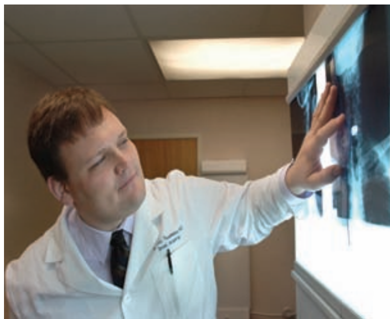

Eeric Truumees, MD
William Beaumont Hospital and the
Beaumont Comprehensive Spine Center
Royal Oak, MI

MESSAGE FROM THE MEDICAL EDITOR

Docs on the Bay: The San Francisco NASS Meeting

"San Francisco has only one drawback. 'Tis hard to leave."
Rudyard Kipling

"The only directions you need in San Francisco are uphill and downhill."
Anonymous

"San Francisco is 49 square miles surrounded by reality."
Paul Kantner, member of the Jefferson Airplane

Many of us favor some form of health care reform, but we are concerned that the interests of spine patients and their care providers are at risk.

Welcome to the Annual Meeting edition of *SpineLine.* We hope to see you at the NASS meeting in San Francisco. Participation in organized medicine is critically important in this year of change, but so is getting out and enjoying a truly world-class city. See the Golden Gate Bridge from below and both sides. Go to Alcatraz. Sign-up for *SpineLine!*

At this writing, the fate of the Obama/Baucus health care overhaul remains unknown, but physician confidence in the future seems shaky. As spine practitioners, we have been surprised by reports that vertebroplasty confers no benefit over placebo. Will these data be used to deny procedures in the future? We have already seen near implosions of other promising new spine technologies such as cervical disc replacement due to payor denial and inadequate funding.

Will outcomes-based reimbursement stifle innovation or will this layer of bureaucracy protect patients from unscrupulous "innovators" subjecting their patients to unproven techniques? To answer these questions, we look at lasers, acupuncture, kyphoplasty and a host of other topics at the interface between scientific medicine and the medicolegal and socioeconomic environments in which it is practiced.

Who are We and What do We Think?

Many of us favor some form of health care reform, but we are concerned that the interests of spine patients and their care providers are at risk. While well-meaning individuals may disagree, especially as it regards complex legislation and the titanic economics of American health care, close examination of the proposals and our leaders' rhetoric raises red flags.

Recently, in one of many statements impugning surgeons' ethics, President Obama claimed that we receive $50,000 for amputating a diabetic leg. These surgeons, ostensibly then, do not care whether their patient receives the appropriate preventive care. While Obama may be right that preventive care is under-reimbursed, he is either mistaken as to the economics of surgical practice (I believe that an amputation pays considerably less than $1,000) or this was a jaundiced attempt to employ "divide and conquer politics" between various groups of physicians.

Are we just greedy profiteers leeching off of the misery of others? The Center for Studying Health System Change (HSC) recently published its 2008 Health Tracking Physician Survey.[1] This Robert Wood Johnson Foundation–funded survey included more than 4,700 physician responses (62% response rate). The survey found that we are an increasingly diverse group. Especially in the

under-40 group, the percentage of minorities and women is increasing. While 22% received their medical training outside the US, 9 in 10 were board certified. About 6 in 10 provide charity care. In the month preceding the survey, they spent nearly 10 hours or more than 4% of their medically related time on free care. Slightly more than half reported that their practices were accepting new Medicaid patients; 75% accept new Medicare patients and almost all contract with managed care plans.

As exemplified by our Letters pages, most of us agree that most spine patients should not be rushed into surgery. In the first, Dr. Trafimow, from Elmhurst, Illinois, questions whether our Curve/Countercurve spondylolisthesis and stenosis patient received appropriate medical/inerventional care. He notes that a family member of his did well with exercises to decrease lumbar lordosis. Dr. Wang agrees that a trial of nonsurgical management is appropriate for almost all stenosis cases. A second letter, from Dr. Oppenheim of Suffern, NY, in reference to our piece on contrast flow in cervical epidurals, asks whether the efficacy of oral steroids has been compared to that of epidurals and whether the response to oral agents predicts the effect of injections. These are great questions. Drs. Laker and Standaert respond that answers are not currently available in the literature. Extrapolating from lumbar spine data, they report that despite their longstanding use, only limited and conflicting data support oral steroids for acute radicular pain.

