5 Factors for Spine Surgeons to Negotiate Better Payor Contracts

By Laura Miller

Here are five factors for spine surgeons to better payor negotiations.

1. Gather objective quality data. Insurance companies will ask for quality data during contract negotiations. Make sure you can produce information about your individual outcomes and highlight any positive points, such as a lack of complications, return to work status and pain scores.

“It would be in surgeons’ best interest to have some kind of objective data such as outcomes data to show insurance companies or workers’ compensation carriers to justify what they do and how effective they are,” says J. Brian Gill, MD, a spine surgeon at Nebraska Spine Center in Omaha. “We do research studies on our patients for outcomes on post-surgical patients and look at Oswestry scores as well as neck disability and return to work status. We compare that to available data.

10 Key Trends in Spine Surgery for 2013

By Laura Miller

Several leaders in the spine surgery field discuss the key trends to watch for 2013.

1. Coverage denials will continue among many payors. This year more than ever, spine surgeons are reporting coverage denials from insurance companies for surgery as well as other procedures and tests.

“The last two years have been extremely challenging,” says Neel Anand, MD, director of spine trauma, minimally invasive spine surgery at Cedars-Sinai Spine Center in Los Angeles. “Seemingly, everything is being denied, including MRIs and CT scans. We spend at least 50 percent of our time, compared to two years ago, getting approval for patients and talking to non-medical personnel. Sometimes even then, we aren’t able to get clearance for the surgery.”

The inability to treat patients quickly and efficiently could lead to health problems in the future, especially for patients with degenerative conditions.

100 Spine Surgeons Advancing the Field

By Laura Miller and Heather Linder

Here is a list of 100 spine surgeons who have contributed to the advancement of the field of spine surgery through their leadership, research, education or innovative developments.

Behrooz A. Akbarnia, MD, is the medical director at the San Diego Center for Spinal Disorders and a clinical professor at the University of California, San Diego. He has been president of the Scoliosis Research Society and a driving force in the Growing Spine Study Group.

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Publisher's Letter

This issue of Becker's Spine Review focuses on spine surgeon leadership and includes two key articles: 100 Spine Surgeons Advancing the Field and 50 Spine Surgeons Focusing on Scoliosis. The issue also includes expertise from several orthopedic spine and neurosurgeons at the forefront of the field, such as newly-elected North American Spine Society President Charles Mick, MD, Rothman Institute President Todd Albert, MD, and Director of Spine Service at NYU Langone Medical Center Jeffrey Goldstein, MD.

This issue also features the 11th Annual Orthopedic, Spine & Pain Management-Driven ASC Conference: Improving Profitability and Business and Legal Issues conference brochure. Save the date for June 13-15, 2013 in Chicago. The conference will include 95 sessions and 125 speakers, 51 of which are physician leaders.

Keynote speakers at the conference are:

1. Mike Krzyzewski (Coach K), former basketball player and head coach at Duke University.
2. Brad Gilbert, former professional tennis player, TV tennis commentator, author and tennis coach.
3. Geoff Colvin, senior editor-at-large for Fortune Magazine and author of Talent is Overrated.
4. Forrest Sawyer, TV journalist and entrepreneur in innovative healthcare, founder of FreeFall Productions, an award-winning documentary production company.

Registration information is included on page 24 or at www.beckersspine.com.

Should you have any questions or comments, please contact myself at sbecker@beckershealthcare.com or editor-in-chief Laura Miller at lmill-er@beckershealthcare.com or president and CEO Jessica Cole at jcole@beckershealthcare.com.

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Biggest Challenges for Spine Surgeons Heading Into 2013: Q&A With Dr. Jeffrey Goldstein

By Heather Linder

Jeffrey A. Goldstein, MD, is a clinical professor and director of spine service, Department of Orthopaedic Surgery at NYU Langone Medical Center and sits on the board of directors for the International Society for the Advancement of Spine Surgery. Here, he discusses the biggest challenges for spine surgeons next year and where the field is headed in the future.

Question: What will be the biggest challenges for spine surgery in 2013?

Dr. Jeffrey Goldstein: The biggest challenges in spine surgery continue to focus on providing the right treatment for the right patient based on appropriate guidelines and protocols. The onus is on the spine surgeon to maintain an open and honest relationship with the patient to include them in the decision process and develop the best treatment for that particular patient. These decisions need to be based on what we as surgeons know, and not on what we believe. While our knowledge comes from the sum total of our experience combined with the evidence, which includes understanding the lifestyle and goals of the patient as well. Surgeons continue to be challenged by limitations of resources which are real in addition to those limits placed by payors.

Q: How will healthcare reform affect the industry?

JG: Healthcare reform will affect the industry, but to what extent and how remains to be seen. An influx of patients into the system will put greater demands on practitioners and providers and potentially lead to increased utilization. Utilization will be directed by the Independent Payment Advisory Board. Demand may very well increase which would put greater strains on the healthcare providers, challenging our ability to continue to provide timely care.

Q: Do you expect the medical device tax to have a noticeable impact? If so, in what ways?

JG: As a surgeon and teacher, I would be concerned if any changes moved resources away from the industry and decreased their capacity for innovation. The specific implications of a medical device tax would be better addressed by industry.

Q: How will spine surgeons need to adapt to overcome these challenges?

JG: Regardless of any change, spine surgeons should stay focused on doing their best to treat and advocate for their patients. Surgeons should provide care based on recognized treatment guidelines. Societies such as ISASS will play an important role in educating their members and collaborating with industry to foster innovation and provide algorithms for patient care. Additionally, we should work with patients to help them become better advocates for themselves and participate in forums such as International Advocates for Spine Patients or the Better Way Back.

Q: What abilities must spine surgeons possess to deal with the future industry?

JG: The future industry remains unclear. While this may sound obvious, surgeons will do best if they continue to do what they know best. Be a good doctor and do the right thing. Take good care of your patients and practice good medicine. This is what we know best. Patients will continue to seek out good doctors who demonstrate skill, intelligence, compassion and empathy.
“Payors are adding these guidelines and there is very little evidence that they are appropriate,” says Dr. Wang. “We as spine surgeons have to collect evidence and outcomes — whether it is from registries or good prospective studies, to show what works and what doesn’t. There are some things we can work on and it’s incumbent upon the surgeons themselves to gather the evidence for these things and show what will be successful for our patients.”

The implementation of EMR and other healthcare IT may make this process easier in the future. “The one good thing coming out of EMR is that it will gather our data and show our treatments work,” says Dr. Wang. “I think that’s going to result in better outcomes. I think gathering outcomes and doing the surgeries that work is important. It may be harder for people in private practice to do it, but it’s more important because private practices are dwindling and more surgeons are becoming hospital employees.”

3. Hospital employment will likely increase. Today’s tight regulatory environment, coupled with low reimbursements and rising costs for practice management, mean fewer physicians coming out of medical school are choosing to strike out on their own. Instead, they are becoming hospital employees. Established physicians are also selling their practices to hospitals at an alarming rate in search of more flexible hours and high salaries hospitals are willing to pay.

“The trend of hospital employment of spine surgeons is growing and will continue to grow,” says Robert Watkins Jr., MD, co-director of the Marina Spine Center at Marina Del Rey (Calif.) Hospital. “The larger hospital networks are gaining control of masses of patients which will make it more difficult for private practice surgeons. The private practice surgeons need to be able to spend adequate time with their patients and provide outstanding service.”

When hospitals begin employing specialists it becomes more difficult for private practice surgeons to drive referrals.

“The opportunities are going to become more constricted as more hospitals hire people to be staff members instead of independent contractors,” said Donald Corenman, MD, a spine surgeon with The Steadman Clinic in Vail, Colo. “I think it’s going to negatively impact care because doctors will become shift workers and that’s going to diminish their quality and continuity of care.”

Even when surgeons are not employed by hospitals, hospital executives and leaders are dictating clinical measures, such as which types of implants surgeons can use.

4. Care will need to become more cost-effective. All providers will be pushed further toward delivering the most cost-effective care possible as the government and payors pursue ways to lower healthcare spending and cut costs. Additionally, more patients with high deductible plans will shop for the best value and expect spine surgeons to deliver.

“Reimbursements are declining and they will continue to decline,” says Dr. Watkins. “Patients expect better care and more time with doctors, but most people don’t want to pay for it.”

This trend also holds true for spine innovations. “One of the biggest challenges in the medical profession is dealing with the decreased reimbursement and moving toward more cost-effective measures,” says Matt Chong, MD, a spine specialist at White Memorial Medical Center in Los Angeles. “How do we make safer, more reliable implants and keep innovation going while minimizing the cost of developing and using this new technology.”

