody to turn to," she says. "When a doctor can't live up to his oath to help patients because the insurance company says as of this date you no longer have coverage ... you wouldn't think it could happen in America."

The DMLR intends for viewers, like the doctors and patients who participated in the newsmagazines, to take the campaign's message to heart. During broadcast of the newsmagazines, viewers are asked to contact their legislators and to support federal medical liability reform with caps on noneconomic damages. Also provided is the address of the campaign Web site, www.protectpatientsnow.org, which enables viewers to find additional information and respond to the campaign's call to action.

Print Ads Pack a Punch

To reinforce the Protect Patients Now message, two full-page newspaper advertisements were readied for campaign launch. Both have appeared in national publications including *The Wall Street Journal*, *USA Today*, and *The Washington Post*.

One advertisement, headlined "Senator, Heal Thyself," introduces the DMLR and hits the main points explaining why federal medical liability reform legislation is necessary.

"Doctors and politics normally don't mix," the ad reads. "We're healers, not fighters. We focus on patients, not politicians. But we can no longer idly watch patients lose access to healthcare because their doctors can't afford skyrocketing insurance premiums. Not while the politicians who could solve the problem choose to ignore it."

The other advertisement focuses on the economic impact of the medical liability crisis, not only on the healthcare system, but also on businesses and the economy in general. The headline reads: "If You're Considering More Business in Washington State: Before You Move In, Look Who's Moving Out." It shows a procession of healthcare professionals walking one way, giving a man holding a briefcase reason to pause in his progress toward "Washington State."

A full-page advertisement also was created and placed in the *Seattle Post-Intelligencer* to counter an editorial that was printed in the

NPHCA Helps Fund Protect Patients Now

The national Protect Patients Now campaign is funded by Doctors for Medical Liability Reform, which itself is a coalition of 11 specialty societies.

Neurosurgery participates in the DMLR through Neurosurgeons to Preserve Health Care Access, the advocacy organization of the American Association of Neurological Surgeons (AANS) and the Congress of Neurological Surgeons (CNS).

NPHCA is a tax-exempt social welfare advocacy organization, organized under 501(c)(4) of the Internal Revenue Code, that is dedicated to preserving and improve patients' access to timely and consistent quality neurosurgical healthcare.

The NPHCA Board of Directors is Stewart B. Dunsker, MD, president; Stan Pelofsky, MD, vice president; James R. Bean, MD, secretary-treasurer; A. John Popp, MD; Nelson M. Oyesiku, MD; and Vincent Traynelis, MD.

To fully fund the Protect Patients Now campaign, the NPHCA contribution to the DMLR is \$3 million. In order to meet its obligation, the NPHCA has asked each neurosurgeon to contribute \$1,000 per year for three years or until legislation is passed.

Additional information about the NPHCA is available from the Web site, www.neuros2preservehealthcare.org, or from Katie Orrico, director of the NPHCA, (202) 628-2883.



newspaper on Feb. 20. Both the advertisement and the press release that accompanied it are headlined, "Since You Can't Trust the *Seattle Post-Intelligencer*, Who Can You Trust? Your Doctors." The ad copy counters point-by-point several statements made in the editorial.

In the press release, Cynthia Wolfe, MD, director of emergency services and chief of medicine at Capital Medical Center Olympia commented, "Emergency doctors are used to chaos, stress and

Continued on page 16

Stand and Deliver



At media events in four locations on Feb. 10, neurosurgeons and their colleagues in other specialties stood up for themselves and for their patients to focus the media's attention on Protect Patients Now, the public information campaign for federal medical liability reform produced by the specialty coalition, Doctors for Medical Liability Reform.

The message they delivered: *"We have left our surgical theaters and delivery rooms for one reason: to ensure that other doctors will not have to leave theirs forever."*



National Press Club— Washington, D.C.

"Clearly this crisis calls for an organization with both the will and the way to speak out for Americans who are deprived of access to critically needed health-care. We stand before you as representatives of that organization, ready to wage what will surely be a lengthy bat-

tle, but convinced that we and our patients will ultimately prevail, if only because it is the only outcome that is tolerable."

—Gail Rosseau, MD, Protect Patients Now campaign spokesperson

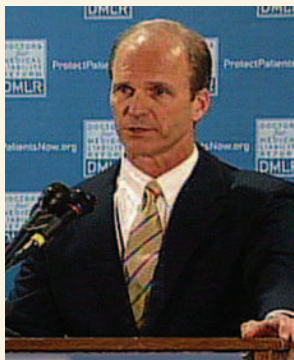


National Press Club— Washington, D.C.

"There is only one beneficiary to the current system: the guy who walks away with 30 to 50 percent of the award, plus an additional percentage to cover expenses. That's not the doctor. And it's certainly not the patient. Yet there are those who continue to insist that there is no cause and

effect between the increase in medical liability litigation and the subsequent rise in medical liability insurance rates that are driving doctors out of business and bankrupting America's healthcare system."

—Stewart B. Dunsker, MD, chair of Doctors for Medical Liability Reform and president of Neurosurgeons to Preserve Health Care Access



Press Conference— Raleigh, N.C.

“Like most Americans, we believe that a wrongful or neglectful medical event should result in fair awards. It’s the unreasonable, lottery-style awards for pain and suffering—enriching personal injury attorneys with millions of dollars—that are forcing good doctors to give up the

work they love and putting patients at risk of having no access to healthcare.”

—James R. Bean, MD, secretary-treasurer of Neurosurgeons to Preserve Health Care Access



Press Conference— Charlotte, N.C.

“In North Carolina, more than 3,000 doctors and hospitals are scrambling to get new coverage and, if they can find it, pay two to three times more than a year ago. Or leave. The citizens of North Carolina cannot afford to lose any more of their doctors; this is why we are

here—to tell your story and demand reform.”

—Craig Van Der Veer, MD, a neurosurgeon in private practice in Charlotte, N.C.



Press Conference— Seattle, Wash.

“This time there were nine other neurosurgeons in the same boat and that meant a lot more patients were going to be adversely affected. Literally hundreds of new patients—some of them in a great deal of pain—had to be turned away

from our offices all over town. No operations were scheduled. At different times over a period of three weeks the emergency rooms at Northwest, Swedish, Ballard, Providence, Stevens, and Valley were intermittently without neurosurgical coverage, and on one fateful weekend, none of them had any neurosurgical coverage.”

—Christopher Smythies, MD, describes to reporters the ripple effect resulting from one frivolous lawsuit filed against him for which he eventually was exonerated completely. He said that, due in large part to the \$550,000 in legal fees paid for his defense, his entire group of 10 neurosurgeons lost liability insurance coverage for six weeks, even though the group’s claims history was a good one.



“Saying ‘no’ to treating patients is not natural for doctors. It goes against every moral and professional fiber in us. I had to consider moving my family to another state. This all took an incredible toll on me and on my family and patients.”

—Steve Klein, MD, pictured here in the “Don’t Get Sick in Washington” newsmagazine, told reporters of his reaction when his entire 10-neurosurgeon group lost its liability insurance coverage.

“People are dying because of politics. Not because we don’t have the technology, not because we don’t have the doctors, but because astronomical medical liability insurance rates are taking doctors away from our patients at an alarming rate.”

Continued from page 13

panic, but I am not used to deception, either intentional or inadvertent, and the *Post-Intelligencer* is not telling the truth. As a doctor, I cannot stand by while my patients are being deceived about the critical need for federal medical liability reform.”

A fourth advertisement was unveiled April 6 in *The Washington Post* and *Roll-Call*. The headline asks, “What Do Senate Democrats Have Against Patients? The answer, ‘Trial Lawyers, That’s What.’” Release of the ad coincided with the April 7 cloture vote on S. 2207, the “Pregnancy and Trauma Care Access Protection Act.”

Web Site Provides Information, Spurs Action

The entire Protect Patients Now campaign can be viewed online at www.protectpatientsnow.org. The site serves physicians, patients and media as a repository for the print advertisements and for the campaign’s newsmagazines, which can be sampled by clicking on an image, or downloaded and viewed in their entirety. At press time the complete 30-minute Washington and North Carolina newsmagazines and additional video clips from several other states were posted; new stories will be added as they become available.

The site contains a wealth of explanatory and breaking information about the DMLR and the medical liability crisis. While the campaign targets medical liability reform legislation that protects the entire country, a state-by-state breakdown that shows the level of crisis and provides an overview of the local legislative landscape is available. Also, the press kit for the Feb. 10 news conference is available online, as are up-to-date news releases. For example, the March 29 news release announcing that Richard Burr, an N.C. candidate for U.S. Senate, signed the Protect Patients Now pledge can be found at www.protectpatientsnow.org/958.html.

The pledge, states, in part, that “as a U.S. senator or candidate for U.S. Senate with the public interest at heart, I ... pledge that I will unequivocally support medical liability reform in the United States Senate seeking passage of federal legislation that would include an effective limit on noneconomic damages....” The pledge itself is online at www.protectpatientsnow.org.

In addition to the up-to-date news and information found on the site, the interactive site allows doctors and the public to share their medical liability stories and thoughts using an interactive form. They also can sign up to receive breaking information alerts so they won’t miss important votes or opportunities to participate in grassroots effort that facilitate reform legislation.

One Impression, a World of Impact

Just one month after the launch of Protect Patients Now, a media analysis showed that the campaign had reached more than 11.5 million people.

The newsmagazines alone generated nearly 5 million “impressions,” an important distinction because impressions are defined as the portion of viewership over the age of 18—that is, voting age.

In addition, the “paid” media—the campaign’s newsmagazines and advertisements—generated “free” coverage in the print and broadcast media that totaled approximately one-fifth of the campaign’s outreach. In addition to Washington and North Carolina, media coverage was documented in Florida, Missouri, Indiana, Washington, D.C., and Kentucky.

Other campaign efforts are directed toward coalition building, which focuses on outreach and events designed to motivate doctors to become active in the campaign and enlist their patients’ support. The campaign also continues to make additional contacts with the media, piquing reporters’ interest in the Protect Patients Now story and aiding them with information and spokespeople who can provide commentary.

The Message Hits Prime Time

A prime time special on the medical liability crisis aired on Fox News in March and again in April. The hour-long program called “Breaking Point: Why Doctors Quit,” prominently featured neurosurgery. After viewing it, Dr. Dunsker noted that one of the special’s strongest segments focused on a child with a head injury who had to be evacuated to another hospital hours away because a neurosurgeon wasn’t available for treatment.

“This life-threatening scenario is illustrative of what has to be the most frustrating and, frankly, heart-rending aspects of the medical liability crisis,” he said. “The crisis is not just about insurance premiums, it is about life and death. It is about physicians who have had to cease performing high-risk procedures—like intracranial surgery—and stop operating on high-risk patients—like children—because of the high liability risk. Politicians have a duty to pass federal medical liability reform legislation that gets doctors back to helping patients in the emergency rooms and in the operating rooms.”

The medical liability crisis has even seeped into prime time drama. On March 14 an episode of “The Practice” featured a story line in which an obstetrician and his hospital are sued for \$3.2 million after a woman died during childbirth. In a striking demonstration of art imitating life, the obstetrician offers \$800,000 of his personal funds—“all the money I have”—to settle the case. He explains that if he has a verdict against him, he will lose his liability insurance and be unable to practice. He also testifies that he was the only obstetrician available to care for the patient because the medical liability crisis had forced the others out of practice.

Final Impact

While the Protect Patients Now message is percolating in the media, the question on everyone’s mind is whether—or when—the DMLR’s goal of enacting federal medical liability reform with a cap on noneconomic damages will occur.

The most recent legislative action was on April 7, when the U.S. Senate failed to allow debate on medical liability reform legislation.

Continued from page 18

AANS Supports Protect Patients Now

HEATHER L. MONROE

Neurosurgery remains one of the leading medical specialties devastated by the medical liability crisis. To help combat the damaging effects of this crisis, the American Association of Neurological Surgeons has pledged its unequivocal support for federal medical liability reform and the Protect Patients Now campaign that will help achieve it.

"We must work together to tackle a legislative issue of this complexity in the national arena," stated AANS President A. John Popp, MD. "It must be reiterated that there is no greater threat to neurosurgery than the medical liability crisis."

AANS Fights for Reform Through NPHCA

To represent both the AANS and the Congress of Neurological Surgeons in the fight for federal medical liability reform, Neurosurgeons to Preserve Health Care Access was created.

The NPHCA, organized under 501(c)(4) of the Internal Revenue Code, is a tax-exempt social welfare advocacy organization dedicated to promoting sound public policies that preserve patient access to healthcare. Additional information about NPHCA is available at www.neuros2preserve.org.

The AANS' support of the Protect Patients Now campaign is demonstrated by a variety of efforts that support the NPHCA, including:

- involvement of AANS leadership on the NPHCA Board of Directors;
- staffing and coordinating the NPHCA booth at the AANS Annual Meeting and at AANS/CNS section meetings; and
- managing financial aspects of NPHCA, including AANS and CNS member contributions toward NPHCA's \$3 million commitment to the Protect Patients Now campaign.

In February 2004 the AANS undertook the NPHCA's mail campaign to all AANS and CNS members requesting 2004 contributions. The cover letter from AANS President A. John Popp, MD, and CNS President Vincent Traynelis, MD, announced the launch of Protect Patients Now and highlighted key campaign information. In addition to background information on the NPHCA, the mailing featured an invoice requesting a contribution of at least \$1,000 for 2004. It also included a compact disc of the television news-magazines airing in Washington and North Carolina.

A press release, "The AANS Fully Supports DMLR's 'Protect Patients Now' Initiative, the Specialty Physicians Public Information Campaign Demonstrating the Urgent Need for Federal Medical Liability Reform," was distributed in mid-February to hundreds of medical reporters over the wire announcing AANS' support of DMLR's Protect Patients Now campaign. The press release is available at www.neurosurgerytoday.org/media/DMLRFeb04FINAL.pdf.

In addition, the newly revised AANS Web sites, www.AANS.org and www.NeurosurgeryToday.org each provide direct links for AANS members, the general public, other physicians, etc. to the offi-



cial NPHCA site. In addition, regular updates on progress toward ending the medical liability crisis are highlighted in the bi-weekly member e-mail newsletter, *AANS E-News*. The medical liability crisis was also a topic of extreme interest for readers of the Fall 2003 *Bulletin*. In-depth articles about the crisis and its effect on neurosurgery is available in the online Library at www.AANS.org, article ID 13303.

AANS Produces Medical Liability Reform Brochure for Patients

Will There Be a Doctor to Treat You When You Need One? is the question posed by a new brochure directed toward patients. The brochures,

designed to complement the Protect Patients Now campaign and help doctors extend the campaign message at the grassroots level, encourage patients and their families are to learn the facts about medical liability reform from the AANS.