...most of us agree that most spine patients should not be rushed into surgery.

Needles, Cement and Lasers

Obama's health initiative emphasizes comparative effectiveness research. In principle, this sounds like a great idea. Why pay for unproven procedures? As our Literature Review this month suggests, solid proof of efficacy is not always easy to obtain.

Our Literature Review covers three papers widely discussed in the lay press. John Toton, MD presents the widely publicized study of acupuncture for chronic low back pain (CLBP) from the *Archives of Internal Medicine.* The study randomized 638 adults with CLBP into 4 groups. These groups, including standardized or individualized acupuncture, sham needling and "standard management," were followed for a year.

At 8 weeks, both the real and sham acupuncture patients reported greater pain relief than the usual care group. Individualized needle patterns conferred no benefit. The lay press often reported this study as evidence of acupuncture's effectiveness. In reality, the benefits of sham (toothpick) acupuncture raise the question: was it the acupuncture that helped the patients? Or, did the hands-on care benefit these patients more than the vague "usual care" offered the control group?

Dr. Toton quotes Andrew Karozos, an integrated medicine practitioner in his area. Dr. Cavazos notes the long history of acupuncture and cites research (not assessed here) claiming that acupuncture releases endogenous opioids. Of note, while patients in this *Archives* study used less medication, acupuncture did not provide cost savings to the HMOs conducting the study.

How much of our effectiveness rests on patient expectations of improvement? Was the sham acupuncture group really given a "treatment" or does this study reflect the potency of the placebo effect in all three of the "treatment groups?" The extent of a patient's belief in the care rendered affects its outcome, whether traditional, allopathic medicine or an alternative remedy.[2] The money spent on alternative remedies tells us that our usual management is deficient. The intense patient interest in these techniques must foster additional study. At present, it seems safe to conclude that acupuncture is safe and probably efficacious although meeting your patients regularly for "hands-on," sympathetic care may have a similar impact, without needles.

Looking at slightly larger needles, Dr. Michael Frey reviews the two recent vertebroplasty trials from the August 6, 2009, *New England Journal of Medicine.* As with the acupuncture study, these trials were prospective, randomized and included a sham treatment arm. Here, "control" patients underwent vertebral needle insertion without polymethylmethacrylate (PMMA) augmentation.

Given the attention paid to these studies and their potential impact on referral and treatment patterns, NASS, as the preeminent multidisciplinary spine organization, has more formally analyzed these studies as well. A wide-ranging discussion of these papers can be found in an upcoming issue of *The Spine Journal.* Some of the material will be available online ahead of print and Drs. Bono and Mick will lead a discussion at the NASS Annual Meeting.

Given his extensive and very positive experience with these procedures, Dr. Frey was surprised at the outcomes reported. Like Dr. Frey, the NASS analysis group notes that many practitioners familiar with these techniques have responded to these studies with "surprise and even disbelief." They cite "numerous large case series, both prospective and retrospective" reporting "very encouraging results" and "dramatic pain relief in appropriately selected patients." Until the publication of the Buchbinder et al and Kallmes et al studies, "the evidence and experience… had been overwhelmingly positive."

While the authors of both studies are to be praised for the difficult task of generating level I data for VBA, both Frey and the NASS group examine possible causes for the "large chasm between previous data and experiences and the latest, highest quality data." Both cite issues with patient selection, enrollment and the control group. These problems lead Frey and the NASS group to conclude that the results

should not be immediately generalized to the broader group of patients suffering from acute, painful VCF.