Striking that equilibrium for better products with fewer complications while meeting lower reimbursement needs will make it more difficult to innovate. However, some innovations we are likely to see in the future include robotic guidance for spine surgery and biologics.

“Technology will continue to make spine surgery safer and more effective,” says Dr. Watkins. “Robotic computer navigation will continue to evolve.”

5. Spine care is becoming more interdisciplinary. Spine care providers are now integrating more than in the past to provide patients with a one-stop location for all their spine and back pain needs. Spine surgeons are partnering with all types of non-surgical specialists, including physical therapists, pain management, physicians, massage therapists, chiropractors and acupuncturists to bridge the gap in care.
“Spine surgery can be an isolating profession but at its core, our patients require a multidisciplinary approach,” says Dr. Chong. “We need to reconnect with primary care physicians and pain management specialists on a multi-modal approach to care.”

Practices are also incorporating MRI, behavioral specialists and other ancillary services into their practice for convenience; patients can have multiple services in the same visit and specialists are able to coordinate care better.

“I think the model that a lot of people are interested in is the ‘one-stop shop’ approach, where through a single practice site you can see a non-operative specialist or a spine surgeon, as well as a physical therapist, and have access to advanced imaging facilities,” says Dr. Chong. “Consolidating all of that is an advantage from a financial perspective and enhances good communication.”

It will take considerable skill to lead these practices of the future. “To be a leader at a major institution, a spine surgeon needs to become fluent in the politics of the field,” says Dr. Watkins. “To be a leader in private practice, the surgeon needs a marketable trait and [needs] to provide outstanding service to patients.”

6. **Regulations and lower reimbursement threaten the patient/physician relationship.** As more regulations are passed, and healthcare providers struggle to implement electronic medical records, surgeons are spending more time doing administrative and paper work than ever before. While they are still spending time with patients, it has become more difficult for them to carve time out of busy schedules.

“It’s a challenge for surgeons comply with the rules, institute EMRs and improve patient satisfaction scores,” says Dr. Wang. “A lot of the reimbursement in the future will be based on patient satisfaction. We need to figure out how to maintain our practices and profitability while having good relationships with patients and complying with more rules and regulations.”

According to a Medscape’s Physician Compensation Report 2012, around one quarter of orthopedists spend 30 to 40 hours per week seeing patients, slightly higher than last year. However, 20 percent of orthopedists reported spending 10 to 14 hours per week on paperwork and administrative activity; another 29 percent reported spending five to nine hours weekly on non-patient visit work. With the uncertainty surrounding healthcare reform implementation, more regulations are possible in the future.

“Right now, we know what we have to do and we think we know what will be required next year, but they could change the rules at any time,” says Dr. Wang. “They could have new rules and regulations in a few years, so it’s almost like a moving target.”

Another threat to the patient/physician relationship is lower reimbursements, which prompt some surgeons to see more patients per day and spend less time with each patient.

“One of the biggest challenges facing spine surgeons over the next five years is being able to afford to spend enough time with patients to make a proper diagnosis and to properly inform patients of their conditions and potential treatments,” says Dr. Watkins. “Patients desire to know more information than in the past, and they want their doctor to answer many questions. These are reasonable expectations from the patient with spinal disability, but with de-
creasing reimbursement the doctor will be less able to afford to do this."

7. More surgeons will jump on the minimally invasive bandwagon. Over the past five to 10 years, the biggest trend in spine surgery technological development has been less invasive surgical technique. “Minimally invasive approaches are really revolutionizing the field,” says Dr. Chong. “At times in the past, we were often limited to offering a patient a more invasive procedure. The advancements and increased adoption of minimally invasive techniques are resulting in shorter hospital stays, less post-operative pain and a reduction in traditional complications.”

While most surgeons were initially skeptical of these developments, solid evidence has shown certain techniques and procedures — performed with the same goal as open surgery — have good outcomes while minimizing comorbidities such as pain and blood loss.

“Minimally invasive spine surgery should play a role in the practice of every spine surgeon,” says Dr. Watkins. “Surgeons should perform less invasive surgery when they feel confident that it will treat patients’ conditions as safely as more invasive surgery. Surgery may be performed as an outpatient [procedure] if the safety is not compromised.”

In time, the procedures that don’t show clinical and cost improvements will fall out of favor and those with clear, proven benefits will continue to grow.

“There are some procedures that are good and we know work well, but even among these procedures there will be innovation,” says Dr. Chong. “We’ll want to reduce the rate of revision surgery and maximize long term patient satisfaction. We’re also looking for new technology that will make us more accurate and expose surgeons to less radiation.”

New developments in minimally invasive procedures for more complex surgeries, such as spinal deformities, are on the horizon and pioneers in the field are already using them.

“I think the minimally invasive correction of spinal deformity is a massive move forward,” says Dr. Anand. “It represents a huge paradigm shift in performing major spine surgery. I see that continuing in the future because many centers are adopting it, societies are accepting it and courses are teaching it. A big operation being done through minimally invasive techniques is showing equivalent to better outcomes; we have five and seven year outcomes data proving it works.”

8. Artificial discs and lateral fusion research is coming due. For years, spine surgeons and medical device companies have collaborated on artificial disc replacements and lateral fusions with mixed results for coverage. Lateral procedures are now becoming a standard approach from device companies across the board.

“Compared to many other spine procedures, direct lateral interbodies are relatively new,” says Dr. Chong, “but within the next decade we will have long-term feedback to help us determine what techniques work and where we need further development.”

Insurance companies are covering these procedures more readily than artificial disc replacements, which still have some room for development.

“There are trends right now that are going in the direction that will try to maintain mobility but they haven’t been completely successful yet,” says Dr. Chong. “The problem with current artificial discs — and it may be resolved in the next generation — is impact absorption. There are a few discs out of Europe that may show some promise in fixing this problem.”

One of the road blocks facing many artificial discs is payor coverage. A few discs have gained 510(k) clearance, but even after that insurance companies often continue to deny coverage, citing lack of evidence for clinical efficacy.

“There are new technologies out there that are being hampered by coding and regulations in that they are put forward as experimental and insurance companies won’t pay for it,” says Dr. Anand. “These issues will determine whether new technology moves forward and whether it will become more ubiquitous.”

Current research in these fields is promising and coverage could be expanded in the future, if cost- and quality-effectiveness are shown.

“One way to influence the decision by insurance companies on whether to provide coverage for this procedure,” says Dr. Chong, “is to conduct studies designed for superiority to determine if artificial disc replacements are better than traditional fusion in long term follow up.”

9. Online marketing and patient education becomes a must. There is a huge opportunity for spine surgeons to market themselves and their practice to patients online. Beyond the standard practice website, spine surgeons must engage the online community with patient education platforms, videos and blogs related to spine conditions.

“I think the internet is going to be the next wave for spine care,” says Dr. Corenman. “Patients are coming into the office having significant fear and not understanding anything about spine surgery, and they are hungry for knowledge. Unfortunately, there is not a lot of education in typical spine offices, and that’s where I think the internet is really going to shine.”

Dr. Corenman has a website that includes a forum where anyone can ask general questions about spinal conditions and he answers to the best of his ability. One common problem is patients receiving different diagnoses and treatment recommendations from multiple spine surgeons and specialists; he tries to help patients sort through this information and find the right pathway to care.

“There is a significant lack of continuity for different problems,” says Dr. Corenman. “When I’m interacting with them online, I’m not practicing medicine, it’s purely education. When you can gain accurate and succinct education, it makes patients more confident and empowers them in their own decisions.”

Dr. Corenman receives two to seven questions per day on his forum and spends around an hour answer the questions daily. He also writes articles for the website and uploads videos of procedures. He has nearly 40 videos on his YouTube site, which receives about 100,000 hits per month. While the website has gained traction, it takes significant time and effort to maintain.

“It’s still uncommon for surgeons to have a vast online presence,” says Dr. Corenman. “The problem is that it takes a tremendous amount of time to write these things and an understanding of how patients think so you can write in a way they will understand. Even though there are a lot of plug in sites where you can purchase information and publish it on your webpage, it might not be accurate or accessible to patients. It behooves you to write that information yourself.”

10. Physician ratings and online reputation management won’t go away. Over the past five years, several physician rating websites have sprung up from various organizations, allowing patients to “rate” their physician and leave comments.

“The most difficult part of the internet will be how to rate doctors,” says Dr. Corenman. “Now a patient can go on the internet and there are a number of different rating sites. They can express their opinions and you don’t know how
accurate it is. That’s one of the dangers of the internet, and it’s relatively new territory.”