Just published in April, the attractive, two-color brochures will be mailed this summer to all Active and Active Provisional members of the AANS. Each member will receive 100 complimentary brochures that they can put to use locally in their offices and at medical events. The brochure also will be available from the AANS' information portal for the public, www.NeurosurgeryToday.org. While additional brochures are not expected to be available this year, doctors are invited to print additional copies as needed from the Web site.

Media Training Helps Deliver the Message

The AANS also is offering a media training breakfast seminar, from 7:30 a.m. to 9:30 a.m. on Monday, May 3, during the AANS Annual Meeting in Orlando. This seminar is designed to help neurosurgeons deliver a clear message when interviewing with journalists from print, radio and television outlets.

These newly learned skills can be honed further during the hometown radio interviews being offered at the meeting from 9 a.m. to 5 p.m. on Monday, May 3, and Tuesday, May 4. Media skills also are useful when working with local reporters.

"Members can take the valuable skills they've learned from this seminar and apply them to interviews they participate in back at home with their local media," noted Alex Valadka, chair of the AANS Public Relations Committee. "Reaching out through local media to educate the public about neurological disorders and the need for medical liability reform is another way for each of us to protect the public's access to specialty care." ■

Heather L. Monroe is AANS director of communications.



Senator, Heal Thyself.

{ The House passed it, the president supports it, patients need it and doctors must have it. So why are a few U.S. senators holding liability reform hostage? }

Print Ads Pack Punch Pictured are details of two of four advertisements developed for the Protect Patients Now campaign. The full-page newspaper ads have brought the need for federal medical liability reform to the attention of nearly 5 million people so far.

Continued from page 16

The cloture vote on S. 2207, the "Pregnancy and Trauma Care Access Protection Act," failed 49 to 48, short of the 60 votes necessary to bring the bill to the floor for consideration.

"While it may seem that we are getting nowhere, each time the Senate votes on this matter politicians add to their record of how they stand on medical liability reform," said Katie Orrico, director of the AANS/CNS Washington Office. "The Senate may bring additional liability reform to the floor for consideration later this year, and continued pressure on senators may make a difference in how they vote."

She urged neurosurgeons to contact their senators and thank those who voted "yes" as well as express disappointment to those who voted "no." An e-mail letter can be sent expeditiously online by accessing <http://capwiz.com/noc/home>, selecting the Action Alert and entering the appropriate zip code. Additional information on recent legislative action is available there as well.

Dr. Dunsker urged physicians to stay the course. "We all are familiar with the ancient fable of the tortoise and the hare, and it will come as no surprise to anyone that in this fight, we are the tortoise," he said. "That being the case, perhaps a related and more recent observation by James Bryant Conant will serve to inspire us in our quest: 'Behold the turtle. He makes progress only when he sticks his neck out.'"

"With Protect Patients Now, we specialty physicians have stuck our necks out," Dr. Dunsker continued. "But working together we

are making progress toward effecting federal medical liability reform. If all 230,000 of us do our parts financially and at the grassroots level, our impact increases several-fold. The participation of each and every one of us is key to achievement of our goal." ■

Manda J. Seaver is staff editor of the *Bulletin*.

For Further Information

Protect Patients Now!

www.protectpatientsnow.org

Protect Patients Now News Conference

Archived Video Broadcast, Feb. 10, 2004

National Press Club, Washington, D.C.

www.connectlive.com/events/dmlr

I Pledge to Protect Patients Now!

www.protectpatientsnow.org/fileadmin/pdfs/DMLRPledge.pdf

Doctors for Medical Liability Reform (DMLR)

www.protectpatientsnow.org

Neurosurgeons to Preserve Health Care Access (NPHCA)

www.neuros2preservecare.org

Cover. "Federal Medical Liability Reform: Neurosurgeons Plan to Preserve Patients' Access to Care." *AANS Bulletin*. Fall 2003;12(3):7-21.

www.AANS.org, Article ID 13303

Cover. "A Profession at Risk." *AANS Bulletin*. Fall 2001;10(3):6-14.

www.AANS.org, Article ID 12953

TIMELINE: Neurosurgery Through History

Et tu, Abe?

A lawyer who specialized in representing plaintiffs in medical liability cases recently was a serious candidate for president of the United States. This career background is not unprecedented among national leaders. In fact, such a lawyer was elected president. His name was Abraham Lincoln.

Several factors, which may sound familiar, contributed to the rise in medical liability claims in the mid-1800s. Standards for bringing lawsuits were relaxed by the courts. Americans became less likely to accept illness and suffering as divinely ordained. Medical advertising became widespread. And in 1849 the American Medical Association (founded just two years earlier) published standards for medical education and ethics and established a board whose mission was to expose medical quackery. Defin-

ing standards of practice also helped to define malpractice more clearly. As a result of these developments, between 1840 and 1860 there was an 850 percent increase in medical liability cases in the United States. The rate of population growth was far less in this period, about 85 percent.

This was the time when Abraham Lincoln was pursuing his career as a lawyer. He was self-taught, as he could not afford law school, and he read for the bar on his own. To quote from letters he wrote to aspiring apprentices: "If you wish to be a lawyer, attach no consequence to the *place* you are in, or the *person* you are with...Work, work, work, is the main thing."

Honest Abe had a general practice, including a substantial amount of medical liability litigation, both for plaintiffs as well as physicians. For instance, he vigorously

defended two physicians who treated a carpenter's closed bilateral femur fractures. The patient, who refused the recommended closed manipulation, ended up with one leg shorter than the other and sued for \$10,000 (about \$210,000 in 2004). Lincoln won several postponements and a change of venue. He even employed courtroom exhibits, such as one that illustrated the difference between a young (flexible) chicken bone and an older (brittle) bone. The jury was deadlocked, but the plaintiff's lawyers obtained an out-of-court settlement in the end.

So, yes, medical liability lawyers have run for president. And one of them has a monument in our nation's capital. ■

Michael Schulder, MD, is associate professor in the Department of Neurological Surgery and director of Image-Guided Neurosurgery at UMDNJ-New Jersey Medical School.



A. John Popp
PRESIDENT



William T. Couldwell
ANNUAL MEETING
CHAIR



Richard G. Fessler
SCIENTIFIC PROGRAM
CHAIR



John A. Jane, Sr.
CUSHING MEDALIST



John A. Kusske
DISTINGUISHED SERVICE
AWARD RECIPIENT



Charles L. Branch, Sr.
HUMANITARIAN
AWARD RECIPIENT



Ken Burns
CUSHING ORATOR

Advancing Patient Care Through Technology and Creativity

2004
2004 AANS Annual Meeting May 1-6



Regis W. Haid, Jr.
RICHARD C. SCHNEIDER
LECTURER



James T. Rutka
RONALD L. BITTNER
LECTURER



Anders Bjorklund
VAN WAGENEN
LECTURER



Robert F. Spetzler
THEODORE
KURZE LECTURER



Pasko Rakic
HUNT-WILSON
LECTURER



Uwe Reinhardt
RHOTON FAMILY
LECTURER

Annual Meeting Tour de Force

Advancing Patient Care Through Technology and Creativity, May 1–6

MANDA J. SEAVER

Orlando and its 95 surrounding theme parks and attractions are a fitting stage for the full-scale production that is the 72nd Annual Meeting of the American Association of Neurological Surgeons (AANS). From May 1 through May 6, six science-filled days planned around the theme “Advancing Patient Care Through Technology and Creativity” give way to evenings that provide seemingly endless opportunities for friendship and fun.

Several events take place before the Annual Meeting officially opens. On Friday, April 30, the Latin American Symposium of Neurosurgery is being held from 8 a.m. to 5 p.m. at the Orange County Convention Center. A reception at the Peabody Orlando Hotel follows, further encouraging the exchange of ideas. Also on Friday from 8 a.m. to 5 p.m., the Pain Symposium, presented by the AANS/CNS Section on Pain, offers the latest information on the diagnosis and treatment of craniofacial pain and trigeminal neuralgia.

The popular practical clinics are held all day both Saturday and Sunday. The 43 clinics feature the latest techniques and information on topics from lumbar interbody fusion and how to use PowerPoint to ways for residents to cope in the “real world” of neurosurgery.

The Opening Reception tour de force promises fun for everyone. From 7 p.m. to 9:30 p.m. at Universal Orlando’s Islands of Adventure, the islands of Jurassic Park and the Lost Continent are exclusively open to attendees and their families. The festive atmosphere features fun for everyone, whether enjoying the fabulous food, cocktails and entertainment, or taking turns on thrilling rides such as Poseidon’s Fury and Triceratops Discovery Trail.

On Monday, May 3, the scientific program begins. A total of 80 breakfast seminars are featured, with an entirely new format planned for the Thursday seminars. Attendees can bring their most challenging cases in the areas of lumbar spine, cervico-thoracic spine, cerebrovascular and tumors to discuss with experts.

Also on Thursday, May 6, a fourth plenary session focuses exclusively on socioeconomic issues. The session features the Rhoton Family Lecture by Uwe Reinhardt, PhD, followed by a socioeconomic question and answer session.

In the Exhibit Hall’s 80,000 square feet of space, the latest technology abounds. The AANS Resource Center features old and new favorites, and the Young Neurosurgeons Sixth Annual Silent Auction features an abundance of biddable items and promises another successful year.

Updated information is available at www.AANS.org.

Manda J. Seaver is staff editor of the *Bulletin*.

2004 ANNUAL MEETING PROGRAM AT A GLANCE

FRIDAY, APRIL 30

Latin American Symposium of Neurosurgery	8:00 AM–5:00 PM
AANS/CNS Section of Pain Special Symposium	8:00 PM–5:00 PM
Latin American Reception	6:00 PM–7:00 PM

SATURDAY, MAY 1 AANS MEETING

Registration	7:00 AM–5:30 PM
Practical Clinics*	8:00 AM–5:00 PM

SUNDAY, MAY 2

Registration	7:00 AM–8:00 PM
Practical Clinics*	8:00 PM–5:00 PM
Opening Reception	7:00 PM–9:00 PM

MONDAY, MAY 3

Registration	6:45 AM–4:00 PM
Breakfast Seminars*	7:30 AM–9:30 AM
Exhibits	9:00 AM–4:00 PM
Plenary Session I	9:45 AM–1:00 PM
The Richard C. Schneider Lecture-Regis W. Haid, Jr., MD	
AANS Presidential Address-A. John Popp, MD	
Lunch in Exhibit Hall/Poster Viewing	1:00 PM–2:45 PM
Scientific Program	2:45 PM–5:30 PM

TUESDAY, MAY 4

Registration	6:45 AM–4:00 PM
Breakfast Seminars*	7:30 PM–9:30 AM
Exhibits	9:00 AM–4:00 PM
Plenary Session II	9:45 AM–1:00 PM
Van Wagenen Lecture-Anders Bjorklund, MD, PhD	
Cushing Oration-Ken Burns	
Lunch in Exhibit Hall/Poster Viewing	1:00 PM–2:45 PM
Section Sessions	2:45 PM–5:30 PM

WEDNESDAY, MAY 5

Registration	6:45 AM–3:30 PM
Breakfast Seminars*	7:30 AM–9:30 AM
Exhibits	9:00 AM–3:30 PM
Plenary Session III	9:45 AM–1:00 PM
Theodore Kurze Lecture-Robert F. Spetzler, MD	
Hunt-Wilson Lecture-Pasko Rakic, MD, PhD	
Lunch in Exhibit Hall/Poster Viewing	1:00 PM–2:45 PM
Section Sessions	2:45 PM–5:30 PM
International Reception (open to all international medical attendees)	6:00 PM–7:30 PM

THURSDAY, MAY 6

Registration	6:30 AM–10:00 AM
Breakfast Seminars*	7:00 AM–9:00 AM
Plenary Session III	9:15 AM–12:30 PM
Rhoton Family Lecture-Uwe Reinhardt, PhD	

*Indicates additional registration fees apply. Note: The most up-to-date information is available at www.AANS.org and in the final meeting program onsite.

Subspecialists Contemplate Their Future

Workforce Outlook Explored for Pain Management and Spinal Surgery

In our last issue, subspecialists in the areas of cerebrovascular surgery, neurotrauma and critical care, pediatric neurosurgery, stereotactic and functional neurosurgery, and tumors offered their views on the outlook for the neurosurgical workforce in these areas over the next 10-20 years. Each was asked to consider these questions:

- What changes are on the horizon regarding the scope of services offered in your subspecialty?
- Is the number of neurosurgeons being trained for your subspecialty sufficient given the scope of neurosurgical services that can be offered?
- What factors, if any, do you feel are significantly impacting (or will significantly impact) the number of neurosurgeons choosing or leaving your subspecialty?

In this issue, Oren Sagher, MD, offers his view on the neurosurgical workforce in the area of pain management, and Regis Haid, MD, addresses the future of spinal surgery.

PAIN MANAGEMENT

Oren Sagher, MD

Surgical intervention for pain management traditionally has been considered an exclusively neurosurgical realm. In the last decade, however, non-neurosurgeons and even non-surgeons such as anesthesiologists and physiatrists increasingly have undertaken these procedures. There are myriad reasons for the increasing involvement of non-neurosurgeons in pain surgery, among them a relative economic disincentive for neurosurgeons to be involved in pain care that creates a need then met by other practitioners. In spite of such challenges to neurosurgery's participation in pain management, there is ample opportunity in the next several years both for neurosurgeons to increase their involvement in this subspecialty and for pain sufferers to receive the highest quality of care.

In order to understand the demographics of pain surgery, it is useful to classify pain procedures as either ablative or modulatory. Ablative procedures, such as dorsal root entry zone lesions, cordotomies, and myelotomies have a well-established place in the treatment of certain intractable pain syndromes and still exclusively are performed by neurosurgeons. However, the demand for such procedures is fairly low and likely to remain constant in the coming years.

The real growth area in pain surgery is

in modulatory procedures such as intraspinal drug delivery and electrical stimulation. Patients' demand for neuromodulation is likely to continue to grow in the next decade because of the inherently nondestructive nature of these procedures, as well as the increasing sophistication of the devices being utilized. However, the minimally invasive nature of these procedures requires a more limited technical skill set, allowing a wider array of practitioners to get involved. Anesthesiologists, physiatrists and neurologists increasingly have shown an interest in learning the surgical

“In the coming decade, neurosurgeons—the only specialists who combine a fundamental understanding of neurophysiology with the skill set necessary to alter it through either modulatory or permanent means—are positioned to resume their prominence in pain management.”

techniques necessary for implementation of intraspinal drug delivery and neurostimulation. At the same time, neurosurgeons have shown increasing reluctance to take on neuromodulation for pain as part of their practices. Patients undergoing this therapy require significantly more ongoing care than other neurosurgical patients, and reimbursement for these procedures (as well as for post-operative care) is not commensurate with the effort required. This shift in demographics has resulted in a steady erosion of

the neurosurgical presence in pain medicine: For example, currently only about 30 percent of pain implants are placed by neurosurgeons. Reversing this trend is neurosurgery's challenge.