Noting that fracture acuity influences VBA outcomes, the true acuity of the fractures included in the Kallmes and Buchbinder studies is questioned. In both studies, the fractures were less than one year old. Buchbinder et al sought marrow signal change signifying edema, but any detectable fracture line sufficed for inclusion. In the Kallmes study, bone scan or MRI data were sought only when fracture age was indeterminate.

Given the numbers of patients treated more than 3 months after sustaining the fracture, self-selection bias is possible. That is, only patients with significant, spontaneous improvement would be willing to be randomized to a sham procedure. Indeed, enrolling patients experiencing excruciating pain into a PRCT remains difficult. Many of the most severely affected patients will not consent to the study. Of the 1,812 patients screened for the Kallmes study, only 131 were entered. Similarly, Buchbinder et al required 4.5 years to accrue 78 patients at four high volume centers, reporting that 141 who satisfied all inclusion criteria declined randomization.

The control groups included injection of anesthetic into the facet capsule or periosteum. It could be argued that, given the medication's plausible impact on patient pain levels, this was not so much a sham procedure as it was an alternative intervention. In assessing outcomes, both studies make little mention of fracture versus other causes of back pain. Dr. Frey argues that a close physical assessment was not undertaken before or after the procedures. He feels that an overreliance on imaging findings may have lead to overtreatment of some subacute fractures.

The impact of the vertebroplasty trials on VBA referrals has yet to be seen. These articles discuss osteoporotic compression fractures only. The European literature contains several series documenting outcomes of VBA in the management of "aggressive" hemangiomas. In lieu of a Curve-Countercurve piece this month, Radiology Rounds Editor Frank Shen presents an expanded column on vertebral hemangiomas. A case presentation is offered along with a discussion and algorithm for hemangioma management. Have you found many "symptomatic" hemangiomas in your practice? Could this patient have been treated with percutaneous vertebroplasty?

Another controversial, minimally invasive surgery topic relates to the role of lasers during spine procedures. We are fortunate to have Dr. Jack Stern review the topic, providing an excellent overview of laser physics and the implications of the technology in spinal procedures. Stern notes that while the Internet is replete with "laser spine centers," informal surveys reveal very few laser spine surgeons.

Reports dating back to 1978 detail the role of surgical lasers as a light source, a cutting or vaporizing instrument, or as a coagulator. The frequency and power of the emitted laser light is adjusted to the user's needs. In spine, CO_2, Nd:YAG and argon beam lasers have been employed. Each has a varying ability to coagulate or cut into tissue. While laser utilization in soft tissue spinal tumor extirpation has been well described, they are most frequently employed in discectomy procedures.

Proponents argue that the laser allows more complete disc removal while decreasing perineural scarring and retraction. Others warn that laser energy may penetrate the anterior disc space and injure the retroperitoneal organs and vessels. One of my mentors told me, "nerves don't like heat." Of note, side-firing lasers have been developed to decrease anterior penetration and stronger beams can be used to effect boney decompression of the lateral recess. It remains unknown whether the benefits of laser utilization outweigh its risks and costs.

Dr. Stern concludes that, with the limited data available, lasers are more effective in attracting patients than treating them. After reading his article, I returned to the question: "what is laser spine surgery?" Are we talking about a particular procedure or merely a tool to be used in traditional or MIS spine operations? For many patients, "laser" surgery merely misidentifies endoscopic technique. For others, it implies one of several percutaneous disc decompression modalities (many of which do not use laser energy at all). Given that operative lasers are routinely used in ophthalmology and have been available for decades, why haven't they become more popular? If these techniques were truly useful, one would imagine that they would have become more widely adopted over the last 30 years. On the other hand, if they conferred little benefit, they should have been abandoned by now. Can their ongoing but limited use really be a matter of marketing? Are we waiting for better laser technology, better retractors or better education?