While a vast majority of these websites are underutilized, they are gaining traction as patients are continuously encouraged to take more responsibility for their care. Unfortunately, the most avid contributors to these pages are often those with negative experiences.

“It’s a double-edged sword,” says Dr. Anand. “You can have one disgruntled patient for any reason who could post a very negative review that is an inaccurate misrepresentation of the physician and his clinical skills. On the flip side, you can also have patients posting extremely positive results. At the end of the day, I advise people to look at these comments very carefully, conduct extensive research about the surgeon they are considering, and assess their decision based on more than just one review whether it is positive or negative.”

If someone publishes false damaging information, physicians may be able to take action based on libel or slander. However, wrongdoing may be difficult to prove and removing the information could be a time-consuming process. Instead, physicians should work on getting ahead of a negative reputation by creating a positive one.

“Even if it is just patients receiving our emails and newsletters, we want them to be aware there is an organization out there that cares about them,” he says. “You can have one disgruntled patient for any reason who can post a very negative review that is an inaccurate misrepresentation of the physician and his clinical skills. On the flip side, you can also have patients posting extremely positive results. At the end of the day, I advise people to look at these comments very carefully, conduct extensive research about the surgeon they are considering, and assess their decision based on more than just one review whether it is positive or negative.”

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“The internet is going to make decisions for us,” says Dr. Corenman. “If physicians don’t take part in the discussions regarding the internet, you are going to have the decisions make for you by the general public.”

Beyond using the internet, Dr. Anand suggests connecting patients via phone. With permission, connect a previous patient with a future surgical candidate so they can discuss the process and what to expect in the future. “I think that’s the most effective way for patients to be comfortable about who the surgeon is and what the surgeon is capable of clinically and surgically,” he says.

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**Dr. Thomas Errico: 5 Goals of International Advocates for Spine Patients**

By Heather Linder

Recently the International Society for the Advancement of Spine Surgery formed an advocacy arm, the International Advocates for Spine Patients.

Thomas Errico, MD, was appointed chairman of the board of IASP. Dr. Errico practices at the New York University Lagone Medical Center and the Hospital for Joint Disease in New York City.

The group’s first step is building its membership among spine patients, whom the organization hopes to reach out and connect with. IASP will likely seek patients through individual physician members, Dr. Errico says. “Even if it is just patients receiving our emails and newsletters, we want them to be aware there is an organization out there that cares about them,” he says.

Here Dr. Errico expounds on why IASP was created and what the group will focus on as it becomes established among physicians and patients.

1. **Bring the patient back into the care conversation.** In the midst of an evolving spine surgery market, Dr. Errico and other members of ISASS felt as if no one was representing the interests of spine patients. “In a cost-saving era, nobody was speaking for spine patients,” he says. IASP was formed to meet that need. “As an organization and an advocacy group, we needed to be different,” he says.

2. **Advocate for spine patients, surgeons and industry members.** The society was created primarily to advocate on behalf of spine patients and secondarily to represent spine surgeons and other industry members, such as device makers, hospitals and insurance companies.

“We'd like to get [hospitals and insurance companies] interested in trying to help spine patients instead of helping their bottom line,” Dr. Errico says. “If we are honest with ourselves, the most important thing is the patient.”

3. **Provide patient education and support opportunities.** IASP will eventually be a place for patients to share stories about surgery, discuss insurance or coverage difficulties and share common anxieties surrounding being a spine patient, Dr. Errico says. The organization has already begun fielding questions from patients about insurance denials.

4. **Solve spine care coverage issues.** The advocacy organization will work with other societies to address discrepancies in coverage and other issues plaguing patients.

“Getting together with other specialty societies, we can call attention to these issues as insurance companies come up with arbitrary rules,” he says. “Once we get going we should have more resources to come up with guidelines, not designed by insurance companies to benefit their bottom line, but based in the best evidence available as to what should and shouldn’t be paid for.”

By partnering with other organizations, IASP will have the clout it needs to be a voice for patients and a motivating force for industry-wide improvements. “If anything, I’d like to see this organization, since we speak for spine patients, get professional societies and industry on their feet, acting together to have the voice be heard,” he says.

5. **Promote cost-effectiveness without compromising quality.** IASP will also work with ISASS to promote increased cost effectiveness for spine procedures and devices. Dr. Errico and the organization will pursue other projects as IASP grows, but the focus will not stray from patients’ wellbeing.

“I just want to make sure people understand that we have one focus, and that’s things which benefit spine patients,” he says. “We want to be unbiased, not a chauffer for the industry to get guidelines they want or for doctors to get more patients. We are doing what doctors should be doing, which is advocating for their patients.”
Goals & Priorities for Spine Surgeons Post Healthcare Reform: Q&A With NASS President Dr. Charles Mick

By Heather Linder

At the North American Spine Society’s annual meeting in October, Charles Mick, MD, was named president for the next year. Dr. Mick is a board-certified orthopedic surgeon who has been a member of NASS for 25 years. He practices at Pioneer Spine and Sports Physicians in Northampton, Mass., and is also a member of the Advocacy and Rehabilitation Intervventional and Medical Spine Committees.

Here Dr. Mick expounds upon his goals and vision for the organization, as well as how NASS will cope with changes in the spinal care industry.

Q: What are some challenges facing NASS and the spine industry?

CM: There are several challenges. One is defining insurance coverage policies for spine care. NASS will be working this year to define and distribute to the members and insurance carriers reasonable and evidence-based coverage policies for spine care. We’ve created a task force that will be selecting between 10 and 20 common spine conditions and then developing what we believe are reasonable coverage policies for those conditions, based upon reviews of evidence.

Q: What further goals will your organization pursue?

CM: We also want our members to be able to measure how the treatments that they recommend are doing. We need to start collecting outcome data, not only in research settings, but in daily care. Individual physicians need to be able to track and measure their own outcomes. Then we can set standards, identify shortcomings and develop ways to improve care.

A diagnosis based spine registry has been under development at NASS for the past two years. The pilot program we anticipate will be starting in December or early next year. An important goal is to complete the pilot study and then to expand the registry to the members. Insurance carriers are demanding that physicians demonstrate they can achieve good outcomes for the interventions they are recommending. NASS will work to define top quality high value care, advocate for its coverage and make available to the members a registry to measure the results.

Q: What type of advocacy efforts will NASS coordinate?

CM: We will be advocating for coverage from insurance companies for care proven to be effective. We will also be speaking out against care for which we don’t have good evidence. An example would be a prolonged bed rest for the treatment of back pain. We know that this is poor treatment so we will advocate against this approach and for early mobilization.

Also, consider MRIs or CAT scans inappropriately ordered within the first few weeks of the onset of low back pain in absence of warning signs for dangerous conditions. Those tests are important when appropriate, but they can be overused. We want to advocate for appropriate coverage and speak out against inappropriate care. I think the physician community has been hesitant to speak out against [MRI] overuse. We need to do a better job.

For certain tests and therapies for which we have good evidence, we need to work with insurance companies and advocate for coverage and reasonable payment. For example, surgery for spinal stenosis. We know that it is an excellent intervention. We know it works well, and it has good value. We can advocate very strongly for it.

Q: How will President Obama’s reelection impact your field?

CM: It is time for all stakeholders in healthcare to look beyond self interests and to work together and implement the Democratic experiment in healthcare reform. Nobody knows the end result, but all of us know that healthcare reform is needed. We need to improve care coordination and quality, and we need to reduce costs. The Democrats have won, and we have been given a message that the public wants to move forward with their plan.

Some aspects of the ACA are superb. For example, giving insurance to everybody, not being able to take insurance away if you get sick and being able to move from job to job and take your insurance with you. There are other aspects that will need to be modified and improved, for example, the Independent Payment Advisory Board.

Q: How will your past experience work toward your new position at NASS?

CM: I’ve been involved in spine care and in private practice for 25 years and have a tremendous amount of experience with patients, what they need and what is required to deliver high quality care. My expertise at NASS has been in healthcare policy, including coding, insurance coverage, reimbursement, advocacy and defining quality and value-based spine care. These are top priorities for our patients and members.

I’m looking forward to working with the [NASS] staff and volunteer leadership. Everyone at NASS brings a unique perspective to the team. The society by its nature includes spine care professionals from multiple disciplines. Each of these individuals will need increasingly to work together to define, coordinate, deliver, measure and improve care. This is exactly what our patients need us to do.

Dr. Charles Mick
5 Tips for Entrepreneurial Spine Surgeons to Stay Independent

By Laura Miller

Hospitals are employing specialists today at a higher rate than in the past. Close to 70 percent of physicians are choosing hospital employment as the expenses increase and reimbursement decreases. Some spine surgeons will be happier in the hospital environment, but for more entrepreneurial-minded surgeons other options are available.