And yet, with every challenge comes opportunity. In the case of neurostimulation, there is significant opportunity for neurosurgeons. While procedures to place intrathecal drug delivery systems typically are brief, straightforward, and seemingly quite amenable to non-neurosurgical practitioners, the same cannot be said of electrical stimulation. There is mounting evidence now that well-established therapies such as spinal cord stimulation for the treatment of chronic radiculopathy are more effective when placed in an open procedure, through laminotomy, for example, than when placed percutaneously. Moreover, the increase in the number of procedures performed by non-surgeons already is resulting in a rising need for surgical revisions. Finally, the development of novel stimulation therapies and indications, such as motor cortex stimulation and deep brain stimulation in central neuropathic pain, likely will increase the role of neurosurgery in the management of pain.

In the coming decade, neurosurgeons—

the only specialists who combine a fundamental understanding of neurophysiology with the skill set necessary to alter it through either modulatory or permanent means—are positioned to resume their prominence in pain management. What is needed for this to come to fruition is renewed focus on pain surgery and pain research within residency training programs. ■

Oren Sagher, MD, is chair of the AANS/CNS Section on Pain and associate professor in the Department of Neurosurgery at the University of Michigan in Ann Arbor.

SPINAL SURGERY

Regis Haid, MD

Spinal surgery continues to grow and evolve. Why? Quite simply, the aging of the U.S. population increases the sheer volume of patients in need of treatment for disorders of the spine and peripheral nerves, while technological advances expand the therapies that are available for operative and nonoperative treatment of these disorders. In addition, patients' increased demand for these therapies fuels the need for expanded efficacy and efficiency in the management of the entire spectrum of disorders of the spine and peripheral nerves.

It is inescapable that advances in imaging, surgical technology, and most importantly, our understanding of spinal disorders, have increased our ability to

lize them appropriately in the best interest of our patients. In the short term, this perhaps is our greatest challenge.

While functional neurosurgery is on the verge of some major breakthroughs, and cerebrovascular neurosurgery is focusing on the endo-techniques that complement microsurgical skills, for a variety of reasons spinal surgery currently is one of the strengths of neurosurgery. I do not have to cite the number of neurosurgeons who are members of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves; it is the largest subspecialty section. I do not have to affirm the number of U.S. healthcare dollars spent to treat "back pain"; it is more than for any other specific disorder. I do not have to reiterate that spinal surgery today accounts for the majority of

ease, that is, the vascular surgeons, now dominate treatment for vascular disease.

Are there enough neurosurgeons to treat our patients? For treatment of spinal disease—absolutely not.

The aforementioned factors—the burgeoning baby boomer demographics and the associated increased incidence of degenerative disease, advances in our abilities to image and treat spinal disease, the increased need to be involved in identifying the correct treatment for a specific pathology and correlating it with objective, measurable outcomes, and lastly, the need to be more involved with the total treatment of spinal disease, beginning with nonsurgical therapy—demonstrate the need for more neurosurgeons:

But the necessary skill set required to fulfill this need is not something that can be acquired in a six-month "mini-fellowship" in the middle of neurosurgical residency. Rather, a commitment to respect and teach state-of-the-art spinal diagnostic skills and surgical techniques is required. Such training must be accomplished at multiple levels: residency, postgraduate fellowship, and continuing medical education for the practicing neurosurgeon.

Without an increase in neurosurgeons who are proficient in the spinal skill set, neurosurgery will fail to capitalize on a major opportunity. The obstacles are obvious: decreasing reimbursement, increasing professional liability insurance premiums with the attendant pressure to practice defensive medicine, changes in resident work hours...and the list continues. If we want not only to survive, but also to prosper, changes must be made. Although there are innumerable aspects of the future we cannot control, we are able to make choices regarding workforce, training, and emphasis. These choices must be made. ■

"Rather than focusing solely on the surgical aspects of the disease, we must take steps to direct all aspects of care, including the nonsurgical therapeutic and diagnostic treatments ... as well as the surgical treatments."

treat both basic and complex spinal problems. Compare today's environment with that of 20 or so years ago. When I was a junior resident, the standard operative intervention for spinal disease was laminectomy, with the occasional anterior cervical fusion. Halo brace application was the treatment of choice for most acute cervical injuries, while for cases of traumatic spinal instability, standard stainless steel wiring was the material of choice. Bone grafts typically were harvested by our orthopedic colleagues.

So, although there exists a legitimate concern that technology may influence treatment, as recent articles in the press have argued, it would be foolhardy to refute the fact that internal fixation techniques, biomaterials, and biologics such as bone morphogenetic protein, significantly have changed the landscape of spinal surgery. However, concomitant with these advances comes the responsibility to uti-

lize them appropriately in the best interest of our patients. In the short term, this perhaps is our greatest challenge.

Our view must be farsighted. Rather than focusing solely on the surgical aspects of the disease, we must take steps to *direct* all aspects of care, including the nonsurgical therapeutic and diagnostic treatments (for example, facet injections and selective nerve injections) as well as the surgical treatments. If we focus only on the surgery, to the exclusion of primary spinal treatment, we may lose the ability to direct patients to neurosurgeons, who are the most qualified specialists in the treatment of spinal disorders. If you are skeptical, I remind you to think back before noninvasive vascular labs, when neurosurgery performed a very significant proportion of the carotid endarterectomies. The "gatekeepers" of vascular dis-

Regis Haid, MD, is chair of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerves and a neurosurgeon at Atlanta Brain and Spine Care in Georgia.

Readers Respond to Medical Liability Crisis

Reader Provides a Market Perspective

The fall issue of the AANS *Bulletin* covers in depth the medical liability topic from federal and state, as well as personal perspectives. The highlighted issues are as diverse as they are complex. Additional perceptions may be valuable.

The article "Medical Malpractice" by Studdert and colleagues in the Jan. 15 *New England Journal of Medicine* provides a complementary background on which to reflect the specialty-specific concerns regarding medical liability. The authors document that "The latest tort crisis is characterized by...dramatic increases in payouts to plaintiffs since 1999...lower levels of confidence and trust in the healthcare system among patients...."

This lower level of confidence and trust in the healthcare system is reflected not just in the number of patients filing claims (this apparently has not changed significantly in the last several years), but by the mood of juries (as implied by larger jury awards).

Measuring the degree of trust experienced in a society is difficult. Here, the fields of medicine and law provide one venue for assessing it. The arena of medical liability seems to provide some clues as to where this relationship stands. Based on Studdert's article, it seems that a dramatic negative shift in societal trust has occurred, other factors notwithstanding, and this finding is well-supported by the personal stories in the *Bulletin*.

Along a parallel line, the year 1999-2000 represents an economic and financial "top" as measured by key stock market indexes. For example, the Kondratieff's 50-year cycle has seen its peak. It represents a cycle of business credit expansion and contraction. With this metaphor in mind, we may view *credit* as *trust*. It appears that major *credit*

contraction is under way, not just a fiscal one but a human one as well. Similarly, the Elliott Wave analysis, an index based on societal sentiment and psychology driving the markets, also peaked in January 2000.

From this framework, it can be anticipated that the medical liability crisis will likely worsen in the coming years, as cycle analysis indicates that we are far from the bottom of negative societal mood, business credit contraction, and the stock market "bear."

— Ivo P. Janecka, MD, MBA, FACS, Tampa, Fla.

For More Information

Casti, J. "I Know What You'll Do Next Summer." *New Scientist*. 2002 Aug 31, 29-32.

www.newscientist.com

Gordon, I. "The Kondratieff Winter." *Financial Sense*. www.financialsense.com/transcriptions/gordon.htm

Orrico, K. "Federal Medical Liability Reform." *AANS Bulletin*. 2003 12(3), 6-20. www.AANS.org. Article ID 13303

Prechter, R. & Frost, A. *Elliott Wave Principle*. Gainesville, Ga.: New Classics Library, 1984.

Studdert, D. et al. "Medical Malpractice." *N Engl J of Med*. 2004 Jan 15;350(3) 283-292. <http://content.nejm.org/content/vol350/issue3/index.shtml>

percent of Americans want tort reform.

As a result, several states in which skyrocketing liability insurance premiums were front-page news took unprecedented steps to rein in lawsuits. The momentum toward vital medical liability reforms will continue in 2004 because state legislatures are beginning to act early rather than wait for a full-blown health crisis.

Texas best demonstrated the power of public support for reforms in 2003. In a landmark vote, Texans decided to change their state constitution to allow the legislature to put a cap on damages in lawsuits, particularly the subjective noneconomic damages ("pain and suffering") that are driving up jury awards and insurance premiums.

Other states moved forward as well. The Idaho legislature, in a bold example of leadership, took the preemptive step of lowering the state's noneconomic damages cap before a crisis could hit. Arkansas and West Virginia, two states where shuttered medical practices and hospital wards had sometimes forced residents to drive into nearby states for healthcare, also enacted solid tort reform.

These legislative actions were based on the realization that the cost of professional liability insurance is primarily determined by the insurer's loss experience. Insurers in states that do not limit the amount of money a jury can award a plaintiff for intangibles, such as pain and suffering, face a greater risk of a large award. Additionally, the possibility of a large award provides an incentive for patients and lawyers in these states to file claims of dubious merit in an attempt to hit the jackpot.

Nationally, nearly 80 percent of claims are ultimately determined to be without merit, but the insurer still spends an average of \$25,000 for each claim to vindicate its policyholders. It is not surprising that mal-

2004 Holds Promise for Progress

The issue of spiraling professional liability insurance rates exploded on the national stage in 2003 in a way that finally captured the attention of the American public. The nature of the crisis has become increasingly clear to the average person, and polls show that more than 70

practice insurers pay out about \$1.40 for every premium dollar they collect in today's lawsuit happy society.

The cost of dubious lawsuits ignites a financial chain reaction that extends far beyond insurers, doctors, and patients, however. In addition to paying higher liability premiums, doctors are performing more tests and using expensive defensive medicine techniques to protect themselves. Since most Americans receive their health insurance through their employers, businesses of all kinds are either paying more for health insurance or asking employees to saddle part of the load. This translates into higher costs throughout our economy and family budgets stretched to the breaking point.

The good news is that even though the march toward tort reform is sometimes slow, the movement continues to be positive. No state legislature has rescinded advances made in past years, and many have moved tort reform proposals to the front burner.

The bad news, however, is that some state legislatures and members of Congress wait until the last moment to enact minimal reforms that provide more political cover than long-term relief. Effective tort reform legislation failed to pass in Missouri, Nebraska, Oregon, Washington, and Wyoming, while "reforms" with significant loopholes were passed in Florida and Nevada.

So what does 2004 hold for medicolegal reform? First and foremost, it will receive even more attention on the national level than it did in 2003. Candidates for president, Congress, and state legislatures across the nation will have to address the issue this year. Reform will be a key campaign issue, particularly in the nearly two dozen states the American Medical Association says are in a full-fledged healthcare crisis. In these states, insurance rates can be as much as four times what doctors pay in stable states such as California.

Overall, there will be a continued effort by physicians, patients, and the business

community to keep moving forward. More decision-makers are realizing that physicians are avoiding risky cases and spending hours upon hours dealing with legal issues that would be spent more productively helping patients.

Progress was made in 2003, and there is promise for further advances in 2004. We can be certain that the issue will not go away and that even more states will be involved in the coming year. But until politicians find the resolve to take lawyers out of doctors' examining rooms, the struggle ahead will be hard-fought and runaway litigation will continue to impair access to healthcare.

— Richard E. Anderson, MD, Napa, Calif.

Dr. Anderson, an oncologist, is CEO and chairman of the board of governors of The Doctors Company, a physician-owned medical malpractice insurance company based in California.

National Tort Reform Legislation Must Occur

A recent survey of neurosurgeons across the country reveals that 88 percent reported they had been named in a medical liability suit, 16 percent in more than four. Would anyone believe that the overwhelming majority of neurosurgeons in this country are incompetent, or deviate routinely from the accepted standard of care? In fact, in view of these numbers, the term "standard of care" becomes essentially meaningless.

In arguing against meaningful tort reform and a cap on pain and suffering awards, the Democrats and trial lawyers have misinformed the public in a number of ways.

First, limiting pain and suffering awards does not mean that patients who have been injured by malpractice do not have the right to their day in court, and to receive meaningful compensation. They would still be entitled to recover all their medical expenses, future associated medical expenses and any home and nursing

care expenses, lost wages, and future lost wages. The spouse would still be entitled to payment for loss of consortium, etc. This can and does all add up to a large amount of money. And a cap does indeed allow for payment for pain and suffering, but limits it to a reasonable amount.

Second, the argument that a high payment punishes a bad doctor is fallacious because most payments are made by the insurance companies. Bad doctors are punished by having hospital privileges revoked and by having their licenses suspended or revoked, effectively removing them from practice.

Third, the high cost of professional liability insurance is not due to the greed of insurance companies. New York's largest liability carrier is the Medical Liability Mutual Insurance Company. It is owned by its physician policyholders. Any profits are returned to the physicians as dividends. It is clearly in their best interest to run an effective, efficient company that will hold down insurance costs. Yet, in its three decades of existence, it has never managed to significantly reduce premiums.

Last, trial attorneys claim that limiting pain and suffering awards will not have an impact on the medical liability crisis, that it will not reduce the costs of insurance premiums. In truth, what has been achieved in states where meaningful caps have been enacted is a stabilization of rates, rather than the skyrocketing increases that the rest of us have experienced. This year in New

Continued on page 26

MORE LETTERS?

Send your comments regarding the medical liability crisis or other issues in neurosurgery to the editor via digital mail at bulletin@AANS.org, or regular mail, AANS, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008. Letters are assumed to be for publication unless otherwise specified. Correspondence selected for publication may be edited for length, style and clarity.

Continued from page 25

York, most neurosurgeons in private practice will see an increase of 14 percent. This means, for example, that neurosurgeons practicing in Long Island will have to pay the astronomical liability premium of \$203,000 per year. There is simply no way for neurosurgeons to recoup these astonishing expenses.

A meaningful cap on pain and suffering will help diminish the medical liability crisis, but it is just a start. The entire medical tort system needs to be overhauled. One suggestion: a rotating panel of patients, doctors, and attorneys, reviewing the facts of each case in a non-emotionally charged setting, and presenting their conclusions to a judge with expertise in medical litigation. This would result in a faster, more equitable, and more efficient system. The concept of a non-jury medical litigation

system, analogous to the current New York Worker's Compensation system, represents a major departure from our present tort system. But if people want to have ready access to quality care, change must occur.

Everyone currently expects quality medical coverage as a right, at a minimal cost that is largely absorbed by insurance coverage. With Medicare pricing now fixed by the federal government, and most private carriers benchmarking their reimbursement rates to Medicare, the medical marketplace is no longer a true competitive, free market. The American public looks upon good healthcare as a right and when rights are granted, there are costs. One cost must be a change in the medical tort system. The question is whether our politicians have the backbone to do the right thing.