At *SpineLine,* we have been trying to put together an invited review on the utilization of laser technology in spine surgery for some time. Initially, we invited surgeons thought to have experience with the technique, but finished manuscripts were not forthcoming. To provide some counterpoint to this article, I asked Dr. Robert Biscup, an orthopaedic spine surgeon with 30 years of experience, to review his experience with lasers as a side-bar to our invited review. We are not trying to take sides, but we are interested in your opinion!

Health and Tort Reform: Hand in Hand?

In his President's Message, Dr. Charlie Branch discusses the impact of the current reform proposals. In their Advocacy Column, NASS Advocacy Chair Raj Rao, MD, and NASS Senior Advocacy Manager, Nicholas Shilligo detail additional efforts on the part of NASS and its partners in the Alliance for Specialty Care (ASC). In July, 14 NASS representatives joined other ASC members in Washington to meet with members of Congress, their staff and Medicare officials.

HR 3200, the 1,800 page bill representing the current House version of health care reform, has been endorsed by the AMA and the American College of

Surgeons with little critique. In response, NASS has increased its AMA involvement. NASS representatives to the AMA's June House of Delegates meeting helped craft a resolution less supportive of the public plan option. NASS has concluded that without adequate financial backing, an increase in the number of insured will not increase actual access to care. Depending on its structure and cost, private insurers may not be able to compete with a cheaper public option. If a public insurance became a monopoly, innovation could be stifled.

As NASS, its ASC allies and the public have begun to parse HR 3200, its negative implications have become clearer. NASS detailed its concerns in a letter to the House leadership. While the entire letter can be found on the NASS Web site, in his message, Dr. Branch summarizes its key points. NASS' letter reminds Congress that specialists also provide cost-effective preventive and maintenance care.

Starting in January, NASS began developing position statements on major elements of the health care reform debate. The first of these, published in the last issue of *SpineLine,* detailed the flawed SGR reimbursement scheme. The current proposal seeks to reform SGR partly by updating physician reimbursements in favor of primary over specialty care. Combined with a long history of declining reimbursements, this differential will only increase shifting of the medical workforce, further limiting access to specialty care. NASS does not support this plan and recommends updates based on the actual costs of delivering care.

The current proposal seeks to reform SGR partly by updating physician reimbursements in favor of primary over specialty care...this differential will only increase shifting of the medical workforce, further limiting access to specialty care. NASS does not support this plan and recommends updates based on the actual costs of delivering care.

Returning from the August recess, Max Baucus (D-MT) released the long awaited Senate health care reform bill. The bill does not include the public option. As a result, Senate Liberals, such as Jay Rockefeller (D-WV) oppose the bill. Despite its more centrist approach than the House version, no Republicans have supported the measure. Congressional Republicans raise a number of objections to the current bills, including the absence of tort reform. Recently, President Obama addressed a joint session of Congress in an effort to address these concerns. Obama's key reform themes included:

- Those currently insured can keep their coverage.
- Elimination of waste in the current system would provide enough savings to fund the overhaul.
- Private insurance reforms would eliminate annual and lifetime caps, cancellation of coverage and denial for pre-existing conditions.

For the first time, and after specifically excluding it in his AMA speech, Obama has mentioned tort reform as a means of cost savings. The President assigned Health and Human Services Secretary Kathleen Sebelius to test alternative medical liability models.

How big an impediment to reform is the current malpractice system? This question was addressed in the September 3rd *Wall Street Journal.*[3] The authors report that direct spending on malpractice (defense costs and claims payments) totaled $30.41 billion in 2007. As large as that number is, the plaintiff's bar notes that it accounts for only 1% of overall US health care spending. Unclear are the secondary costs: unnecessary tests, admissions and consultations.

The *Wall Street Journal* quotes Art Ushijima, CEO of Hawaii's largest hospital. In his 20-year career, the hospital has had to increase its complement of attorneys six-fold and their direct costs run "well into the seven figures." William Donelan, a Vice President at the University of Miami states that "14 cents out of every dollar collected in fees for services to patients goes toward buying medical malpractice insurance." He also notes that his figures do not include the costs of defensive medicine, which are "difficult to quantify" in a system that is "really irrational and out of control."