“There are good models of employment out there if surgeons are comfortable with it,” says Todd Albert, MD, spine surgeon and president of Rothman Institute in Philadelphia. “My worry is that employment contracts will look good in the short term but over time surgeons become a commodity when they are not independent.”

Dr. Albert discusses five tips for spine surgeons to avoid hospital employment.

1. Join a larger group. Whether it’s a larger spine, orthopedics or multispecialty physician group, independent physicians are stronger in numbers. Joining or merging into a larger group helps individual physicians cover their overhead costs, increases negotiating power and offers business expertise they didn’t have as a one- or two-person operation.

“It’s going to be hard for one- or two-man groups to develop the infrastructure for the information technology they will need in the future,” says Dr. Albert. “Otherwise, they won’t be able to take the necessary steps to capture patients unless they are in a market where they can remain outside of insurances, and I think that opportunity is collapsing.”

Bigger groups can also fund electronic medical records and work with payors because they control more of the market share.

2. Outline treatment pathways. Larger groups of orthopedists and spine surgeons must organize and form treatment pathways so patients arriving at the office will be directed to the right specialist and follow the appropriate line of care.

“The group has to get together and decide how they will handle patients with each diagnosis, such as whether they will need braces or physical therapy or a combination of both,” says Dr. Albert. “Develop protocols because if they do things similarly, they are able to conduct research. It’s also less costly and more efficient for patients.”

Insurance companies are also increasingly looking for evidence that patients complete each step of their protocol before covering surgical procedures and having each step documented within your own system will easily meet these needs.

3. Invest in information technology. Patients, payors and referring physicians will demand reported outcomes in the future, and the best way to collect this information is through a good healthcare information technology system. These systems should interact with hospitals and other providers so you can stay on the same page.

“Invest in information technology in a way that you can measure and report outcomes, whether to payors or hospital systems, to prove what you are doing,” says Dr. Albert. “Be able to measure patient satisfaction as well. All these things are publicly reported, so know what they are and be ahead of the curve before your statistics end up in the newspaper.”

Once you are able to track your outcomes and define your quality, insurance companies and policy makers will come to you as they create treatment protocols. “You have to prove your method works, not just say it does,” says Dr. Albert.

4. Cover the spectrum of care within your practice. Even if your group is a subspecialty spine group, bring in non-operative specialists to expand your care coverage. Patients are looking for one-stop shops for all of their needs and practices that can’t accommodate them will be quickly passed over.

“It’s really important to cover the whole gamut of care when it comes to spine,” says Dr. Albert. “This means pain management, physiatry, physical therapy and non-operative sports medicine if that’s an important part of your practice. In orthopedics, our group wants to cover the patients from start to finish.”

Practices should also consider bringing imaging and other ancillary services into the practice when possible, or locating near those providers so patients don’t have to go across town for care.

5. Strategically partner with other providers. While spine surgeons can remain independent, there are several mutually beneficial opportunities for them to partner with hospitals, payors and other physician groups.

“You can partner with a hospital without being employed,” says Dr. Albert. “Be a good partner by getting the hospital what they need: increased revenue. Help them with pathways and protocols, lower the length of stay, implant costs and infection rates. The hospital provides a great place to work and can market your practice. They can also help with associated costs for the practice, including nurse practitioners and extenders.”

The newest form of strategic partnership between providers is accountable care organizations. They are forming across the country and surgeons should become involved early, if possible.

“They don’t want to be left out of an ACO, and if possible they want to be its sole orthopedics or spine provider,” says Dr. Albert. “Developing some of these partnerships might allow surgeons to become more successful while still remaining independent.”
5 Factors for Spine Surgeons to Negotiate Better Payor Contracts (continued from page 1)

for standard rates to show our treatments are as effective if not better.”

While insurance companies will ask for this data and inspect it, they are more interested in cost data. Make sure your quality is high and if the cost is also high, defend your high costs by showing value in your outcomes.

“Track outcomes from a clinical standpoint and a patient satisfaction standpoint,” says Richard Kube, MD, founder and CEO of Prairie Spine and Pain Institute and Prairie SurgiCare in Peoria, Ill. “Know how you stack up against others. If you can show value for the services you provide from benchmarking, that is substantial.”

2. Prepare cost-effectiveness and cost-savings data. Insurance companies will be most interested in your cost data. They want to see value for the dollars they are spending and will be more willing to work with you if they know you are saving them money. Surgeons can save money by performing procedures that require a shorter hospital stay, less expensive implants and fewer diagnostic and imaging tests.

“If you can provide the same care and achieve better outcomes and lower costs, that’s a win-win,” says Dr. Gill. “You have to have the outcomes and control costs effectively to negotiate better contracts with payors.”

Surgeons must understand the global cost of care, because even though the surgical fee isn’t high, insurance companies are still paying a large sum for the other aspects of care. Show the insurance companies how you can lower that cost and they may be willing to increase the physician fee in return.

“What has worked well in the past — surgeons saying their costs are going up — isn’t working very well now to negotiate higher rates,” says Chad Beste of Professional Business Consultants. “The whole impetus for reimbursements is moving to value. By paying more money to the surgeon, you should show what insurance companies get in return: better outcomes and lower global costs.”

3. Offer a broad array of comprehensive services, including pain management. An easy way to ensure lower global costs is by providing the service yourself. It can be cost effective for the insurance company if the practice performs the diagnostics and radiology services, which is also convenient for the patients, says Mr. Beste.

Another service insurance companies will be looking for is pain management. “Low back pain is in the top three in terms of total medical costs of any condition in the country, and more than 80 percent of these cases are non-surgical cases,” says Mr. Beste. “To me, the development of a comprehensive service line around the early detection and appropriate management of those patients should signify lower costs. You have to come up with a strategy that can demonstrate to payors how you are adding value.”

Most of the non-surgical pain management procedures are performed by interventional pain management physicians, chiropractors, physical therapists and other specialists — not surgeons.

4. Emphasize your strengths. Highlight special skills or focus areas during payor negotiations that make you or your practice unique. This is especially true if your practice is located in a rural market.

“As a provider, you need to be aware of your surrounding market,” says Dr. Kube. “Know your strengths and promote them. Also be aware of any services you provide that others do not. Make sure to point out these unique differences to payors.”

Insurance companies tend to lump all surgeons together, especially in small markets. The fact that you are board-certified or fellowship-trained can be a negotiating point if you are the only one in the area.

5. Stay open to new payment models. Several new payment models are now being introduced for medical care shifting from fee-for-service to pay-for-performance. These payment models — such as accountable care organizations or bundled payments — are designed to split the risk among insurance companies and providers for the cost and quality of care. Ultimately, it remains to be seen whether any of these new models will become the standard reimbursement method or if yet another model will emerge.

“This is the period of greatest uncertainty in my professional career and this will continue over the next five years,” says Mr. Beste. “I try not to put all my eggs in one basket; the world isn’t going to go all to ACOs, but we are headed to a system where a sizable percentage of the population will be willing to pay more for higher quality healthcare while others will be in a state run program. Surgeons will have to participate in one or the other.”

Pressure from insurance companies is driving more spine surgeons in-network, and as a result surgeons are working together in groups to leverage negotiating power. However, regardless of which payment model persists, Mr. Beste sees value being the crux of the negotiation. “Anything physicians can do to gear the discussion with payors toward to value will increase the likelihood of better results during the negotiations.”

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Insurance Dependency: Gearing Up for Next Year

By Barbara Cataletto, MBA, CPC, CEO/Managing Director of Business Dynamics, Inc.

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Spine practices depend on insurance company reimbursement to sustain their practice. Over time this sustainability is directly related to the patient base and insurance reimbursements that the practice develops relative to community, facility and referral relationships. These past years have placed a toll on many spine practices, so maybe it’s time to evaluate these relationships to ensure that your practice will be viable well into the future. One way to identify trends in reimbursement, patient populations and referral bases is through an insurance dependency audit.

Insurance dependency is an important aspect that requires the scrutiny of the financial and medical directors along with the physician to track income, patients and referrals. This area involves an analysis of the patient population for both group and individual practitioner’s income. It is necessary to examine the impact of an insurance carrier for the group/practitioner as it relates to patient volumes, reimbursement and the stability of the practice over time with the current trends. The insurance dependency analysis also promotes changes in these areas as well to rid the practice of costly, ineffective and insignificant insurance relationships. More importantly, this analysis identifies high dependency volumes, low reimbursement carriers and presents a clear picture to the analysts.