When I was a neurosurgical resident at

George Washington University, my professor once informed me that his friend, Justice William Rehnquist, had told him not to expect medical tort reform because politicians were not going to defy trial lawyers. The observation remains correct two decades later. A trial lawyer recently told me that he and his colleagues were delighted by the defeat of the tort reform legislation because they feared a reduction in their incomes. I am sorry to have to burden my friends the trial lawyers, but ultimately we must choose between having more wealthy trial lawyers and a high quality, readily available healthcare system.

— Ezriel E. Kornel, MD, White Plains, N.Y.

Dr. Kornel is president of the New York State Neurosurgical Society.

CPT Coding Proposals

Difficulties Facing Industry and Physicians

Current Procedural Terminology (CPT) as developed by the American Medical Association (AMA) represents a comprehensive effort to describe physician services. CPT has evolved into the single standard method for tracking and billing physician services. To maintain the coding system and provide a mechanism for revising codes as technology and medical practice evolved, the AMA formed the CPT Editorial Panel and a network of CPT advisers representing the various medical specialties.

Although anyone can submit a request for a CPT code, significant hurdles are encountered when proposals are presented without the involvement of a medical specialty society. To facilitate effective advocacy for future proposals, this article highlights examples of the interactions of industry with organized medicine in the CPT coding process.

Submitting a Code Proposal

Before a code proposal can be approved, several requirements must be met. First, the physician service must be performed in the United States with sufficient volume and breadth to warrant code development. Second, physician services that use devices should have Food and Drug Administration (FDA) approval. Finally, the efficacy of the physician service should be supported by independent evidence in U.S. peer-reviewed publications. The AMA distributes proposals quarterly to the CPT advisers for comment. Subsequently, the proposed codes are debated at the panel regarding merit as well as to refine language. If the panel does not accept a proposed code, it can be tabled for discussion at subsequent meetings or resubmitted to the panel after revision. A common reason that the panel does not accept codes is failure to attain consensus among medical specialty societies.

Proposals Encounter Pitfalls: Examples

Several years ago, after the FDA approved percutaneous intradiscal therapy, two different manufacturers worked independently to develop and submit code proposals. However, support of the medical specialty societies was not obtained. The proposals were tabled and resubmitted on several occasions. Although a multidisciplinary societal presentation was given, several panel members expressed strong criticism concerning the limited peer-reviewed data available. A conflict of interest from the business relationships between some of the authors and industry further impeded panel acceptance, resulting in the creation of a temporary level III tracking code.

Contrast this experience with the development and successful navigation of intracavitary chemotherapy delivery through the FDA process. Industry representatives were prepared to submit a code proposal, but they first sought the advice of the Coding and Reimbursement Committee (CRC). Wide application and usage was prevalent and peer-reviewed data was available, but an additional component of physician work needed to be identified beyond that accounted for in the craniotomy code. When this was accomplished, the CRC proceeded with the development of a CPT proposal, which was accepted and included in CPT 2003. This example highlights the subtle but critical difference between codes for a product or technology (for which an independent coding system outside the purview of the AMA exists) and a CPT code for a physician service.

As a third example, a medical specialty society developed a code proposal for fracture reduction with vertebral augmentation. A series of meetings aided revision of the code in preparation for submission. However, only a limited number of publications

addressing the efficacy of the technology compared to currently available treatment methods was found. Despite wide application, FDA approval, identified additional physician work, and multispecialty society interest, the committee elected to delay proposal submission until additional published data assessing the impact of this technology on patient outcome were available.

Physician Services Versus Technology

These examples highlight the hurdles and pitfalls encountered when industry develops technology that is used by physicians. It is imperative to understand that the CPT process identifies unique physician services not otherwise described, rather than devices or technology. However, it is even more critical to understand that expensive new devices and technology further strain the healthcare dollars available. For example, payment for technology and devices often is sought by industry through diagnosis-related groups (DRGs) of the hospital Medicare Part A system; however, using these expensive technologies and devices in the outpatient setting brings them into the Medicare Part B formula, creating a negative impact on the funds available to pay for physician services.

This has placed hospitals, industry and physicians in the position of trying to influence how these limited funds are distributed. Physicians continue to advocate for more appropriate reimbursement with some limited success. We must take a leading role in defining the introduction and usage of expensive devices and technology, as the payment for technology results in fewer dollars available to reimburse the physician for the actual healthcare service provided. ■

Gregory J. Przybylski, MD, is professor and director of neurosurgery at JFK Medical Center in Edison, N.J. He is a member of the AANS/CNS Coding and Reimbursement Committee and he is on the faculty for AANS coding and reimbursement courses. He is also council director of socioeconomic affairs for the North American Spine Society and program chair of its coding update courses.

What I Can Do

A Young Neurosurgeon's Perspective on Medical Liability

For many residents, the litany of mind-numbing statistics on the medical liability crisis may seem unreal. The average cost of professional liability insurance for neurosurgeons has increased from \$44,000 to \$73,000 per year, and 19 percent of neurosurgeons have reported a greater than 100 percent increase in their premiums, according to the 2002 report, *Neurosurgery in a State of Crisis*. The report further indicates that an increasing number of neurosurgeons are retiring (300 in 2001), and that there are fewer than 3,000 board-certified neurosurgeons in the United States.

The impact of liability suits on practitioners can be significant: a single lawsuit can raise insurance premiums to a level that can curtail the types of procedures one can perform, or, in the extreme, dissolve a practice entirely. And surgeons are not the only ones suffering. Patients in some areas are finding that their access to neurosurgical services is significantly reduced, or even nonexistent in an emergency situation.

In response to this crisis, we must learn how to make ourselves less vulnerable to litigation without resorting to defensive medicine and becoming advocates for changing a broken medicolegal system. Residency is an ideal time to begin this process.

For residents who believe that they are protected by virtue of being in a training program, let me dispel that myth now. You can be named in a lawsuit and you may be asked to testify. The two key elements in a successful lawsuit are negligence (was it below the prevailing community standard of care at the time of treatment?) and causation (no harm, no foul), and both are necessary for a case to proceed. But keep

in mind, it is widely accepted that most lawsuits come from disgruntled patients or their families.

Therefore, I propose Triple H therapy—Honesty, Hypervigilance, and Hospitality. Treatment outcomes and unexpected side effects or complications need to be discussed honestly, immediately and directly with the patient and family. It is no longer appropriate to “spare the patient anxiety” by downplaying the risks of a treatment or its alternatives. Be hypervigilant regarding any labs, scans, and consults that you order. Finally, take your time with patients and families. Make sure they feel comfortable with the treatment decisions being made and make them a partner in the process.

Get Active Now

Of course, while it sometimes may not feel like it, there is also life outside the hospital, and if we are to change a system that is forcing good, reputable, hard-working physicians from their practices, we have to get active. The best solution includes passage of federal legislation that limits noneconomic damages to \$250,000. Such a bill passed the House of Representatives last year, but has failed this year in the Senate. Other proposals—enforced pretrial arbitration, or penalizing lawyers who file more than three frivolous lawsuits—insufficiently address the problem. So, what is the best way for a young neurosurgeon to get involved in this process? I have several suggestions:

■ **Become educated.** Go to the Web sites of Neurosurgeons to Preserve Health Care Access (NPHCA), www.neuros2preservcare.org, and Doctors for Liability Reform (DMLR), www.protectpatientsnow.org, and watch the videos. Regularly read the updates from the Washington

Committee.

■ **Contribute.** Make a contribution, however small or large, to the NPHCA. (In fact, as I write this, I am sending my check off.)

■ **Start sending e-mails.** Write your congressional representatives to remind them of the imminent threat to our public health system. If you follow the links from www.AANS.org, you can send a customized e-mail to your representatives and senators in less than one minute. According to Washington staffers, the impact of e-mail is the same as a letter sent by regular mail. Short of making an appointment, this is the best way to make your voice heard.

■ **Attend the LLDC in Washington.** Make plans to attend the 2004 Leibrock Leadership Development Conference (LLDC) July 18-20, organized by the Council of State Neurosurgical Societies. The conference will be followed by a visit to Capitol Hill, where you will make your voice heard.

■ **Network.** The AANS Young Neurosurgeons Committee has formed a task force to assist NPHCA in its efforts. Contact a member of this committee (Mark McLaughlin, MD, Brian Subach, MD, or Larry Chin, MD), or make plans to attend the open session of the Young Neurosurgeons Committee meeting, which is usually held on a Monday night during the annual meeting of the American Association of Neurological Surgeons or the Congress of Neurological Surgeons.

Despite the new demands placed upon us, we must not allow fear to rule the way we practice medicine. Start your career by taking the positive steps I have outlined, and help strengthen the future of neurosurgery. ■

Lawrence S. Chin, MD, is a neurosurgeon at the University of Maryland Medical Center in Baltimore. He is vice chair of the AANS Young Neurosurgeons Committee and the committee's liaison to the AANS/CNS Washington Committee.

AANS Welcomes 768 New Members

September 2002-February 2004

ACTIVE MEMBERS (60)

Geoffrey R. Adey MD
Lilyana Angelov MD FRCSC
Gustavo J. Arriola MD
Warren W. Boling MD FRCSC
Jonathan A. Borden MD
Darrell C. Brett MD FACS
Dongwoo John Chang MD FRCSC
Mike Wooliang Chou MD
Richard C. Cooper MD
Jacques Demers MD FRCSC
Clifford C. Douglas MD PhD
Christopher M. Duma MD FACS
Catalino D. Dureza MD
Marc E. Eichler MD
Shahin Etebar MD
Michael P. Feely MD
Matthias Michael Feldkamp MD PhD FRC
Daryl R. Fourney MD FRCSC
David Garrett Jr. MD
Timothy M. George MD
Mark A. Giovanini MD
Bryan Givhan MD
Steven K. Goodwin MD
Lee R. Guterma PhD MD
Mark Charles Held MD
Maria Petra Herrera Guerrero MD
Jonathan W. Hopkins MD
Thomas Richard Hurley MD
Taro Kaibara MD FRCSC
Jerone D. Kennedy MD
Michael P. B. Kilburn MD
Abhaya Vivek Kulkarni MD FRC
Todd Michael Lasner MD
Roseanna M. Lechner MD
Faustino Llamas Ibarra MD
Deon F. Louw MD
John Richard Macfarlane Jr. MD
Eric M. Massicotte MD MSC
Paul B. Mitchell MD
Dante Joseph Morassutti MD
Jeffrey Paul Nees MD
Peter C. Nora MD
Joan Frances O'Shea MD
Michael R. Puumala MD
Mahmoud Rashidi MD
Leonardo R. Rodríguez-Cruz MD
Abbas F. Sadikot MD PhD
Jose Santos Pico MD
Harold D. Segal MD
Abdalla Shamisa MD

Scott R. Shepard MD
Oscar Suarez-Rivera MD
Todd W. Trask MD
Earl Christopher Troup MD
Sagun K. Tuli MD FRCSC
Jed P. Weber MD
Robert J. Weil MD
Wayne L. Wittenberg MD PhD
Christopher E. Wolfia MD
Kennedy Yalamanchili MD

ACTIVE PROVISIONAL MEMBERS (234)

Aviva Abosch MD PhD
John M. Abrahams MD
Imad Abumeri MD
Robert Adams MD
Felipe C. Albuquerque MD
Philipp R. Aldana MD
Rafael Allende MD
Christopher Pearson Ames MD
Sepideh Amin-Hanjani MD
Thomas S. Anderson MD
Lars Anker MD
David F. Antezana MD
Jose M. Arias MD
Kenan Arnautovic MD
Steven C. Bailey MD
Gregory William Balturshot MD
Kaveh Barami MD PhD
Hugo E. Benalcazar MD
Ethan A. Benardete MD PhD
Bernard R. Bendok MD
Clark B. Bernard MD
Kimberly D. Bingaman MD
Maxwell Boake MD
Miroslav P. Bobek MD
Robert J. Bohinski MD PhD
Alan S. Boulous MD
Gavin W. Britz MD
Richard V. Buonocore MD
John A. Campbell MD
Jeffrey E. Catrambone MD
Joseph S. Cheng MD
Joseph A. Christiano Jr. MD
John Riggio Cifelli MD
Richard E. Clatterbuck MD PhD
Judson H. Cook MD
Jean-Valery C. E. Coumans MD
John D. Davis IV MD
John R. Dickerson MD
Bret A. Dirks MD*
Sanat Dixit MD
Geoffrey R. Dixon MD

Patrick F. Doherty MD *
Devanand A. Dominique MD
Jill Wright Donaldson MD
Jose Dones MD
John K. Dorman MD
Bryan J. Duke MD
Susan R. Durham MD
William Jeffrey Elias MD
Bret D. Errington MD
Phillip G. Esce MD
Wesley H. Faunce III MD PhD
Melvin Field MD
Santiago De Jesus Figueroa MD
Andrew D. Fine MD
Amory J. Fiore MD
Katrina S. Firlik MD
Gregory D. Foltz MD
Kelly Douglas Foote MD
James S. Forage MD
Jonathan A. Friedman MD
Mark A. Fulton MD
Jose Luis Gallegos Barredo MD*
Jason E. Garber MD
Christopher A. Gegg MD
Jonathon Brett Gentry MD
Mark S. Gerber MD
John W. German MD
Saadi Ghatan MD
Abdi S. Ghodsi MD
Sanjay Ghosh MD
Alexandra J. Golby MD
Tushar M. Goradia MD PhD
Gerald A. Grant MD
Sande A. Greene MD
David L. Greenwald MD *
Arthur Grigorian MD
Raymond W. Grundmeyer III MD
Sanjay Gupta MD
Lisa L. Guyot MD PhD
Bassam A. Hadi MD
Michael V. Hajjar MD
Iftikharul Haq MD FRC
Raymond I. Haroun MD
Odette Althea Harris MD
Gregory S. Harrison MD
James S. Harrop MD
Amy B. Heimberger MD
Jeffrey S. Henn MD
Philip J. Hodge MD
Langston T. Holly MD
John H. Honeycutt MD
Devon A. Hoover MD
Paul J. Houle MD
John K. Houten MD