Recent Changes in Malpractice Exposure

Are things getting better? Yes and no. One of the difficulties with national tort reform lies in state-to-state variability. Even within states, the milieu changes as the composition of the courts change. In Texas, a reduction in pain and suffering awards (to $250,000) has decreased the numbers of suits but its impact on defensive medicine practices is unclear. Many doctors worry less about the amount of money a malpractice suit might cost and more about the loss itself and its implications on ego, local standing and the national practitioner data bank. Losses and settlements are reported with each application for staff privileges and many license renewals. Each case, won or lost, can increase premiums.

In other areas, the doctor–patient relationship is increasingly burdened with secondary liability. In Massachusetts, the state Supreme Court ruled that doctors could be sued by car accident victims when patients' prescription medications affect their driving. At least two wrongful death cases are underway in which elderly drivers hit bystanders. More recently, separate cases in Maryland and Wisconsin expanded physician's informed consent obligations.[4]

The Maryland court ruled that "The law does not allow a physician to substitute his judgment for that of the patient." In effect, the physician may not select the information that the patient hears and he

must explain all treatment options and their risks and benefits. Physician groups acknowledged the responsibility to advise patients about treatment risks but noted that giving the patient the "whole universe" of information is problematic. First, a given physician may not be expert in all of the possible treatment options. Second, patients may not be able to understand much of the technical information. Third, without judgment to parse and order the information, too much data would harm the informed consent process.

In the Maryland case, Peggy McQuitty was awarded $13 million. The jury found that her OB-GYN failed to offer an immediate C-section when an ultrasound abnormality was detected. Before her planned C-section, McQuitty had a complete placental abruption and her son was born with cerebral palsy. Proof of medical negligence is not required for plaintiffs to bring an informed-consent claim. Maryland medical liability defense attorney J. Mark Coulson said the ruling gives plaintiffs an avenue for recovery even when the standard of care has been met.

In a related story, physician liability now includes situations in which no doctor-patient relationship is established.[5] For spine care physicians, the best example of this is the independent medical examination (IME). In 2000, Jeremy Ritchie injured his back at work and was subsequently sent for an IME by his workers' compensation carrier. An MRI was reviewed and the physician concluded that Ritchie had recovered. The carrier terminated Ritchie's benefits and no further treatment was sought. Later, his condition deteriorated and he underwent surgery for cervical spinal cord compression. Four years later, in 2004, Ritchie died of an overdose of the narcotics. The IME physician was found 28.5% at fault in a $5 million verdict. The physician in this case had his IME patients sign a form carefully detailing the limitations of the relationship. The court did not allow the form to be admitted as evidence stating "you can't contract away your duty."

The Washington State Supreme Court recently ruled that a state law requiring certificates of merit before filing malpractice lawsuits constituted a violation of separation of powers. The legislature cannot pass laws affecting the functioning of the Judiciary and this rule unfairly "burdened access to the courts."[6] For good news, the State of Missouri reported that its new malpractice claims, 1,215, represented a 10-year low. The average claim payment was up $202,612. Causes of action included poor surgical outcomes (32%), nonsurgical treatment errors (20%) and diagnostic errors (18%). Patient safety, medication issues and childbirth complications rounded out the list at 11%, 9% and 7% respectively.

Do These Tort Issues Increase Costs?

A recent *New England Journal of Medicine* cost assessment found that regional differences in actual patient health have smaller impact than discretionary physician spending on health care costs.[7] While poorer people are sicker and require greater health care expenditures, differences in health and income accounts for less than 20% of the $3,280 difference in per patient expenditures. In the highest-spending regions, patients:

- spent more time in the hospital (an average of 2.1 days versus 1.4 days)
- had more frequent physician visits (14.5 versus 10.7 per year)
- underwent more MRI (21.9 versus 16.6 per 100 beneficiaries) and CT scans (61.4 versus 46.9 per 100)

Sutherland et al[7] concluded that, while patient outcomes are no worse in low-utilization regions, discretionary spending by physicians accounts for most of the regional variation. The authors specifically mention "watchful waiting" as primary treatment for LBP. They argue that waiting to see whether symptoms resolve instead of recommending an immediate MRI could reduce the number of unnecessary MRIs and surgeries.