Areas of concern include:

**High volume patient base by carrier:** Practices and individual practitioners should be evaluated for insurance dependency on any carrier that is 20 to 25 percent or more of their practice. This dependency creates problems as the carrier reduces the rates significantly, therefore producing an immediate reduction in revenues. Additional reimbursement concerns include reductions in cash flow due to changes in policy provision, increased difficulties in authorization and collections processes or the possibility of termination of this carrier with major employers. High volume carriers also absorb appointment times that could be available to other patients.

**Low volume patient base by carrier:** There is a general understanding that practices will increase patient volumes with a contracted relationship. If you find that the practice has not appreciated this benefit, it may be time to discontinue the relationship or look for ways to increase the patient volumes by reaching out to both your staff and provider relations to ensure that all are aware that you are contractually involved with patient care. This information may have gotten lost amongst either party and correction will help to increase patient volumes. If this is not the case and the patient volumes are not available in your area, reconsider the relationship with that carrier.

**Fee schedule evaluation:** The insurance dependency analysis also looks to evaluate the rates paid by all carriers in a comparison spreadsheet. It will be necessary to identify all product lines for each carrier, as there may be significant differences in reimbursement based on the product type. Generally Medicaid and Medicare programs are the lowest rates with an increase in HMO and PPO products. Preparing a fee schedule comparison spreadsheet in this analysis forces two things: (1) the practice will need to get updated rates and (2) identify those carriers that have unacceptable reimbursement rates. Positioning the practice with full details about carrier reimbursements help to flag those carriers that need to be reconsidered and/or renegotiate with the carriers to an acceptable level.

Additional considerations need to be explored to ensure that the individual physician will not be severely impacted by a decision to withdraw. If the insurance dependency issues are of great concern, there are procedures for consideration to reduce dependency for future consideration of withdrawal. Some options include reducing your overall dependency over time or removing part of the dependency such as the HMO or Medicaid portions of the insurance plans.

- Carriers should be evaluated for fee schedules, labor involved in both the pre- and post-service components of the plan, and percent of patient population.
- Fee schedules need examination for lower than Medicare standards and should be dropped if no adjustment can be made.

- Pre-service labor issues include difficulties in obtaining the referrals necessary, authorizations for additional services and availability of ancillary services within the plan.
- Post-service labor issues include collection problems such as delays in reimbursement, non-covered charges for physician assistants or nurse practitioners and unacceptable bundling regulations.

- The patient population analysis involves review of the overall patient base supplied by the carrier, which permits a large reduction in the fee schedule. If the patient base is minimal, then why participate at a reduced fee? A 10 percent patient base should be considered a minimum for insurance participation.

Continued insurance dependency analysis involves identifying carrier coverage issues, collections and appeals concerns, quantity and quality of the patient base, etc. The analysis ends when you stop looking. The analysis provides patient patterns, reimbursement reliability and ultimately can lead to greater stability with good forecasting and projections while moving to improve patient base and reimbursement conditions.
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3) Access expert views from all sides of the ASC world.

### PROGRAM SCHEDULE

#### Pre Conference – Thursday, June 13, 2013

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<td>11:00 – 5:00 pm</td>
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<td>11:30 – 4:30 pm</td>
<td>Concurrent Sessions</td>
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<td>12:30 – 5:45 pm</td>
<td>A. Keys to Keeping Surgery Centers Profitable Business</td>
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<td>5:45 – 7:00 pm</td>
<td>F. Developing the Right Clinical Environment for Complex Spine and Orthopedic Cases</td>
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#### Main Conference – Friday, June 14, 2013

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<td>7:00 – 8:00 am</td>
<td>Continental Breakfast and Registration</td>
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<td>8:00 – 5:00 pm</td>
<td>Main Conference, Including Lunch and Exhibit Hall Breaks</td>
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#### Conference – Saturday, June 15, 2013

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<tr>
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<td>Conference</td>
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### Thursday, June 13, 2013

**11:00 – 4:30 PM**
Registration and Exhibitor Set up

**Concurrent Sessions:**
- **Track A** - Improving Profits
  - Track B - Spine
  - Track C - Pain Management and Spine
  - Track D - Orthopedics
  - Track E - Business and Profitability Issues; Revenue Cycle; Managed Care Billing, Coding and Contracting for ASCs
  - Track F - Quality, Infection Control, Accreditation, Management

**12:30 – 1:10 PM**
A. Keys to Keeping Surgery Centers Profitable Business
Robert Zasa, MSHHA, FACMPE, Managing Partner and Founder, ASD Management, Doug Golwas, Senior Vice President, Medline Industries, Inc., Mike Lipomi, President & Chief Executive Officer, Surgical Management Professionals, Jimbo Cross, Vice President Acquisitions & Development, Ambulatory Surgical Centers of America, moderated by Barton C. Walker, Partner, McGuireWoods LLP

**1:15 – 1:55 PM**
A. ASC Roundtable: Outlook for Investment and M&A Activity in the ASC Sector
Jason Cagle, Senior Vice President, General Counsel and Acquisitions, United Surgical Partners International, Inc., Matt Searles, Managing Director, Merritt Healthcare, and Todd J. Mello, ASA, AVA, MBA, Partner, HealthCare Appraisers, Inc., moderated by Scott Becker, JD, CPA, Partner, McGuireWoods LLP

**B. Moving Spine Procedures to ASCs - Key Business and Clinical Issues**
Paul Swaegler, MD, Seattle Spine Institute, PLLC, Richard Kube, MD, CEO, Founder & Owner, Prairie Spine & Pain Institute, moderated by Jeff Leland, Chief Executive Officer, Blue Chip Surgery Center Partners

**C. Interventional Pain Management - New Concepts to Reduce ER Visits, Hospitalizations and Re-Admissions**
Scott Glaser, MD, DABIPP, Pain Specialists of Greater Chicago

**D. Succeeding in the Face of Challenges - Core Strategies from the Front Line**
Charles R. “Charley” Gordon, MD, Neurosurgeon and Co-founder, Texas Spine and Joint Hospital

**E. Benchmarking the Financial Solvency of an ASC**
Rajiv Chopra, Principal and Chief Financial Officer, The C/N Group

**F. Risk Management as Applied to Adding Spine Procedures**
Carol Hiatt, BSN, RN, LHRM, CASC, CNOR, Consultant and Accreditation Surveyor, Healthcare Consultants International

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Register Online at http://www.regonline.com/11thorthopedicspineASC
2:00 – 2:35 PM
A. Utilizing Spine Cases to Improve the Profitability of Underutilized Poorly Performing ASCs
Chris Bishop, Senior Vice President, Acquisitions & Business Development, Blue Chip Surgical Center Partners

B. The Best Ideas for Marketing Spine and for Patient Development
Jimmy St. Louis, MBA, MS, PMP, Chief Executive Officer, Advanced Healthcare Partners, Bob Reznik, MBA, President, Prizm Development, Inc., Jeff Leland, Chief Executive Officer, Blue Chip Surgical Center Partners, Daniel Goldberg, Chief Executive Officer and Creative Director, Gold Medical Marketing, moderated by Peter S. Cunningham, President, CCO Healthcare Partners, LLC

C. Intradiscal Biologics Injections for Mild to Moderate Disc Disease
Board of Directors, Spalding Surgery Center, Beverly Hills, CA, Board of Directors, American Board of Neurophysiologic Monitoring

D. Key Steps to Improve Profits in Orthopedic Driven ASCs
Rajiv Chopra, Principal, The C/N Group, Gregory P. Deconciliis, PA-C, CASC, Administrator, Boston Out-Patient Surgical Suites, and Brian Brown, Regional Vice President of Operations, Meridian Surgical Partners, moderated by Molly Gamble, Associate Editor, Becker’s Healthcare

E. ACO Network Models - Trends and Considerations
Thomas Dixon, Associate Director, Health System Strategy and Kara Fleming, Director, Healthcare, Navigant

F. Infection Control in ASCs - 10 Key Best Practices
Jean Day, RN, CNOR, Director of Clinical Operations, Pinnacle III

3:20 – 4:00 PM
KEYNOTE PANEL
A. Can ASCs Profits Through Spine and Orthopedics - What Works Business Wise and Clinically
Jeff Peo, Vice President Acquisitions & Development, Ambulatory Surgical Centers of America, Nader Samii, Chief Executive Officer, National Medical Billing Services, David Rothbart, MD, FAANS, FACS, Medical Director, Spine Team Texas, moderated by Brad Gilbert, former Professional Tennis Player, World-Renowned Tennis Coach and Analyst for ESPN