Gery Hsu MD
Frank P. K. Hsu MD PhD
Judy Huang MD
Jason R. Hubbard MD
John L. Hudson MD PhD
Robert Quinn Ingraham Jr. MD
Robert E. Isaacs MD
Brian A. Iuliano MD
Thad R. Jackson MD
Arthur L. Jenkins III MD
Michael G. Kaiser MD
Christopher G. Kalhorn MD
Stuart S. Kaplan MD
Jordi X. Kellogg MD
Rohit K. Khanna MD
Stanley H. Kim MD PA
Robert R. Kraus Jr. MD
Shekar N. Kurpad MD PhD
Frank LaMarca MD
Giuseppe Lanzino MD
Sung Hoon Lee MD
Albert S. Lee MD
Gerald Michael Lemole Jr. MD
Michael A. Leonard MD
Maciej S. Lesniak MD
Armond L. Levy MD
Jae Y. Lim MD
Tina Lin MD
Erwin Lo MD
Thomas S. Loftus MD
Christopher J. Madden MD
Hulda B. Magnadottir MD
Kyle J. Mangels MD
Alvin Marcovici MD
Russell R. Margraf MD PhD
William E. McCormick MD
Richard J. Meagher MD
Rajesh V. Mehta MD
William Mitchell MD
Fardad Mobin MD
John LeRoy Moriarity Jr. MD
Kevin C. Morrill MD
Henry Moyle MD
Jenny J. Multani MD
Praveen V. Mummaneni MD
Bradley R. Nicol MD
Eric W. Nottmeier MD
Michael Y. Oh MD
Greg Olavarria MD
Brett A. Osborn DO
Renatta J. Osterdock MD
John R. Pace MD
Helson Pacheco-Serrant MD
Achilles K. Papavasiliou MD

Efstathios Papavassiliou MD
Andrew T. Parsa MD PhD
Atul K. Patel MD
Victor L. Perry MD
Loi K. Phuong MD
Glen Jeffrey Poffenbarger MD*
Eric A. Potts MD
Sujit S. Prabhu MD
Charles Joseph Prestigiacomo MD
Joseph K. Preston MD
Patricia B. Raksin MD
John Kevin Ratliff MD
George Timothy Reiter MD
Benjamin J. Remington MD
Robert E. Replogle MD
R. L. Patrick Rhoten MD *
Joshua M. Rosenow MD
Michael K. Rosner MD
Curtis J. Rozzelle MD
Catherine A. Ruebenacker-Mazzola MD
David J. Sacco MD
Ali Sadr MD
Sean Salehi MD
Ayman M. Salem MD
Faheem A. Sandhu MD PhD
Paul Santiago MD
John S. Sarzier MD
Alan M. Scarrow MD JD
Meic H. Schmidt MD
Steven B. Schwartz MD
Amit Y. Schwartz MD
Lauren F. Schwartz MD
Cyril T. Sebastian MD
Michael E. Seiff MD
Khalid A. Sethi MD
David H. Shafron MD
George B. Shanno MD
Ashwini D. Sharan MD
Jonas M. Sheehan MD
Jonathan D. Sherman MD
John M. Shutack MD
Diane K. Sierens MD
Andrew E. Sloan MD *
Mark D. Smith MD
Matthew D. Smyth MD
Christopher L. Sneed MD
Jeffrey M. Sorenson MD
Kevin L. Stevenson MD
Richard B. Stovall MD
Daniel Y. Suh MD PhD
Christopher K. Taleghani MD
Albert E. Telfeian MD

Daniel J. Tomes MD
James T. Tran MD
Neil A. Troffkin MD
Hari K. Tumu MD
Henry Yu Ty MD
Donald R. Tyler II MD
Erol Veznedaroglu MD
Alan T. Villavicencio MD
Todd W. Vitaz MD
Amir A. Vokshoor MD
Nicholas F. Voss MD
Scott Patrick Wachhorst MD
Paul Joseph Waguespack MD
Kevin A. Walter MD
John E. Wanebo MD
Lyndell Y. Wang MD
Marjorie C. Wang MD
Michael Y. Wang MD
Peter M. Ward MD
W. Lee Warren Jr. MD
John C. Wellons III MD
Gregory C. Wiggins MD
Steven F. Will MD
Diana B. Wiseman MD
Erich W. Wolf II MD PhD
Charles L. Wolff III MD
Henry H. Woo MD
Steven D. Wray MD
Peter J. Yeh MD PA
Andrew S. Youkilis MD
Steven Christopher Zielinski MD
Martin Zonenshayn MD
Alexander Zouros MD

An asterisk () signifies that the individual has attained certification by the American Board of Neurological Surgery and has been promoted to Active status.*

FELLOW MEMBERS (122)

Todd Abruzzo MD
Laurie Lynn Ackerman MD
Deepak Agarwal MD
Hazem Ahmed MD
Tord D. Alden MD
Maher A. Al-Hejji MD
Hisham Al-Khayat MD
M. Serdar Alp MD
Ghanem Al-Sulaiti MD
Richard C. Anderson MD
Takashi Araki MD
Pablo Arango MD
Akram Awadalla MD
Vijayabalan Balasingam MD PhD
Curtis L. Beauregard MD
Tibor Becske MD
Phillip Berryhill MD
Sumon Bhattacharjee MD
Asis Bhattacharya MD
Robert J. Bohinski MD PhD

Jonathan Brisman MD
Ketan R. Bulsara MD
Peng Roc Chen MD
Dean Chou MD
Jay Y. Chun MD PhD
Ric Cody MD
Sean Cullen MD
Edwin J. Cunningham MD
Elias Dagnew MD
Miliind Deogaonkar MD
Arvind Kumar Dubey MD
Clara Raquel Epstein MD
David Fiorella MD
Karsten Fryburg MD
Robert T. Geertman MD PhD
Ira M. Goldstein MD
Patrick C. Graupman MD
Thorsteinn Gunnarsson MD
Ryder P. Gwinn MD
Jeffery A. Hall MD
Clement Hamani MD
Mark R. Harrigan MD
Roger Hartl MD
Tim Hendrick MD
Stephen John Hentschel MD
Roman Hlatky MD
Mojgan Hodaie MD
Paul J. Holman MD
John A. Jane Jr. MD
Mohsen Javadpour MD
Jayarathnam Jayamohan MD
Balraj S. Jawar MD DSc
Lou Jurasky MD
Saad Abul Khairi MD
Brian H. Kopell MD
Hoang N. Le MD
Anthony Lee MD
Dae Kyu Lee MD
Gerald Michael Lemole Jr. MD
Sean M. Lew MD
Zvi Lidar MD
Jason I. Lifshutz MD
Benjamin C. Ling MD
James J. Lu MD
Chris A. Lycette MD
Neil Mahant MD
Ahmed Mahgoub MD
Reza Malek MD
Franklin Marden MD
Shaden Marzouk MD
P. Daniel McNeely MD
Amir Mehdizade MD
James Mick MD
Ashok Modha MD
Eduardo Moro MD
Tulio Pompeyo Murillo MD
Aurangzeb N. Nagy MD
Peter Nakaji MD
Prithvi Narayan MD
Narendra Nathoo MD
Ramon L. Navarro-Balbuena MD
Chiedoie Nwagwu MD

Dennis S. Oh MD
Greg Olavarria MD
Jeff Pan MD
Richard Parkinson MD
Ian F. Parney MD PhD
Richard G. Perrin MD
Gustavo Pradilla MD
Amit Ray FRCS
Dennis J. Rivet II MD
Luis Robles Lopez MD
Venkatraman Sadanand MD
Leo Salud MD
David I. Sandberg MD
Jason M. Schwalb MD
Askin Seker MD
Daniel Shedid MD
Raj K. Shrivastava MD
Fernando E. Silva MD
John Sinclair MD
Manoj Singrakhia MD
Edward Robert Smith MD
Matthew D. Smyth MD
Scott W. Soleau MD
Thomas C. Steineke MD PhD
Phillip B. Storm MD
Karin R. Swartz MD
Peyman R. Tabrizi MD
Nitin Tandon MD
Michael D. Taylor MD PhD
FRCS
Willard D. Thompson Jr. MD
Issada Thongtrangan MD
William E. Thorell MD
Hiroki Toda MD PhD
Shigeo Ueda MD
G. Edward Vates MD PhD
Kyle D. Weaver MD
Christopher J. Winfree MD
Eun Kyung Won MD
Kevin C. Yao MD
Gregory J. Zipfel MD

INTERNATIONAL MEMBERS

(92) (COUNTRY OF CERTIFICATION)
Galaleldin E. Abdelkarim MD
PhD (Sudan)
Paulo Henrique Aguiar MD PhD
(Brazil)
Mubasher Ahmed FCPS FICS
(Saudi Arabia)
Essam Abdulaziz Al Shail MD
(Saudi Arabia)
Ayman A Al-Banyan MD FRCS
(Saudi Arabia)
Safwat Moh'd Al-Dineh MD
(Saudi Arabia)
Carlos E. Alvarez MD (Peru)
Masaru Aoyagi MD (Japan)
J. Pedro Aros Ojeda MD (Chile)
Keizo Asakuno MD PhD (Japan)
Ejaz Aslam FCPS FICS
(Pakistan)

Yunus Aydin MD Prof (Turkey)
Samer Ayoubi MD (Syria)
Shyam Keshao Babhulkar MD
(India)
Deepu Banerji MD (India)
Pedro Oscar Bedoya II MD
(Chile)
Sanjay Behari MD (India)
Vladimir Benes Jr. MD PhD
(Czech Republic)
Alfredo Borrero Vega MD
(Ecuador)
Hakan Bozkus MD (Turkey)
Enrico P. Branca MD (South
Africa)
Albino P. Bricolo MD (Italy)
Neil Buxton FRCS (United
Kingdom)
Adrian Caceres Chacon MD
(Costa Rica)
Jose Augusto Camargo MD
(Brazil)
Antonio Guillermo Carrizo MD
PhD (Argentina)
Ramesh Chandra MD (India)
Cristo Chaskis MD (Belgium)
Ming-Teh Chen MD (Taiwan
ROC)
Byung Moon Cho MD AE (South
Korea)
Do-Sang Cho MD (South Korea)
Tae-goo Cho MD (South Korea)
Philippe Coubes MD PhD
(France)
Benedicte Dahlerup MD
(Denmark)
Antonio De Tommasi Sig MD
PhD (Italy)
Kate J. Drummond MBBS
FRACS (Australia)
Guhong Du MD (People's Rep
of China)
Alessandro Ducati MD (Italy)
Suzan Dyve MD (Denmark)
Alaa El Azzazi MD (Egypt)
Nico Emonds MD (Germany)
Whan Eoh MD PhD
(South Korea)
Jaime Espinosa MD (Panama)
Asdrubal Falavigna MD (Brazil)
Yvens Barbosa Fernandes MD
PhD (Brazil)
Helen M. Fernandes MD FRCS
(United Kingdom)
Daniel Freire Figueiredo MD
PhD (Brazil)
Gonzalo Fortuno Munoz MD
(Chile)
Kostas N. Fountas MD PhD
(Greece)
Patrick Peter Alexandre Fransen
MD (Belgium)

Jose Augusto R. Freire MD
(Brazil)
Takamitsu Fujimaki MD PhD
(Japan)
Makoto Goda MD PhD (Japan)
Javier N. Goland MD
(Argentina)
Andrei V. Golanov MD (Russia)
Francisco F. Goyenechea MD
(Cuba)
Luis David Guzman Moreno MD
(Mexico)
Ho-Shin Gwak MD
(South Korea)
Nedal Hejazi MD PhD
(Austria)
Keisuke Ishii MD (Japan)
Masanori Itoh MD (Japan)
Ajay Jawahar MD (India)
Kambiz Kamian MD (United
Arab Emirates)
Andrew A. Kanner MD (Israel)
Hiroshi Kanno MD PhD (Japan)
Hiroto Kawasaki MD (Japan)
Takamasa Kayama MD (Japan)
Issam S. Khoury MD
(United Arab Emirates)
Turker Kilic MD PhD (Turkey)
Hyung Dong Kim MD
(South Korea)
Moo Seong Kim MD DMSc
(South Korea)
Myung-Hyun Kim MD
(South Korea)
Sung Hak Kim MD PhD
(South Korea)
Theodoros Kombos MD
(Germany)
Janos Kopa MD PhD (Hungary)
Saul Krivoy MD (Venezuela)
Yury V. Kushel MD PhD
(Russia)
Joseph M. K. Lam MD FRCS
(Hong Kong)
Sergey Nikolay Larionov MD
(Russia)
Sun-il Lee MD (South Korea)
Florence F. Lefranc MD
(Belgium)
Stephen B. Lewis MD FRACS
(Australia)
Ramiro D. Lobato MD (Spain)
Pedro Lylyk MD (Argentina)
Tariq Rashid Malik MD
(Denmark)
Quentin J. Malone MD
(Australia)
Luigi Mariani MD (Switzerland)
Gianluca Marus MD
(South Africa)
John Henry A. McMahon FRCS
FRACS (Australia)

Continued on page 32

Continued from page 31

Ena Isabel Miller Molina MD (Honduras)
 Jorge Marcelo Mura MD (Chile)
 Michele Naddeo MD (Italy)
 Satoshi Nakasu MD (Japan)
 Jose Augusto Nasser dos Santos MD (Brazil)
 Christopher Nimsky MD PhD (Germany)
 Ryo Nishikawa MD (Japan)
 Masayoshi Ohi MD (Japan)
 Hidehiro Oka MD DMSc (Japan)
 Edgar G. Ordonez MD (Colombia)
 Armando Ortiz Pommier MD (Chile)
 Taisuke Otsuki MD PhD (Japan)
 Stephane Palfi (France)
 Jurgen Piek MD PhD (Germany)
 Benoit JM Pirotte MD (Belgium)
 Alfio P. Piva MD (Costa Rica)
 Alfredo Pompili MD (Italy)
 Ian K. Pople MD (England)
 Josep M. Prim MD PhD (Spain)
 Cherukuri V. Ravi Kumar MD (India)
 David P. Rojas Pinto MD FACS (Chile)
 David I. Rojas Zalazar MD (Chile)
 Ashraf Sadek MD (United Arab Emirates)
 Daniel Segui MD (Cuba)
 Lali H. S. Sekhon MD PhD (Australia)
 Jose M. Selman MD (Chile)
 Spyridon Sgouros MD FRCS (United Kingdom)
 Wafiq Shafiq MD (United Arab Emirates)
 Mohan Raj Sharma MD (Nepal)
 Takeo Shimizu MD DSc (Japan)
 Yong Sam Shin MD PhD (South Korea)
 Yoshiaki Shiokawa MD PhD (Japan)
 Khalid M. Ali Siddiqui MD FRCS (Saudi Arabia)
 Mariano Pablo Socolovsky MD (Argentina)
 Jun-Hyeok Song MD (South Korea)
 Ralf Steinmeier MD (Germany)
 Chain-Fa Su MD (Taiwan ROC)
 Masao Sugita MD (Japan)
 Basit Ali Syed MD (Saudi Arabia)
 Hiroshi Takahashi MD DMSc (Japan)
 Marcos S. Tagatiga MD Prof (Germany)
 Hiroshi Tenjin MD PhD (Japan)