The authors argue that early testing and referral arise from the economics of primary care medicine. Doctors do not get paid for counseling services. I would argue that, just as often, these tests and referrals are generated to avoid malpractice risk. I would be interested to know whether primary care or spine specialists order more testing or restrict activity in patients with acute low back pain.

Regulation and Coding

Even when preventive services are made available, they are often not utilized. For example, in the Medicaid and the Children's Health Insurance Program (CHIP), spending remains highly concentrated.[8] One in 10 enrollees (many with chronic conditions) account for 72% of the spending. On the other hand, nearly a third of the enrolled children received little or no care. That is, coverage alone will not assure preventive care any more than adopting the French health care system will make us as healthy as the French without also adopting their lifestyle (walking, red wine, 10 annual weeks of vacation).

The volatility of the medical marketplace has left hospitals and providers in increasingly desperate financial straits.[9] Last year, operating margins were 1.5% (compared with 2.8% in 2005) and 29% of hospitals lost money on operations. All the while, insurers are bringing in record profits. One explanation could involve a high rate of claims denials.[10] In California, insurers deny 22% of medical claims. One insurer, Pacificare, posted a 39.6% rejection rate. The *LA Times* article explained that the patients received the care but the hospitals and physicians were not reimbursed.

NASS is changing to respond to this volatile health care environment. In their Regulatory Policy column, Director of Health Policy Council, Charles Mick, MD, and Senior Manager Alison Waxler discuss two new measures to improve communication and address change. First, they introduce a new, monthly email publication, *Health Policy Review.* Citing the rapid pace of change and the ongoing, formidable demands on the practicing spine care physician, this new vehicle updates the NASS membership on legislative and regulatory issues, research and clinical care

questions, and practical concerns about coding and coverage.

Mick and Waxler also announce the formation, within the Health Policy Division, of the Professional, Economic and Regulatory Committee (PERC). This new 11-member committee, led by William Mitchell, MD, assists the NASS membership by working directly with payers and other stakeholders over new technology, procedure coding and coverage policies. The PERC will oversee NASS advocacy, RUC and CPT activities.

In his column, NASS Coding Committee member Dr. Dale Blasier outlines proper coding practices for spinal deformity surgery. Dr. Blasier defines levels fused and categorizes the relevant base and add-on codes. Base codes represent stand-alone procedures and have reimbursement levels that include pre- and postoperative care. When procedures include more than one base code, the most substantial is listed first. Then, the "lesser" codes are listed with a 51 modifier. The modifier discounts the code so the payor does not reimburse for the pre- and postoperative care more than once. Add-on codes represent procedures performed at the time of the index operation but never alone. As such, perioperative care is not included in their valuation. For example, spinal instrumentation is an add-on code and thus cannot be reimbursed if performed alone. This fact renders certain dynamic stabilization, growing rod and stabilization procedures in metastatic disease difficult to code accurately.

Much as the "clean air" bills of the early 90s represented industry efforts to increase pollution, simply calling a change "reform" does not mean that it improves quality of care or patient access.

Health Care Systems and Modes of Practice

Usually, malpractice and untoward outcomes are blamed on the decisions and actions of individual practitioners. More recently, taking a cue from airline, nuclear energy and high-risk enterprises, a systems approach to improve safety to decrease medical errors has been sought.

One of the first system reforms limited resident work hours. The 1984 death of Libby Zion in a New York teaching hospital was thought to stem from a fatal reaction between her antidepressant, phenelzine, with meperidine. The medication error theoretically occurred under the care of overworked and underrested junior residents. Her father, *New York Daily News* columnist Sidney Zion, undertook a crusade to limit work hours.[11] In a highly publicized malpractice suit, aired on Court TV, the Zion family was awarded $375,000 for his daughter's death.