B. The Best Strategies for the Next 5 Years
Brent W. Lambert, MD, FACS, Principal and Founder, Luke Lambert, CFA, CASC, Chief Executive Officer, Ambulatory Surgery Centers of America, moderated by Scott Becker, JD, CPA, Partner, McGuireWoods LLP

C. The Right EMR Strategy for Your Center
Robert Brownd, Director of Business Development, Surgical Notes

D. Valuing ASCs and Physician Practices
Todd Mello, ASA, AVA, MBA, Principal & Founder, HealthCare Appraisers, Inc.

E. Great Ideas on Purchasing Smarter
Jon Pruitt, Vice President of Procurement Solutions, Provista Inc. and Robert Haze, Administrator, Institute for Orthopaedic Surgery in Las Vegas

F. Using Reprocessing to Reduce Costs
Timothy Merchant, Vice President of Sales, MEDISISS - Medline Industries, Inc.

4:05 – 4:50 PM
KEYNOTE PANEL: The Mix of Business and Politics - Healthcare 2013
Brent Lambert, MD, FACS, Principal and Founder, Ambulatory Surgical Centers of America, John Dietz, MD, Chairman, OrthoIndy, Kenny Hancock, President and Chief Development Officer, Meridian Surgical Partners, and Charles R. “Charley” Gordon, MD, Texas Spine and Joint Hospital, moderated by Brad Gilbert, former Professional Tennis Player, World-Renowned Tennis Coach and Analyst for ESPN

5:45 – 7:00 PM
Networking Reception, Cash Raffles and Exhibits

Friday, June 14, 2013

7:00 – 8:00 AM
Registration and Continental Breakfast

8:00 – 8:10 AM – Introductions

8:10 – 8:55 AM
KEYNOTE PANEL: The Changing Role of Spine Surgery
Richard N.W. Wohls, MD, JD, MBA, South Sound Neurosurgery, PLLC, Kenneth Pettine, MD, Founder, The Spine Institute and Loveland Surgery Center, Jeff Leland, Chief Executive Officer, Blue Chip Surgery Center Partners, Stephen H. Hochschuler, MD, Texas Back Institute, moderated by Forrest Sawyer, veteran Television Journalist and Entrepreneur in Innovative Healthcare

9:00 – 9:45 AM
KEYNOTE PANEL: What Will Healthcare Reform Mean for Orthopedics, Spine, Pain Management and ASCs
James J. Lynch, MD, FRCSI, FAANS, Board-Certified and Fellowship-Trained Spinal Neurosurgeon, Spine Nevada, Luke Lambert, CFA, CASC, Chief Executive Officer, Ambulatory Surgical Centers of America, Robert Murphy, Chairman and Founder, Murphy Healthcare Group, Brian Cole, MD, MBA, Professor, Dept. of Orthopedics, Chairman, Dept. of Surgery, Rush OPH, Shoulder, Elbow and Knee Surgery, Section Head, Cartilage Restoration Center at Rush, Team Physician, Chicago Bulls and Chicago White Sox, A. N. Shamie, MD, UCLA Spine Surgery, moderated by Forrest Sawyer, veteran Television Journalist and Entrepreneur in Innovative Healthcare

9:45 – 10:15 AM
Networking Break and Exhibits

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10:15 – 10:55 AM
A. The Quantum Shift in Orthopedic and Spinal Implant Strategy
James J. Lynch, MD, FRCrSI, FAAnS, Board-Certified and Fellowship-Trained Spinal Neurosurgeon, Spine Nevada

B. Key Concepts to Improve the Profitability and Outcomes of Spine Programs
Kenneth Pettine, MD, Founder, The Spine Institute and Loveland Surgery Center; Timothy T. Davis, MD, DABNM, DABPMR, DABPM, Director of Interventional Pain and Electrodiagnostics, The Spine Institute, Center for Spinal Restoration; Larry Teuber, MD, President, Medical Facilities Corporation; and Stephen H. Hochschuler, MD, Texas Back Institute, moderated by Scott Becker, JD, CPA, Partner, McGuireWoods LLP

B. Spine Surgery - The Next Five Years
David J. Abraham, MD, The Reading Neck & Spine Center, Johnny C. Benjamins, MD, Pro Spine, Khawar Siddique, MD, MBA, Spine Surgery, Board Certified, American Board of Neurosurgery, Spine Center, Cedars-Sinai Medical Center, and Rafe Sales, MD, Summit Spine Institute, moderated by Gretchen Heinz Townshend, Associate, McGuireWoods LLP

C. The Importance of Measuring Clinical Outcomes for Pain Management - The Use of Clinical Quality Outcomes to Measure the Best Value of Care
Fred N. Davis, MD, Clinical Assistant Professor, Michigan State University, College of Human Medicine

D. Tough Coding & Billing Issues for Pain Management
Lisa Rock, President, National Medical Billing Services

E. Orthopedic and Spine Contracting - A Review of Cost Analysis for Orthopedic and Spine and How to Present and Negotiate with Payors
I. Naya Kehayes, MPH, Managing Principal, McGuireWoods LLP

F. Developing a Patient-Centric Business Model: Why Your ASC Needs to Put Patients First to Thrive in 2013
Dotty J. Bollinger, RN, JD, CASC, LHRM, Chief Operating Officer, Laser Spine Institute

2:40 – 3:10 PM
John Prunskis, MD, FIPP, President and Medical Director, Illinois Pain Institute, Ara Deukmedjian, MD, Chief Executive Officer and Medical Director, Deuk Spine Institute, moderated by Holly Carnell, Associate, McGuireWoods LLP

B. Comparing the Reimbursement of Spine Procedures in ASCs vs. Hospitals
Richard N.W. Wohns, MD, JD, MBA, South Sound Neurosurgery, PLLC

C. Can ASCs Still Profit From Anesthesia? A Review of OIG Guidance, Models and Risks
Michael Simon, MD, North American Partners in Anesthesia, moderated by Scott Becker, JD, CPA, Partner, McGuireWoods LLP

D. The 5 Most Important Issues Facing Pain Management
Laxmaiah Manchikanti, MD, Chief Executive Officer and Chairman of the Board, American Society of Interventional Pain Physicians

E. Orthopedic and Spine - Best Clinical Practices
David Rothbart, MD, FACS, FACPE, Medical Director, Spine Team Texas

F. The Conversion of an ASC to an HOPD - The Key Issues, The Pros and Cons and the Process
Kenneth Faw, MD, Evergreen Surgery Center, Neil Johnson, Senior Vice President and Chief Operating Officer, Evergreen Healthcare

3:10 – 3:40 PM
A. New Initiatives in Spine and Pain Management
Robert S. Bray, Jr., MD, Neurological Spine Surgeon, D.I.S.C. Sports & Spine Center; Fred N. Davis, MD, Clinical Assistant Professor, Michigan State University, College of Human Medicine, ProCare Research, ProCare Systems, John A. Carrino, MD, MPH, Associate Professor of Radiology and Orthopedic Surgery, Johns Hopkins University School of Medicine, and Laxmaiah Manchikanti, MD, Chief Executive Officer and Chairman of the Board, American Society of Interventional Pain Physicians, moderated by Scott Becker, JD, CPA, Partner, McGuireWoods LLP

B. Outpatient Cervical Disc Arthroplasty
Richard N.W. Wohns, MD, JD, MBA, South Sound Neurosurgery, PLLC

C. The Latest Development in Stem Cell Treatments as Applied to Spine
Kenneth A. Pettine, MD, Founder, The Spine Institute and Loveland Surgery Center

D. How a Hospital/Physician ASC JV Affects Physician Alignment and Investment Performance
Tom Mallon, Chief Executive Officer and Founder, and Jeffrey Simmons, Chief Development Officer, Regent Surgical Health

E. Orthopedic and Spine Contracting – A Review of Cost Analysis for Orthopedic and Spine and How to Present and Negotiate with Payors
I. Naya Kehayes, MPH, Managing Principal, McGuireWoods LLP

F. Developing a Patient-Centric Business Model: Why Your ASC Needs to Put Patients First to Thrive in 2013
Dotty J. Bollinger, RN, JD, CASC, LHRM, Chief Operating Officer, Laser Spine Institute

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Saturday, June 15, 2013

7:15 - 8:10 am – Continental Breakfast

8:10 – 8:55 AM
A. Orthopedic, Spine and Pain Management Practices and ASCs - 6 Defining Issues
R. Blake Curd, MD, Board of Directors
Chairman, Surgical Management Professionals
C. David Geier, Jr., MD, Orthopedic Surgeon, Chair, Surgical Management Professionals
Director, MUSC Health Medical University of South Carolina, The Sev Group