Jayant Daniel Thorat MD (Singapore)
 Sheng-Hong Tseng MD (Taiwan ROC)
 Wouter Ralph Van Furth MD PhD (Netherlands)
 Tony Van Havenbergh MD (Belgium)
 William P. Vandertop MD PhD (Netherlands)
 Gabriel Vargas MD (Colombia)
 Neelam K. Venkataramana MS (India)
 Theodor S. Vesagas MD (Philippines)
 Jan Vesper MD (Germany)
 Angel Viruega MD (Argentina)
 Emmanuel Yao Voado MD (Belize)
 Kyu-Chang Wang MD PhD (South Korea)
 Yeou-chih Wang MD (Taiwan ROC)
 Chi Keung Wong FRCS (Hong Kong)
 Tai-Tong Wong MD (Taiwan ROC)
 Junichi Yamamoto MD (Japan)
 Nelci Zanon-Collange MD (Brazil)
 Yuanli Zhao MD (People's Rep of China)
 Gianluigi Zona MD PhD (Italy)
 Abdul-Rahim Zwayed MD (Yemen)

RESIDENT MEMBERS (200)

Miguel Adolfo Abdo Toro MD
 David S. Abramson MD
 Frank L. Acosta Jr. MD
 Matthew Adamo MD
 Bohran Al-Atassi MD
 Mir Jafer Ali MD
 Luis L. Almodovar MD
 Merdas Hajraf Al-Otaibi MD
 Aminullah Amini MD
 Matthew Ammerman MD
 Alfonso Arellano-Reynoso MD
 Tarun Arora MD
 Nicolas Flannery Arredondo MD
 Victor Manuel Arteaga Larios MD
 Clinton J. Baird MD
 Magdalena Banasiak MD
 Darric Baty MD
 Randy S. Bell MD
 Elisa J. Beres MD
 Bryan Bertoglio MD
 Joseph Beshay MD
 Sunita Venkata Bhamidipaty MD
 Rohit Rick Bhasin MD
 Hem Bhatt MD
 John K. Birknes MD

Donald Blaskiewicz MD
 Nathaniel Brooks MD
 Melandee D. Brown MD
 Steven Brown MD
 Hunter G. Brumblay MD
 Harlan J. Brunner MD
 John Grant Buttram Jr. MD
 Rafael F. Cardona MD
 Kawanaa D. Carter MD
 Aleksa Cenic MD
 Justin S. Cetas MD
 Sid Chandela MD
 Steven Won-Tze Chang MD
 Claude Edouard Chatillon MD
 Alok Mohan Chaudhari MD
 Hana Choe MD
 Mark Chwajol MD
 Jeremy N. Ciporen MD
 Michelle J. Clarke MD
 Francis J. Cloran MD
 Chaim B. Colen MD
 Nicholas D. Coppa MD
 Sabino J. D'Agostino DO
 Mark Dannenbaum MD
 Enrique Davalos-Ruiz MD
 Chavez Gabriela Del Rocio Chavez MD
 Sanjay Dhall MD
 Ricardo Diaz MD
 Daniel J. DiLorenzo MD
 Kimathi Doss MD
 Ian F. Dunn MD
 Joshua Dusick MD
 James Brad Elder MD
 Clara Raquel Epstein MD
 Lisa Fagan MD
 Christopher Farrell MD
 Raad Fayed MD
 Caleb Feliciano MD
 Albert J. Fenoy MD
 Manuel Ferreira MD
 Todd E. Fountain MD
 Daniel H. Fulkerson MD
 Steven C. Fulop MD
 Patrik Gabikian MD
 Ulises Garcia Gonzalez MD
 Cuauhtemoc Garcia-Pastor MD
 Hart P. Garner MD
 Kirash (Josh) Golshani MD
 Hector Gomez Acevedo MD
 Nestor R. Gonzalez MD
 Jorge Alvaro Gonzalez-Martinez MD PhD
 John Marshall Grant MD
 Jeffrey P. Greenfield MD
 Peter M. Grossi MD
 Troy D. Gust MD
 Amgad Hanna MD
 Paul W. Hartzfeld MD
 Alya Hasan MD
 Gregory Hawryluk MD
 Matthew O. Hebb MD PhD

Heather Hedstrom-Lara MD
 Sebastian Herrera MD
 Girish Hiremath MD
 Daniel J. Hoh MD
 Daniel Hoit MD
 Lewis Hou MD
 Kevin Hsieh MD
 Pascal Jabbour MD
 Eric M. Jackson MD
 Paul S. Jackson MD PhD
 James M. Johnston Jr. MD
 Jennifer Kang MD
 Matthew Kang MD
 Colin Kazina MD
 Paul Benjamin Kerr MD
 Anje Kim MD
 Jody Leonardo MD
 Peter Liechty MD
 Daniel A. Lim MD
 David D. Limbrick Jr. MD
 Timothy Emerson Link MD
 Benjamin Lo MD
 Alan Long MD
 Christian S. Lothes MD
 Terri K. L. Love MD
 Karl Lozanne MD
 Melissa Y. Macias MD
 Neil R. Malhotra MD
 Christopher E. Mandigo MD
 Glen Manzano MD
 Louis A. Marotti MD
 Juan Jose Martin MD
 Alexander Mason MD
 Vinnish Mathur MD
 Peter H. Maughan MD
 Louis E. McAdory MD
 Todd D. McCall MD
 Steve McCluskey MD
 Maria Brito McGee MD
 Jose A. Menendez MD
 Jonathan P. Miller MD
 Stefan Mindea MD
 David Moller MD
 Sergio Moreno-Jimenez MD
 Hugh Moulding MD
 Michael Musacchio MD
 M. Nathan Nair MD
 Anitha Nimmagadda MD
 Kim NJoroge MD
 Alfred T. Ogden MD
 Ibrahim Omeis MD
 Alexander M. Papanastassiou MD
 Samir Piyush Parikh MD
 Michael C. Park MD
 Min Park MD
 Stephen Pirris MD
 Alexander K. Powers MD
 Srinivas K. Prasad MD
 David Pryputniewicz MD
 Nazer H. Qureshi MD
 Milan Radojicic MD

Scott Rahimi MD
 Ralph Rahme MD
 Murisku Raifu MD
 Sharad Rajpal MD
 Andy J. Redmond MD
 Patrick Reid MD
 Violette M. Renard MD
 Sharon Rivas MD
 Andrew Roeser MD
 Aria Sabit MD
 Montell Salary MD
 Fortino Salazar MD
 Rodney Samuelson MD
 Rene O. Sanchez-Mejia MD
 Charles Sansur MD
 Michael David Sather MD
 Kelly Suzanne Schmidt MD
 Paul J. Schwartz PhD MD
 Daniel Sciubba MD
 Joshua Seinfeld MD
 Todd S. Shanks MD
 Charles Shieh MD
 Mohamed Shoukoury MD
 Mohammad Shurkairy MD
 Anthony H. Sin MD
 Vitaly Siomni MD
 Sheila Smitherman MD
 Daniel Spomar MD
 Martina Stippler MD
 Scellig Stone MD
 Nicholas Szerlip MD
 William James Thoman MD
 Keyne K. Thomas MD
 James Thurmond MD
 Gregory R. Toczyl MD
 Luis Tumalian MD
 Raymond Turner MD
 Asher Turney MD
 Kene Terence Ugokwe MD
 Kristen Upchurch MD
 Octavio Augusto Villasana MD
 Nilesh A. Vyas MD
 Randall James Warren MD
 Adrienne Weeks MD
 Ned E. Weiner MD
 J. Bradley White MD PhD
 Jobyna Whiting MD
 William Wirchansky MD
 Michael L. Wolak MD PhD
 Tom Lou Yao MD
 Ashraf Samy Youssef MD
 Hong Yu MD
 Joseph Zacko MD
 Hongyau Jenny Zou MD

ASSOCIATE MEMBERS (60)

Kathleen H. Baker CNRN
 Lesley J. Bitters CNRN
 David Black PA-C
 Ronald F. Budzik Jr. MD
 Barbara G. Cechanowicz PA-C

Continued on page 33

AANS Testimony Rules Rewritten

New Rules for Neurosurgical Medical/Legal Expert Opinion Services

The Board of Directors of the American Association of Neurological Surgeons (AANS) at its November 2003 meeting adopted the recommendation of the Professional Conduct Committee that a consolidated restatement of the AANS testimony rules be adopted. The consolidated restatement replaces both the 1983 Expert Witness Guidelines, and the 1987 Position Statement on Testimony in Professional Liability Cases. Below are the new Rules for Neurosurgical Medical/Legal Expert Opinion Services. They also are available online at www.AANS.org/about/membership.

Rules for Neurosurgical Medical/Legal Expert Opinion Services

Preamble

The American legal system often calls for expert medical testimony. Proper functioning of this system requires that when such testimony is needed, it be truly expert, impartial, and available to all litigants. To that end, the following rules have been adopted by the American Association of Neurological Surgeons. These rules apply to all AANS members providing expert opinion services to attorneys, litigants, or the judiciary in the context of civil or criminal matters and include written expert opinions as well as sworn testimony.

Impartial Testimony

■ The neurosurgical expert witness shall be an impartial educator for attorneys, jurors and the court on the subject of neurosurgical practice.

■ The neurosurgical expert witness shall represent and testify as to the practice behavior of a prudent neurological surgeon giving different viewpoints if such there are.

■ The neurosurgical expert witness shall identify as such any personal opinions that vary significantly from generally accepted neurosurgical practice.

■ The neurosurgical expert witness shall recognize and correctly represent the full standard of neurosurgical care and shall with reasonable accuracy state whether a particular action was clearly within, clearly outside of, or close to the margins of the standard of neurosurgical care.

■ The neurosurgical expert witness shall not be evasive for the purpose of favoring one litigant over another. The neurosurgical expert shall answer all properly framed questions pertaining to his or her opinions on the subject matter thereof.

Subject Matter Knowledge

■ The neurosurgical expert witness shall have sufficient knowledge of and

experience in the specific subject(s) of his or her written expert opinion or sworn oral testimony to warrant designation as an expert.

■ The neurosurgical expert witness shall review all pertinent available medical information about a particular patient prior to rendering an opinion about the appropriateness of medical or surgical management of that patient.

Compensation

■ The neurosurgical expert witness shall not accept a contingency fee for providing expert medical opinion services.

■ Charges for medical expert opinion services shall be reasonable and commensurate with the time and effort given to preparing and providing those services. ■

W. Ben Blackett, MD, JD, is chair of the AANS Professional Conduct Committee.

MEMBERSHIP

Continued from page 32

David Croteau MD
Colin P. Derdeyn MD
Huy M. Do MD
Donna Elliott RN CNOR
Owenita B. Escalada RN CNOR
Heather L. Forson PA-C
Deborah L. Galante RN CNOR
Tanya K. Guntly PA-C
Lotfi Hacein-Bey MD
James E. Harper RN MS NP
Michelle M. Heidel CNRN
Stephanie Hunter CNOR
Laurie Ann Johnson PA-C
Amy H. Kelly NP
Kent Kilbourn PA-C
Jeffrey R. Kirsch MD
Helen Kranzel ARNP
Richard Charles Krueger Jr.
MD PhD

Chris Kudron PA-C
Lambert K. Lai PA-C
Donald W. Larsen MD
Walter S. Lesley MD
Calvin B. Mah BN RN CNOR
Eileen M. Maloney Wilensky
MSN ACNP
Anne Matthews PA-C
Hamid M. Mehdizadeh MD
Philip M. Meyers MD
Darrin Mongeon PA-C
Patrick Mora PA-C
Gerri P. Morella-Zaleski RN CNOR
Sarah M. Munch PA-C MS
Eileen M. Ogle PA-C
Laura L. Oliver PA-C
Kristin C. Overton PA-C MS
Thomas N. Pajewski PhD MD
Bernie R. Racey PA-C

Jaime Rae Randles PA-C
Thomas M. Reilly MD
Cheryl B. Rowder PhD RN
Michael Saulino MD
Peter Schloesser MD
Shelly Schroff RN BSN CNO
Thomas J. Sernas PAC MS
Gregory H. Smith DO
Richard L. Smith PA-C
Julie Supple RN BSN
James C. Torner PhD
JoAnna Lyn Verhoest PA-C
Joan A. G. Walter PA-C
Teresa A. Weeks RN MSN FNP
Jody M. Wellwood MSN ACNP
Collier S. Wiese PA-C
Julie Wubs MSN ACNP
Andrew R. Xavier MD
Bruce Zablow MD

Could COSS Be Canceled?

Neurosurgeons Urge Support for Carotid Occlusion Surgery Study

WILLIAM J. POWERS, MD, WILLIAM R. CLARKE, PhD,
ROBERT L. GRUBB JR., MD, HAROLD P. ADAMS JR., MD

A major study to test the hypothesis that extracranial-intracranial (EC/IC) arterial bypass surgery will reduce subsequent ipsilateral ischemic stroke at two years, despite perioperative stroke and death, is currently underway at 22 centers in the United States. This randomized, non-blinded, controlled clinical trial, known as the Carotid Occlusion Surgery Study (COSS), is funded by the National Institute of Neurological Disorders and Stroke. However, recruitment has been so slow that this important study is in danger of being closed down.

Carotid artery occlusion is estimated to cause 61,000 first ever strokes and 19,000 transient ischemic attacks (TIAs) per year in the United States. The overall rate of subsequent stroke is 7 percent per year for all stroke victims and 5.9 percent per year for those suffering ipsilateral ischemic strokes. These risks persist in the face of platelet inhibitory drugs and anticoagulants. Prevention of subsequent stroke in patients with carotid artery occlusion remains a difficult challenge.

PET to ID Stroke's Cause

The technique of EC/IC arterial bypass surgery was developed in the late 1960s and applied to patients with carotid occlusion in an attempt to prevent subsequent stroke by improving the hemodynamic status of the cerebral circulation normally supplied by the occluded vessel. In 1977 an international multicenter randomized trial of EC/IC bypass showed no benefit for the prevention of subsequent stroke among 808 patients with symptomatic carotid occlusion. This trial, however, has been criticized for failing to identify and separately analyze the subgroup of patients with hemodynamic compromise in whom surgical revascularization might be beneficial. Unfortunately, at the time that this trial was conducted there was no reliable and proven method for identifying a subgroup of patients in whom cerebral hemodynamic factors were of primary importance in causing subsequent stroke.

Neuroimaging techniques now have made it possible to evaluate cerebral hemodynamics in patients with carotid occlusion. Two prospective natural history studies have demonstrated that patients with symptomatic carotid artery occlusion who have increased oxygen extraction fraction (OEF) measured by positron emission tomography (PET) also have a high rate of subsequent stroke within the next two years if they are maintained on medical therapy. Depending on the precise clinical and PET criteria used, the two-year ipsilateral stroke rates ranged from 26 percent to 57 percent. In contrast, the comparable stroke rates in the patients with normal OEF were 5 percent to 15 percent, corresponding to absolute rate differences of 21 percent to 42 percent, and relative rate differences of 75 percent to 80 percent. Since EC/IC bypass has been shown to return areas of increased OEF to normal in patients with carotid occlusion, it is important to per-

"We will not get another chance to prove the value of EC/IC bypass for stroke prevention."

form a new trial that is restricted to patients with symptomatic carotid occlusion and increased OEF identified by PET to determine if EC/IC bypass can produce comparable reductions in stroke risk.