His work led to the Bell Commission and the subsequent ACGME Guidelines. Have these reforms improved patient care? In orthopaedic surgery, resident work hour reforms were ultimately enacted in 2003. A recent *JBJS* article noted an increase in postoperative morbidity among hip fracture patients after these reforms.[12]

Arguably, while ensuring adequate rest for any health care professional is important, a system that automatically rejects contraindicated medication combinations would go further. Luckily, technology is improving and these errors should become less frequent. Another study examined the value of an organized trauma program. This retrospective cohort study, carried out over 5 years at an academic level I trauma center, concurrently compared mortality in patients treated by an experienced surgeon with those admitted by novice surgeons. Patients were no more likely to die in the hands of novice surgeons than their experienced trauma director. On the other hand, an organized trauma program significantly improved mortality.[13]

Time of day and operating conditions probably also impact patient outcomes. A recent examination of 203 consecutive femoral or tibial shaft fractures, divided the patients treated with intramedullary nail fixation into daytime and after-hours groups (4PM to 6AM or the reverse). Operating time was shorter in the after-hours group but radiation exposure was the same. The after-hours group required more unplanned reoperations and removal of painful implants than the daytime group (both $p < 0.02$). The authors concluded that these differences could be related to technical errors associated with nonideal conditions.[14]

Physician ego aside, increasingly it appears that how and when something is done has more impact on outcomes than who does it. These factors must be considered when reforming the health care system. In its August 27, 2009 Sentinel Event Alert, the Joint Commission recommended a new approach to health care similar to the "zero defects" approach found in the nuclear power and aviation industries.[15] The report states that leadership issues contribute to 50% of all sentinel events.

Such safety systems recognize that individuals are fallible, but redundant processes can be created to prevent the human error from reaching the patient. To create a "culture of safety," the authors recommend daily "huddles" to address ongoing risk and maintain mindfulness. Over time, these systems are vulnerable to complacency. The staff may see their leadership's support as merely lip service. All of these systems require openness and frank communication. Fear of litigation is cited as impacting this openness leading to underreporting of errors and system failures which then cannot be addressed.

One aspect of systems-based practice relevant to spine care in particular involves sterile technique and prophylactic antibiotic protocols. In her Research Notes section, Belinda Duszynski, NASS Senior Manager for Research and Quality Improvement, discusses the results of the Current Practice of Antibiotic Prophy-

laxis in Spine Care Survey. Duszynski notes that surgical site infections are now considered "never" events and no longer entitle the hospital to reimbursement for their care. As cases of unreimbursed infections mount, administrators begin to aggressively investigate SSI cases to ensure compliance with hospital protocols.

To study current practices, the NASS Research Council leadership conducted a survey of its surgical membership. A 20% response rate was achieved. Only 30% of the respondents had read NASS' evidence-based guidelines for antibiotic prophylaxis in spine surgery.

Prophylactic antibiotics were employed by the vast majority of respondents. Their practices could be divided into uninstrumented and instrumented surgery protocols. Typically, cephaloxin (94.6%) was recommended 1 hour before incision. Vancomycin was used next most often at 5.1%. In longer cases, most physicians reported re-dosing their patients at 4 hours. While 60% ceased antibiotics after 24 hours, significant percentages maintained the antibiotics until drain removal (14.1%) or 48 hours (5.7%). Similar numbers were seen for instrumented cases, though vancomycin usage was reported at a nearly 10%. Just over half of the respondents reported adjusting their protocol in patients perceived to be at higher risk for infection.

Duszynski notes that the CMS Physician Quality Review Initiative (PQRI) recommendations are extrapolated from nonspine data. NASS' *Evidence-based Guidelines* detail the available antibiotic and SSI data in spine surgery. Specifically, while antibiotic prophylaxis can be recommended, there was insufficient evidence to determine optimal timing for antibiotic discontinuation. Adequate evidence supports the practice of broad spectrum antibiotic coverage in patients at risk for polymicrobial infection.