B. How Doctors Form ACOs - A Success Story
John Venetos, MD

C. The emerging use of Social Media in Orthopedics
Carlos Roman, MD, South Carolina Medical Center

D. Key Developments in the Spine Device and Implants Arena
John Venetos, MD, Board of Directors
Chairman, Surgical Management Professionals

11:00 – 11:35 am
The 5 Most Common Hiring Mistakes and How to Avoid Them
Greg Zoch, Partner & Managing Director, KRAVZ

1:55 - 2:35 pm
Educating Your Staff Surgeons, What it Costs the ASC When They Enter the OR
Sev Hrywnak, MD, Chief Executive Officer, The Sev Group

2:40 - 3:10 pm
Orthopedic Instrumentation and Its Challenges for Reprocessing
Stephen Kovach, Educator, Healthmark Industries

3:45 - 4:20 pm
Documentation in an Era of ICD-10 and RAC
Tim Meakem, MD, Medical Director, Provation Medical

5:00 – 6:00 PM
Networking Reception, Cash Raffles & Exhibits

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Improving Profitability and Business and Legal Issues

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**Geoff Colvin**  
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Geoff Colvin is an award-winning thinker, author, broadcaster, and speaker on today’s most significant trends in business. As FORTUNE’s Senior Editor-at-Large, he has become one of America’s sharpest and most respected commentators on leadership, globalization, wealth creation, the infotech revolution, and related issues. As anchor of *Wall Street Week with FORTUNE* on PBS, he spoke each week to the largest audience reached by any business television program in America.

Colvin’s groundbreaking bestseller *Talent Is Overrated: What Really Separates World-Class Performers From Everybody Else* received the Harold A. Longman Award for Best Business Book of the Year and has been published in a dozen languages.

Colvin is one of America’s preeminent business broadcasters. He is heard daily on the CBS Radio Network, where he has made over 10,000 broadcasts and reaches seven million listeners each week. He has appeared on *Today*, *The O’Reilly Factor*, *Good Morning America*, *Squawk Box*, *CBS This Morning*, ABC’s *World News*, CNN, PBS’s *Nightly Business Report*, and dozens of other programs.

**Brad Gilbert**  
**Brad Gilbert is a former professional tennis player, world-renowned tennis coach and analyst for ESPN. Born in Oakland, California, Gilbert was a successful collegiate tennis player and reached the finals of the NCAA championship for Pepperdine University in 1982. He joined the professional tour that same year and went on to win 20 ATP top-level singles titles throughout his career.**


Gilbert has served as a tennis analyst for ESPN since 2004, covering major tournaments such as Wimbledon, the US Open, the French Open and Davis Cup play.

**Forrest Sawyer**  
**Forrest Sawyer has had a diverse career, first as one of America’s most respected television journalists, and more recently as an entrepreneur in innovative health care.**

Mr. Sawyer is today an advisor and board member of Edison Pharmaceuticals, the world leader in the study of mitochondrial disease. He is also a co-founder of Ampere Life Sciences, a newly launched company developing medical and functional foods targeting antioxidant deficiencies. In addition to unique research and development programs, both companies are building innovative communication platforms.

As a journalist, Mr. Sawyer has over 24 years of experience reporting from around the world. He is a veteran of ABC, CBS, and MSNBC. He has anchored the ABC magazine programs Day One and Turning Point, as well as World News Sunday, and Good Morning America. For a decade Mr. Sawyer was the primary replacement anchor on ABC’s *Nightline*.

Mr. Sawyer is the founder of FreeFall Productions, an award-winning documentary production company. He has reported documentaries for ABC News, MSNBC, Frontline and the Discovery Networks.
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Quality & Cost-Effective Spinal Imaging of the Future: Q&A With Dr. Eric Bailey of NeuroLogica

By Laura Miller

Eric M. Bailey, MD, is the president, founder and CEO of NeuroLogica, a Boston-based company focused on medical imaging equipment for healthcare facilities and private practices worldwide.

He developed the first closed loop micro-machined accelerometer and gyroscope, and holds more than 20 patents for his innovations. Previously, Mr. Bailey was vice president of computed tomography engineering at Analogic Corp., where he developed several medical and security CT systems and was instrumental in developing the first multi-slice CT scanner used in United States airports.

With NeuroLogica, Mr. Bailey has focused on developing portable CT scanning equipment that can be moved from the imaging room into the operating room, intensive care unit or ambulances to treat patients more efficiently.

“We can pick up patients with strokes and scan them in the ambulances so they get treatment right away,” says Mr. Bailey. “We are high quality imaging engineers that are on a real mission in life to change medicine in areas where this type of imaging hasn’t been available.”

Mr. Bailey discusses how modern imaging technology can improve orthopedic and spine care and where the field is headed in the future.

Q: Orthopedics and spine are rapidly developing fields for all types of technology. How are advancements in imaging equipment making a difference?

Dr. Eric Bailey: It’s streamlining the surgical process and preventing complications and revision surgeries by bringing the technology into the OR. Our goal is to really give surgeons the gift of three-dimensional X-ray vision; Superman glasses for surgeons. They are super men and women — they have super knowledge, but no one has given them super vision. That’s the skills I have in life and our mission is to improve their ability to treat patients.

NeuroLogica has roots in spine, but the equipment can also be used for many other parts of the body. It could have value for knee and complex hip surgery. For example, if there is an older woman who has osteoporosis, this person might fall and break her hip. That hip will fracture like a wine glass and it’s like having to put Humpty Dumpty back together again. There hasn’t been an X-ray machine that could take a whole picture of the hip at once. Now, with these new developments, CT scanners can get the entire anatomy in one shot.

We’re going to find out that this is a very valuable feature going down the road.

Q: How does portable CT scans and three-dimensional technology impact the level of patient care?

EB: These images can help prevent second surgeries and complications. Patients might suffer damage and require more care or compensation for malpractice. Spine and brain surgeons are dealing with a very delicate anatomy and there are some complications. I think this rate will be driven down drastically by having more accurate imaging.

That is also a cost-savings because if you treat the patient better when they are having a stroke or spinal issue and prevent more damage, they get better faster and leave the hospital sooner. This is especially important if the hospital is paid a lump sum for one procedure because if they patients stay at the hospital for five days postoperatively, the hospital loses money. Faster recovery times are more economical for the patient, hospital and insurance economy.

Q: What advantages do surgeons and providers realize from using modern imaging technology?

EB: Surgeons have been using a two-dimensional X-ray for pictures in the past. You only get the picture from one angle and all dimensions are on top of one another. The surgeon has to look at these views and put them together in his or her own brain. With new equipment like the BodyTom, we are able to take large pictures — like the entire spine — that are three-dimensional.

Additionally, the technology is now available to surgeons at any time during the procedure, so they don’t have to wait until the surgery is finished to see whether their implants are placed correctly, or whether there is internal bleeding. This is a huge advantage.

Q: How does modern imaging technology change the surgeon’s routine and procedure? How can they realize the most clinical benefit?

EB: A lot of patients need a CT scan before surgery, and sometimes they don’t realize until surgery has already started that the patient has a life threatening condition. In this case, the patient has to go down for a CT scan in the middle of the procedure while they are still under anesthesia. That can be a life threatening situation, especially considering the delicate area around the spinal cord.

Patients also undergo postoperative CT scans that can show whether the surgeon placed screws or fixation correctly and whether there is any bleeding. They don’t know until the images are taken, after the patient has already recovered from anesthesia. The patient is brought down to radiology and that area isn’t sterile. Then if the surgeon realizes the screws are placed right or there is a hemorrhage, the patients go back to the operating room.

With emerging technology surgeons can use portable CT scans to take these images in the OR and fix any problems before the patient awakes from surgery. One of the first hospitals where we installed this technology one of the surgeons was doing a complex cervical spine procedure with a four-level fixation. The procedure began and at some point the surgeon took images and saw everything was wrong; they had to start over. The surgery was done properly after that.
If the surgeon didn’t catch the initial issue, the patient would have had to do a second surgery. The surgeon said he would never do another spinal surgery case without a CT scanner in the OR.

**Q:** There is a lot of concern with the cost of care in today’s healthcare system. Will purchasing this technology be economically viable?

**EB:** These developments create an advantage that is cost-effective, and I don’t think they will be difficult for hospitals to purchase. One of our first deliveries last year was to the country of Haiti to help communities ravaged by the earthquake. Their conventional CT scanners were no longer capable of running and at any one time, these small battery operated CT scanners were the only operational imaging equipment in Haiti. We shipped them to provide medicine in one of the poorest nations in the world and found a way to make it economically viable.