Comparing the Costs

We created a Markov chain model to compare the costs and effectiveness of medical treatment alone in patients with symptomatic carotid occlusion to their treatment using PET screening followed by EC/IC bypass if their OEF was elevated. PET screening followed by EC/IC bypass was shown to prolong quality-adjusted survival when compared to medical therapy alone. Over a 10-year span, the gain in quality-adjusted years was 49 per 100 patients screened, with minor cost savings. This result is not surprising given the high cost of stroke in the medically treated patients. Finally, the cost of PET was more than offset by reducing the number of operations performed on patients who were at low risk for subsequent stroke, thus reducing the attendant risk and expense.

Thus, there is good scientific, clinical and economic evidence to proceed with the COSS as quickly as possible.

Assisting in the COSS

We ask all of our neurosurgical colleagues to assist in this important study by referring their eligible patients to participating centers. Major eligibility criteria are:

- atherosclerotic occlusion of one or both carotid arteries;
- hemispheric TIA or mild-to-moderate stroke (modified Barthel index of 12 or greater) in the territory of an occluded carotid artery within 120 days; and
- increased cerebral OEF measured by PET image in the cerebral hemisphere distal to the symptomatic carotid artery occlusion.

COSS will pay the costs of PET and of the EC/IC bypass surgery. Further details and a list of participating centers can be found at www.cosstrial.org, or by contacting Carol Hess, the project coordinator, at carol@npg.wustl.edu.

We will not get another chance to prove the value of EC/IC bypass for stroke prevention. Failure to complete this study will permanently consign the bypass procedure to the history books and to the list of procedures not reimbursed by Medicare. ■

William J. Powers, MD, principal investigator, and Robert L. Grubb Jr., MD, principal neurosurgical investigator, are at Washington University, St. Louis, Mo. William R. Clarke, PhD, principal investigator of the Biostatistics and Data Management Center and Harold P. Adams Jr., MD, are at the University of Iowa, Iowa City, Iowa.

Baseball, Small Town,

Disparate Interests Influence 73rd President's Annual Meeting

MANDA J. SEAVER

When A. John Popp, MD, contemplated a theme for the 2004 Annual Meeting of the American Association of Neurological Surgeons (AANS), taking place May 1-6, a variety of interests beyond neurosurgery were brought to bear in his choice of "Advancing Patient Care Through Technology and Creativity."

"At the core of the AANS Annual Meeting are of course the scientific sessions that shed light on the unknown," said Dr. Popp. "The meeting also offers the latest in technology available on our exhibit floor, and hands-on techniques as demonstrated in our practical clinics. But it takes the particular mind of the neurosurgeon to synthesize all of the information, technology and techniques to make it all come together meaningfully in practice for patients."

Dr. Popp, who enjoys carrying out the history and physical of new patients because it helps him make a connection with them, was first inspired in his patient-centered approach by the family doctor in his hometown of Perry, N.Y.

"Dr. Chapin was passionate about taking care of patients," Dr. Popp remembered. "That's why I went into medicine. I admired that he was knowledgeable about the practice of medicine, approachable, on call 365-7—an institution like the school and fire department, an icon of the community."

Even so, Dr. Popp's life took some interesting turns in the progress from Perry, a village near Buffalo once known for its textile mills, to Albany Medical College, where he currently is the Henry and Sally Schaffer Chair of Surgery.

In his youth he developed dual interests in music and baseball, whether practicing a Chopin Ballade or his knuckle-ball. He earned an academic scholarship to the University of Rochester, home of Eastman School of Music, where he was the starting pitcher. But after earning his A. B. degree in 1963, Dr. Popp decided to pursue neither piano nor pitching, choosing instead to study medicine at Albany Medical College.

Dr. Popp remembered that his introduction to neurosurgery was a revelation. "It wasn't until a neurosurgeon came to my neuroanatomy class and talked about it that I became interested in this specialty," he said. "I was immediately and strongly attracted to the high integration of neurosurgery with anatomy, and to the activist approach to patient care wherein problems are identified and solved."

During medical school, Dr. Popp was able to travel to the Philippines to study parasitic illnesses in a remote village of the mountain province of Luzon, courtesy of a Smith Kline and French Fellowship. He continued this line of inquiry while serving his internship at The Queen's Hospital in Honolulu, Hawaii, before returning to Albany to complete his surgical residency.



A. John Popp, MD, conducts a neurological exam with a patient.

From 1969 to 1971 Dr. Popp served as a U.S. Air Force captain stationed at the Department of Surgery at Tachikawa Air Force Hospital. He then returned once again to Albany, this time for his neurosurgical residency, to study with Richard Lende, MD, and Robert Bourke, MD, after which he moved on to a fellowship in microvascular surgery at the Davis Medical Center in San Francisco. Dr. Popp has since specialized in the treatment of vascular lesions and brain tumors.

In 1975 Dr. Popp was named assistant professor of neurosurgery at Albany Medical Center. He involved himself in building a practice and in research, and in 1986 he was named to his current role as the Henry and Sally Schaffer Chair of Surgery. He additionally heads the neurosurgery training program and the Neurosciences Institute.

Over the years Dr. Popp has taken on a variety of leadership roles for medical societies, among them the New York State Neurosurgical Society, Society of Neurological Surgeons, American Board of Neurological Surgery and the Council of State Neurosurgical Societies. At the AANS he has held several offices in addition to his current role 2003-2004 AANS president, including serving as editor of the AANS *Bulletin* and chair of the AANS/CNS Washington Committee. Dr. Popp additionally is the recipient of many honors; most recently Albany Medical College honored him as the 2004 Distinguished Alumnus, and the Schaffer Foundation endowed a chair in his honor at the Neurosciences Institute.

Reflecting on more than 30 years in neurosurgery, Dr. Popp said that he most enjoys "the diversity of this career that allows one to pursue different aspects of neurosurgery: patient care, education, research, administration, and service." While heavily involved in administration, he said that he mostly enjoys the clinical aspects of

Chopin Ballade and Neurosurgery

neurosurgery: evaluating new patients and doing neurosurgical operative procedures.

He is proudest, though, of his work as an educator. Dr. Popp has given innumerable national and international presentations and published many journal articles; he also is the author of two books.

In his work with young neurosurgeons he seeks to impart the art of listening, a skill well developed in the musician and in the clinician. "William Osler, who is revered for his clinical and diagnostic prowess, reportedly advised doctors that if they listen to the patient, the patient will give you the diagnosis," said Dr. Popp. "My experience tells me that he was absolutely correct, and further, that connecting with patients, establishing a relationship with them, is an important part of providing them with the best care."

Of his success in conveying this experience to his students, he commented, "I am touched when former residents say that they learned what is important in neurosurgery from me, such as how to talk with patients."

He remarked upon the extent to which technological advances have changed the practice of neurosurgery since he embarked on his

career. "When I started my residency, we often would spend all night doing angiograms for trauma patients looking for a subdural hematoma," he said. "When CAT scans were introduced in the early 1970s, they totally changed the way we worked."

While technology has advanced exponentially in the last 30 years, Dr. Popp believes that the makings of the excellent neurosurgeon have changed very little. "Technology is a wonderful tool, but it sometimes can be misleading," he said. "Excellent neurosurgeons bring all of their experiences in aggregate to bear, including character, focus, talent, intelligence and commitment."

Like the nervous system itself, neurosurgeons are able to puzzle together sometimes disparate information, comprehending it and making connections that lead to healing for a patient. "I have visualized my role as that of a conductor, taking in information from various sources, synthesizing it, and creating a particular course of treatment that is right for a patient," he explained. "It is the consummate intellectual and spiritual challenges of neurosurgery that make this career such a rewarding one."

Manda J. Seaver is staff editor of the *Bulletin*.

Money Makes Miracles Happen

Neurosurgical Research and Education Get 100 Percent of Funds

What happens to the money donated to the Neurosurgery Research and Education Foundation (NREF) of the American Association of Neurological Surgeons (AANS)?

Voluntary donations from AANS members and the general public fund NREF and important research that impacts the lives of those suffering from epilepsy, stroke, brain tumors, spinal disorders, head injuries and low back pain. In 2003, 100 percent of every dollar contributed by individuals and corporate partners to NREF directly supported neurosurgical medical research and education.

NREF grant awardees are the neurosurgeons of tomorrow. Each year the NREF Scientific Advisory Committee reviews applications from Young Clinician Investigators and Research Fellows. In 2003, NREF awarded \$410,000 in grants to eight fellows.

One award recipient, Judy Huang, MD, currently is working on research that will provide additional insights into how estrogen effectively mediates neuroprotection. This research may lead to a novel pharmacologic strategy of combining an anti-inflammatory agent with hormonal replacement in stroke prevention.

Another award recipient, John Kuo, MD, at the University of Toronto, is researching new diagnostic and therapeutic strategies for medulloblastoma, the most common malignant brain tumor in children. The disease itself and current treatments (aggressive surgery and adjuvant therapies), cause significant morbidity and mortality. Detailed understanding of the molecular pathogenesis of medulloblastoma is expected to lead to better disease diagnosis and staging and will make possible new therapeutic approaches.

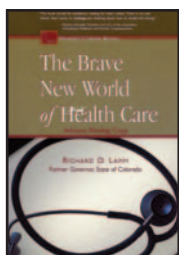
Dr. Huang and Dr. Kuo are able to conduct this research because of those who have invested in the future of neurosurgery research and education. For 2004, the Scientific Advisory Committee reviewed 49 grant applications—a record number—and awarded nine grants totaling \$400,000. NREF's ability to fund research is dependent on donations, so while 100 percent of donations again were awarded through grants, many deserving applications unfortunately could not be funded.

Additional information about current NREF grant recipients and how to make a gift is available on the Web site at www.AANS.org/research, or from Michele Gregory, director of development, at toll-free (888) 566-AANS (2267). ■

Terri Bruce is AANS development coordinator.

Is U.S. Healthcare Unsustainable?

Facing Economic Realities



The Brave New World of Health Care,
by Richard D. Lamm,
Fulcrum Publishing,
Golden, Colo., 2004,
144 pp., \$12.95

Richard Lamm, former governor of Colorado and Cushing orator at the 1986 Annual Meeting of the American Association of Neurological Surgeons (AANS) in Denver, looks at healthcare in the United States and concludes that it is “unsustainable, unaffordable, and inequitable, and needs to be substantially amended and revised.”

Facing Economic Realities

He begins by describing our system of healthcare financing as the crime of the century and the greatest embezzlement in all of history. He calls the funding of Social Security and Medicare a giant Ponzi scheme in which the federal government collects taxes for Medicare and Social Security and spends the money on current social benefits and other government services. In his view, the Medicare and Social Security trust funds consist entirely of IOUs and do not reduce the fiscal obligations of future generations by one penny.

Then Lamm examines our present healthcare system, which he acknowledges has many wonderful services but is incredibly expensive. He sees the system too often substituting technology for other healthier strategies; consequently, healthcare is out of reach for many Americans. He shows that we cannot do politically what needs to be done economically by pointing out that even though we

spend \$5,500 per year per capita, we cannot pay for everything that modern medicine can deliver. He believes that training physicians to be patients' advocates produces healthcare, but not necessarily health. He suggests that health may be measured more accurately by such socioeconomic factors as education, income, nutrition, housing, sanitation, and working conditions.

Weaknesses in the System

In Lamm's view, public policy negligence has led to funding excesses and system inadequacies. His six-count indictment of the U.S. healthcare system cites:

- more than 40 million uninsured Americans;
- insurance coverage for all seniors regardless of wealth;
- overfunding of medicine and underfunding of public health;
- a medical education system that overproduces specialists;
- overcapacity of hospital beds; and
- the misperception that healthcare is a right.

To illustrate his points, Lamm relates two contrasting stories involving state governors. In 1995, the governor of Virginia, James Gilmore, intervened in the care of a patient in a permanently vegetative state to prevent the wife from removing her husband's feeding tube. He contrasts that with the story of John Kitzhaber, both a physician and former governor of Oregon, who championed his state's Medicare prioritization system. *Dr. Kitzhaber* could not ration medicine, but *Gov. Kitzhaber* was forced to do so because cost must be a consideration in virtually every public policy decision.

Attending to the Health of the Group

The author continues by explaining the dilemma that no matter how we organize and fund healthcare today, our medical miracles outpace our ability to pay. Therefore, he believes, death remains the ultimate economy, since everyone saved by a medical miracle will die one day. The author himself has been involved in the well-publicized “duty to die” controversy, and he relates the interesting story in this book.

Lamm urges us to rebuild the house of healthcare by focusing on the health of the group rather than the health of the individual. He points to the World Health Organization's emphasis on universal coverage meaning coverage of all, not coverage of everything.

A New Moral Vision

Anyone familiar with Dick Lamm expects that he will not conclude this book without giving us his solutions. He begins by suggesting fixes for Social Security, Medicare and retirement, but he then hones in on controlling healthcare costs. Some of the suggestions will appeal to physicians—such as limiting malpractice and administration overhead; others will not—such as limiting the supply side of healthcare. He ends with a very thoughtful summary of his conclusions, providing a new moral vision for healthcare and laying out the essential elements for that vision.

Former Rep. Patricia Schroeder is quoted on the dust jacket as saying that this book should be mandatory reading for every citizen. I won't go that far, but I agree that all neurosurgeons ought to read it. ■

Gary Vander Ark, MD, is the director of the Neurosurgery Residency Program at the University of Colorado and president of the Colorado Medical Society. He is the 2001 recipient of the AANS Humanitarian Award.

Maximizing Clinical Productivity

Academic Setting Faces Its Challenges

In an academic neurosurgery department, maximizing clinical income and productivity is an important, if not primary, goal. This goal must be balanced with the concurrent academic missions of education and research, and be attained working within the structure of an academic medical center.

Using examples from the Department of Neurosurgery at the Medical College of Georgia, this article identifies some obstacles to clinical productivity and suggests methodologies that can be instituted to overcome the perceived obstacles, or in some cases to utilize them.

Barriers to Clinical Productivity

Our department faces several obstacles to clinical income and productivity maximization. First, a significant portion of our patient base emanates from admissions to our emergency department, which is a level I trauma center. This results in a payer mix that is high in uninsured patients requiring neurosurgical intervention.

Second, the faculty members in our department work with residents and students; teaching these young doctors the nuances of the art of neurosurgery requires dedicating more time to each procedure. Moreover, the neurosurgeons participate in clinical and basic research and assume administrative duties that are commensurate with the academic medical center framework, siphoning time away from billable procedures.