Even when preoperative protocols are followed to the letter, SSIs occur. Given the limited information available and the known, increased infection rate in high risk groups, it makes no sense to call SSIs "never events." If this practice expands, hospitals will simply refuse care to high risk patients. Calling SSIs "never events" may be an example of a well-meaning systems practice or simply a cost-cutting measure but it proves that, with any reform, the devil is in the details. On a side note, Aetna is now following CMS' lead in denying coverage for these "never" events.[16]

Much as the "clean air" bills of the early 90s represented industry efforts to increase pollution, simply calling a change "reform" does not mean that it improves quality of care or patient access. As care providers, we have to help guide this process away from the "divide and conquer" Washington policies and into a coherent pathway to quality, affordable and accessible health care. Locally, fight for tort reform. Improve public trust by identifying unethical and incompetent practitioners. Rao and Shilligo ask that each of us contact our Washington representatives and relay our concerns as "practicing physicians treating thousands of their constituents." It's incumbent on us to stay involved and ensure that our patients continue to have access to the quality care.

References

1. Cassil A. A Snapshot of U.S. Physicians. Key Findings from the 2008 Health Tracking Physician Survey. Center for Studying Health System Change. September 3, 2009, 2009.
2. Herman A, Busheri Botser I, Tenenbaum S, Chechick A. Intention-to-treat analysis and accounting for missing data in orthopaedic randomized clinical trials. *J Bone Joint Surg Am.* 2009;91(9):2137-2143.
3. Searcey D, Goldstein J. Tangible and unseen health-care costs. *Wall Street Journal.* September 3, 2009.
4. Sorrel AL. Two state courts, same ruling: informed consent must include all options. *Am Med News.* Available at: www.ama-assn.org/amednews. August 24, 2009.
5. Sorrel AL. Doctor liable despite no patient relationship. *Am Med News.* Available at: www.ama-assn.org/amednews. August 10, 2009.
6. Corte RL. State Supreme Court throws out medical malpractice law. *Seattle Times.* September 17, 2009.
7. Sutherland JM, Fisher ES, Skinner JS. Getting past denial — the high cost of health care in the United States. *New Eng J Med.* 2009 Sep 24;361(13):1227-1230. Epub 2009 Sep 9.
8. Kenney GM, Ruhter J, Selden TM. Containing costs and improving care for children in Medicaid and CHIP. *Health Aff (Millwood).* 2009;28(6):1025-1036.
9. Evans M. Moody's report shows margins slid in 2008. *Modern Healthcare.* August 28, 2009.
10. Girion L. HMO claims-rejection rates trigger state investigation. *Los Angeles Times,* September 4, 2009.
11. Lerner B. A Case that Shook Medicine. *Washington Post.* November 26, 2006.
12. Browne J, Cook C, Olson S. Resident duty-hour reform Associated with increased morbidity following hip fracture. *J Bone Joint Surg Am.* 2009;91:2079-2085.
13. Haut E, Chang D, Hayanga A, et al. Surgeon- and system-based influences on trauma mortality. *Arch Surg.* 2009;144(8):759-764.
14. Ricci W, Gallagher B, Brandt A, at al. Is after-hours orthopaedic surgery associated with adverse outcomes? A prospective comparative study. *J Bone Joint Surg Am.* 2009;91:2067-2072.
15. The Joint Commission. *Sentinel Event Alert.* Issue 43. August 27, 2009. Available at: http://www.jointcommission.org/SentinelEvents/SentinelEventAlert/sea_43.htm
16. DerGurahian J. Aetna tightens payment policies on hospital errors. *Modern Healthcare.* August 25, 2009. Available at: http://www.modernhealthcare.com/apps/pbcs.dll/article?AID=/20090825/REG/308259937