Third, a centralized group practice manages all the billing and collecting activity for all the clinical science departments in the medical school. This results in flat "taxes" that disproportionately shift many of the billing office costs onto the higher income producers.

Finally, we have a very active functional neurosurgery program. However, com-

pared to spine cases with instrumentation, functional neurosurgery generates very low relative value units (RVU) per case, and thus, comparatively less revenue.

Strategies That Have Shown Success

While the above factors constantly push against maximal clinical productivity, the following strategies have shown success in counterbalancing the trend.

The main advantage of an academic practice is the clear identification and recognition of a true physician leader, which is the chair of the department. The chair has the authority to set salaries, establish work responsibilities, evaluate performance, and set expected clinical productivity goals with each faculty member.

Maximizing the neurosurgeon's time out of the operating room is accomplished by employing physician assistants and nurse clinicians as well as other physicians. Currently, we employ a physical medicine and rehabilitation physician and are in the process of hiring a neurointensivist. These physicians additionally work with residents and students, helping to fulfill our teaching mission.

Affiliation with a large academic medical center generates referrals from outside physicians to experts not found in the community, and "built in" referrals due to school loyalty. Additionally, the specialty practices within the academic medical center initiate many referrals. Further, our department benefits from high levels of investment in technology and capitalization, giving us access to the advanced equipment and technology that additionally attracts referrals.

Salary incentive plans encourage productivity. Our typical salary incentive plan guarantees a base salary and an incentive payment contingent on a percentage of the faculty's individual contribution to the department.

We utilize a centralized billing and collection system. At first blush, this would appear to be contrary to maximizing billing and collecting on claims. However, if managed appropriately, it can result in very competitive billing practices. Some of our specific strategies include:

- Regularly measuring the billing plan's performance based on accounts receivable days, bad debt percentages, net collection rates, and accounts receivable over 90 days.

- Faculty members taking an active role in the billing process to ensure optimal reimbursement. This includes personally appealing denials, reviewing final billed procedures to ensure correct Current Procedural Terminology (CPT) coding, and completing annual coursework in CPT coding updates in their subspecialty.

- Physically locating as many of the front-end billing personnel as possible in the department's faculty offices. This has resulted in a positive synergy between the billing personnel and the physicians.

- Negotiating either a cap on or reductions in business office expenses. The expense charge per transaction for a neurosurgical practice is far greater than for other specialties, and the final business office expenses should be prorated to reflect this disparity.

In conclusion, there are strategies that can be implemented to overcome the clinical productivity obstacles facing neurosurgeons in an academic medical center. It takes strong management, perseverance, and a focus on the entire department to realize these goals. ■

Bill Hamilton, MBA, MHA, is administrative director of the Neuroscience Center at the Medical College of Georgia in Augusta, Ga. **Mark Lee, MD, PhD**, is chair of the Department of Neurosurgery at the Medical College of Georgia.

AANS/CNS Section Sessions at the AANS Annual Meeting

Tuesday, May 4,
3-5 PM

- Cerebrovascular
- Neurotrauma & Critical Care
- Pediatrics
- Spine
- Stereotactic and Functional

Wednesday, May 5,
3-5 PM

- History
- Pain
- Peripheral Nerves
- Tumor

Women in Neurosurgery Reception

Tuesday, May 4,
5:30-7 PM

- Ruth Kerr Jacoby Lecture
- Greg Mortenson, U.S. Army medic

Young Neurosurgeons Luncheon

Monday, May 3,
1-3 PM

A. Leland Albright, MD, and
Nathaniel Zinsser, PhD

AANS News

Pinnacle Partners Program Offers VIP Benefits A new giving program—Pinnacle Partners—allows corporations to surpass traditional sponsorship opportunities with the AANS and establish additional recognition as well as exposure to the broadest possible audience. Companies aligned with the AANS as Pinnacle Partners are entitled to specific “VIP” benefits, and Pinnacle Partners represents the highest level of support for AANS annual meetings, education and practice management courses, various communications vehicles, and the Neurosurgery Research and Education Foundation. Detailed Pinnacle Partners information is available at www.AANS.org/corporate/aans/pinnacle.asp or by calling (847) 378-0540.

Two New Patient Brochures Tackle Brain Tumors, Diagnostic Testing Two new patient guides augment the line of patient education brochures from the AANS. “A Patient’s Guide to Brain Tumors” outlines common disorders associated with the condition and what patients can expect during recovery from surgery; addresses conservative treatment options; describes surgical treatment; and discusses the surgeon’s role in treatment. A “Patient’s Guide to Diagnostic Testing” explains the common technologies and tests used in diagnosing neurosurgical disorders. Each brochure also includes a glossary of terms commonly associated with the disorder or topic at hand. Written in close consultation with AANS members who are certified by the American Board of Neurological Surgery, the brochures are designed to provide patients and their families with credible information they can take home with them. Additional information on the series is available in the AANS Online Marketplace, www.AANS.org/marktpl, and in the online Library, article ID 9925.

AANS Selects 2004 Van Wagenen Fellow The Van Wagenen Fellowship and Selection committees, awarded the 2004 William P. Van Wagenen Fellowship to Stephen M. Russell, MD, of New York University. Dr. Russell plans to study the molecular pathophysiol-

ogy of viral infection and reactivation in peripheral and cranial nerve sensory ganglia in the laboratory of Prof. Michael Strupp at the Ludwig-Maximilians University’s Klinikum Grosshadern in Munich, Germany. Awarded by the AANS annually since 1968, the William P. Van Wagenen Fellowship provides funding for post-residency study in a foreign country for a period of six to 12 months. For 2004 the award stipend has been increased to \$60,000 of which \$15,000 is provided to the host university, hospital or laboratory for the 12-month fellowship. More information about past fellows or the William P. Van Wagenen Fellowship is available at www.AANS.org/research/fellowship.

AANS Links Residents, Young Neuros to Resources The AANS introduces two new areas of www.AANS.org that focus on the needs of residents and young neurosurgeons. Each area identifies educational programs, research opportunities, annual meeting activities and member benefits tailored to residents or neurosurgeons entering practice. Publications and newsletters of special interest to residents and young neurosurgeons also are featured, as are links to information of particular importance to them, such as board certification, resident match programs, research opportunities, and outside organizations such as the American Board of Neurological Surgery, the National Institutes of Health, National Institute of Neurological Disorders and Stroke, and Medline. Residents in North America can become AANS members for free and take advantage of member benefits, which are listed online at www.AANS.org/membership/membership_b.asp. Residents and young neurosurgeons can send suggestions for their new areas of www.AANS.org to ktc@AANS.org, or call (888) 566-AANS (2267).

Pay AANS and Section Dues Online Members of the AANS now can pay their AANS or section dues online. This convenient option is available at www.MyAANS.org through the Online Payments tab. After logging in, members or applicants can pay dues by submitting a credit card number over a secure connection. They also can check that a payment has been received and posted, and print out an invoice. Member ID numbers or additional information is available by contacting AANS Member Services.

AANS PLI Program

Preferred Rates, Committee Oversight Offer Value

The American Association of Neurological Surgeons (AANS) partners with organizations providing optional services through programs administered by outside companies to offer members additional benefits. These programs help improve practice performance, or simply save members money on professional services through member discounts. One such program is the AANS Professional Liability Insurance Program administered through The Doctors' Company (TDC).

The AANS Professional Liability Insurance Program provides premium discounts for AANS members with favorable claims histories, broad liability limit options, a consent-to-settle provision, and coverage for *locum tenens*. Free retirement tail coverage is offered to policyholders on full retirement at age 55 or older, and who have been insured for five years, or who suffer death or permanent and total disability. All benefits are subject to underwriting approval and state law.

Founded by doctors for doctors, The Doctors Company has earned consecutive ratings in the A/Excellent range from insurance

industry ratings agency A.M. Best since 1986. Detailed information is available at www.thedoctors.com/company/endorsement/aans.asp or by calling (866) 483-2435.

The AANS Professional Liability Committee oversees the program, acting as an ombudsman for AANS members.

"The committee fields inquiries into underwriting decisions, advocates member issues to TDC, and provides TDC with guidance on neurosurgical risk issues," said John A. Kusske, MD, committee chair. "Our principal role is to oversee this program and educate TDC on the risks members face each day."

Neurosurgical panel reviews, on which the committee participates, form the basis of risk management bulletins, publications, and services available to members through this program. The committee also offers members guidance on how to practice in the current litigious environment and developed the "Medical Liability: How to Develop an Action Plan," breakfast seminar 301 at the 2004 AANS Annual Meeting in Orlando. ■

Kathleen T. Craig is AANS marketing director.



American
Association of
Neurological
Surgeons

AANS LEADERSHIP 2003-2004

OFFICERS

A. John Popp, MD, *president*
Robert A. Ratcheson, MD, *president-elect*
Randall W. Smith, MD, *vice-president*
Jon H. Robertson, MD, *secretary*
Arthur L. Day, MD, *treasurer*
Roberto C. Heros, MD, *past president*

DIRECTORS AT LARGE

Steven L. Giannotta, MD
L.N. Hopkins III, MD
Paul C. McCormick, MD
Richard A. Roski, MD
James T. Rutka, MD

REGIONAL DIRECTORS

Gene H. Barnett, MD
Paul E. Spurgas, MD
Frederick D. Todd II, MD
Clarence B. Waltridge, MD

EX-OFFICIO

James R. Bean, MD
Frederick A. Boop, MD
G. Rees Cosgrove, MD
Regis William Haid Jr., MD
Donald W. Marion, MD
Mark R. McLaughlin, MD
Andrew D. Parent, MD
Oren Sagher, MD
Raymond Sawaya, MD
Michael Schulder, MD
Warren R. Selman, MD

LIAISONS

Deborah L. Benzil, MD
Vincent C. Traynelis, MD
W. Brian Wheelock, MD

AANS EXECUTIVE OFFICE

5550 Meadowbrook Drive
Rolling Meadows, IL 60008
Phone: (847) 378-0500
(888) 566-AANS
Fax: (847) 378-0600
E-mail: info@AANS.org
Web site: www.AANS.org

Thomas A. Marshall, *executive director*
Ronald W. Engelbreit, CPA,
deputy executive director
Susan M. Eget, *associate executive director-governance*
Joni L. Shulman, *associate executive director-education*

DEPARTMENTS

Communications, Heather L. Monroe
Development, Michele S. Gregory
Information Services, Kenneth L. Nolan
Marketing, Kathleen T. Craig
Meeting Services, Lisa M. Sykes, CMP
Member Services, Chris A. Philips

AANS/CNS WASHINGTON OFFICE

725 15th Street, NW, Suite 800
Washington, DC 20005
Phone: (202) 628-2072
Fax: (202) 628-5264
Web site: www.AANS.org/legislative/aans/washington_c.asp

EVENTS

Calendar of Neurosurgical Events

2004 Annual Meeting of the American Association of Neurological Surgeons

May 1-6, 2004
Orlando, Fla.
(847) 378-0500
www.AANS.org/annual

Joint APS and Canadian Pain Society Annual Meeting

May 6-9, 2004
Vancouver, British Columbia, Canada
(847) 375-4715
www.ampainsoc.org

American Board of Neurological Surgery Meeting

May 19-22, 2004
New Orleans, La.
(713) 790-6015
www.abns.org

Spine Review Hands-On 2004: A Comprehensive Approach for Neurosurgeons

May 19-25, 2004
Cleveland, Ohio
(800) 223-2273 ext. 53449
www.clevelandclinic.org/neuroscience

Society of Neurological Surgeons Annual Meeting⁺

May 22-25, 2004
New Orleans, La.
(507) 284-2254
www.societyofns.org

International Society for the Study of the Lumbar Spine (ISSLS) Annual Meeting

May 31-June 6, 2004
Porto, Portugal
(32) 9-344-39-59
www.issls.org

UCLA Shaped Beam Radiosurgery/IMPT and Functional Neurosurgery Tutorial Course

June 1-5, 2004
Los Angeles, Calif.
(310) 267-5217

American Society of Neuroradiology 42nd Annual Meeting

June 5-11, 2004
Seattle, Wash.
(630) 574-0220
www.asnr.org

Neurosurgical Society of America 57th Annual Meeting⁺

June 6-9, 2004
Santa Fe, New Mexico
(307) 266-4000

Canadian Congress of Neurological Sciences 2004 (CCNS)

June 8-12, 2004
Calgary, Alberta, Canada
(403) 229-9544
www.ccns.org

2nd Annual ISSCR Meeting

June 10-13, 2004
Boston, Mass.
(847) 509-1944
www.isscr.org

Rocky Mountain Neurosurgical Society⁺

June 12-16, 2004
Big Sky, Mo.
(801) 581-6550

The Endocrine Society Annual Meeting

June 16-18, 2004
New Orleans, La.
(301) 941-0200
www.endo-society.org

5-Day Gamma Knife Radiosurgery Training

June 21-25, 2004
Cleveland, Ohio
(800) 223-2273 ext. 47591
www.clevelandclinic.org/neuroscience

16th Congress of the European Society for Stereotactic and Functional Neurosurgery

June 23-26, 2004
Vienna, Austria
(43) 1-40400-4565
www.come2vienna.org

5th World Stroke Congress

June 23-26, 2004
Vancouver, British Columbia, Canada
(41) 22-908-0488

8th Annual Conference of the International Society for Computer Aided Surgery

June 23-26, 2004
Chicago, Ill.
(49) 7742-922-434

Epilepsy Surgery Techniques

July 16-17, 2004
Cleveland, Ohio
(800) 223-2273 ext 53449
www.clevelandclinic.org/neuroscience

Joint Annual Meeting of the Penn. Neurosurgical Society and the E. Penn. Chapter American Association Neuroscience Nurses

July 16-17, 2004
Hershey, Pa.
(717) 558-7750, 1483

⁺These meetings are jointly sponsored by the American Association of Neurological Surgeons. A frequently updated Meetings Calendar and continuing medical education information are available at www.AANS.org/education.

Upcoming AANS Courses

For information or to register call (888) 566-AANS or visit www.AANS.org.

■ Managing Coding & Reimbursement Challenges in Neurosurgery

May 21-22, 2004 Boston, Mass.
Aug. 27-28, 2004 Chicago, Ill.
Sept. 24-25, 2004 Philadelphia, Pa.
Nov. 12-13, 2004 San Diego, Calif.

■ Neurosurgery Review by Case Management: Oral Board Preparation

May 16-18, 2004 New Orleans, La.
Nov. 7-9, 2004 Houston, Texas

■ Neurosurgical Practice Management

May 23, 2004 Boston, Mass.
June 11-12, 2004 Chicago, Ill.
Aug. 29, 2004 Chicago, Ill.

■ Beyond Residency: The Real World

May 1, 2004 Orlando, Fla.