Some of our earliest luminaries were also community hospitals in the United States. In hospitals where surgeons perform spinal operations, they tie up the main CT scanner for long periods of time with their patients and others in the waiting room with an non-emergent issue, such as a kidney stone, are left waiting.

Hospitals make a lot of revenue on imaging and it’s a very profitable service. With new models available they can perform the CT scans in the OR and bill for them along with the surgeries. It’s a real CT scan so they can get paid for those images. There is a revenue stream that can offset the cost of the equipment. To some degree, this is the first step in making these images more affordable.

Finally, spine surgery is also competitive from a marketing standpoint. Four of five people will have back pain that will cause them to have work loss at some point in their lives. A lot of people get to the point where they need medical care and traditionally people would go to their community hospital. Now, they are looking on the internet, TV and other advertisements to find the place that will give them the best care. People move around more and go where they think they’ll have superior care.

It’s lucrative for hospitals to advertise they have better technology and how their patient outcomes have improved.

**Q:** Hospitals are facing Medicare rate cuts, and surgeons aren’t far behind. Commercial payors often follow government payor trends as well. Will payors support this new technology?

**EB:** The government and private payors are more supportive of any technology today that can improve the outcomes and shorten length of stay in hospitals. Medicare has been changed under healthcare reform, and they are releasing requirements for hospitals that tie payments to the quality of treatment. Everything is quality-based. They don’t want to see negative outcomes, infections or complications because if your numbers are too high they won’t receive payment.

Surgeons know medicine is moving to more qualitative indexes that are tied to payment and want to improve their outcomes and patient experience.

**Q:** Where do you see imaging technology headed in the future?

**EB:** One of the major innovations in spine surgery was navigation systems. The navigation systems can operate off of preoperative CT images. We have added to that cycle new CT images to make sure the navigation is on track. I perceive a new technology that will add to those two: robotic assisted equipment that will drastically improve the accuracy of the procedure. In urological and gynecological surgery, the da Vinci robot has done that.

There are companies, universities and major researchers investigating robotic equipment to aid in the delivery of screws and needles in spine. That doesn’t eliminate the surgeon; it makes them more important and allows them the tools to perform a more accurate procedure. Robots don’t have eyes; humans have to see for them and make surgical decisions.

We are adding it all together and I think that’s the way things will go in the years to come.

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### 6 Steps to Optimize OR Efficiency & Cut Costs With Minimally Invasive Spine Surgery

**By Laura Miller**

Rian R. Gantwerker, MD, of The CranioSpinal Center of Los Angeles, currently uses minimally invasive spine techniques with patients and has seen the clinical and economic value of these less invasive procedures.

“Minimally invasive techniques are becoming the standard way to approach surgery because there is less postoperative pain, earlier mobilization, shorter hospital stays and better quality for the patient,” says Dr. Gantwerker. “It’s time for us to move forward into that realm. Surgeons who are facile with the minimally invasive approach stand to become leaders in the community and guide where things go.”

Here, Dr. Gantwerker discusses six steps for optimizing the cost-effective qualities of minimally invasive technique.

1. **Overcome the learning curve.** For spine surgeons who were trained with the traditional open surgical techniques, there is still a learning curve to incorporating less invasive procedures into their practice.

   “Doing minimally invasive surgery involves a certain amount of time for the learning curve,” says Dr. Gantwerker. “Initially, sometimes it might take longer, but as the surgeon becomes more comfortable with the OR setting and the individual staff there, they all will become more efficient.”

   Even after mastering the technique in the cadaver lab, incorporating minimally invasive procedures into the OR will take time and the first few cases may last longer than open surgery. Whether operating through a tubular retractor or simply using a smaller incision than a traditional microdiscectomy, it takes time to get used to the restricted space.
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“I think there is much more benefit to doing things in a minimally invasive way and allowing the first few lumbar microdiscectomies to take a few hours than sticking with the old procedures,” says Dr. Gantwerker. “As the surgeon and team get more comfortable with each other, they can move quickly and cut it down to 90 minutes or an hour while maintaining patient safety. I don’t think this is a barrier, I think it’s a natural evolution.”

2. Stick with experienced operating room staff. Spine surgeons must have a high level of expertise among their operating room staff to appropriately utilize OR time. Staff members should be familiar with the minimally invasive technique and experienced with the surgeon, which means working with the same team for every surgery if possible.

“Everyone should know everyone else and be comfortable in the operating room, who the patient is and what is being done,” says Dr. Gantwerker. “There should be specialized teams formed where people know spine very well and others are cross trained to speed up the process. There is a lot of teamwork in the OR and everyone has to be comfortable working together and having an open and efficient discussion when issues come up.”

Just like surgeons, the operating room staff will have a learning curve when you first begin performing the minimally invasive procedures. However, with the right preparation work and repetition, the staff will become as efficient as the surgeon in the operating room.

3. Make sure proper equipment is available. Equipment efficiency is one of the most important elements for making sure a case runs smoothly. Have the proper equipment available and make sure there is a replacement if necessary. Your nurse should be in charge of coordinating these materials before the case begins.

“If, for example, a certain cervical retractor isn’t available, the nurse should communicate that to the physician and have alternative options ready,” says Dr. Gantwerker. “All it really takes is a couple of hours when setting up the spine service to go over preferences. Make sure all spine surgeons are present so there is uniformity of practice; it will make the service line more efficient because there will be less hunting for different equipment.”

4. Patient documentation and checklists should be ready on time. Make sure all the appropriate patient documentation and checklists are ready to go when you bring the patients back to their room. This will optimize your time with the patient and ensure a smooth hand off from the circulating nurse.

“When you don’t have a good hand off from the circulating nurse, there is a delay,” says Dr. Gantwerker. “The pre-op nurse could be an organizing station for all the critical data. Verification of consent, review of preop laboratories, marking of the patient, could all be done more quickly at this stage. I think communication is key for movement through the process.”

The pre-op nurse can be an organizing person to make sure the patient’s chart and data for the case is ready to go before the surgeon comes in to mark the surgical site. This will allow for a smooth operating room.

5. Conduct a time out while the patient is still awake. All operating rooms have a “time out” before beginning surgery to make sure everyone is on the same page about what procedure is being performed, what the surgeon needs for the case and confirm everyone has gone through proper infection control policy. Often, this comes as the last step before surgery, but Dr. Gantwerker suggests doing the “time out” before the patient receives anesthesia to further decrease the risk of complications.

“One way to do this is that when the patient comes into the room, do the time out while the patient is awake and then induce anesthesia,” says Dr. Gantwerker. “That way there are no pauses at inopportune times and the patient participates in the process, which is the a great way to avoid errors and enhance safety.”

The surgeon should also create a comfortable environment for the surgical staff during these time outs so they can raise questions without fear of being reprimanded for slowing down the surgeon. High quality will supersede high case volume in terms of cost and patient satisfaction, regardless of the surgical technique.

“Doing more cases isn’t always the answer,” says Dr. Gantwerker. “Doing cases safely and efficiently is key. Doing three or four cases and being able to say there isn’t confusion or problems with the wrong level are better than having a high volume with a high risk for problems.”

6. Fewer resources are used in minimally invasive surgery. Once surgeons overcome their learning curve, minimally invasive techniques often cost less overall than open surgical technique because operating room time is shorter, there is less blood loss and length of stay at hospitals is cut. Because the operating time is shorter, patients use less post-operative analgesia; because there is less blood loss, patients are less likely to need transfusions.

The patient’s length of stay at the hospital is shortened, which is a great cost savings. Some procedures are now also being done in ambulatory surgery centers, which lowers the cost even more.

“There are smaller incisions, less post-op pain and quicker mobilization with minimally invasive spine surgery, which makes it conducive to the outpatient setting,” says Dr. Gantwerker. “There are some exceptions where a minimally invasive surgery would not be appropriate for the outpatient setting, while others have 23-hour post-surgical stays. When the patients are safely managed, I think there is real regard given to those kinds of cases and surgery centers.”

However, not all payors will cover spine procedure in ambulatory surgery centers, despite a growing body literature showing these procedures are safe and cost-effective in an outpatient setting.

“Surgery centers that do spine cases now can be leaders to convince others there is a real advantage to minimally invasive surgery and that it fits within the ambulatory surgical center,” says Dr. Gantwerker. “There are a lot of community leaders out there who have surgery centers with good reputations and outcomes. We need to get them together to speak to Congress or their local representatives and show them surgery can be done in the outpatient setting safely. Either we need to hop on the train or be left behind at the station.”

There are downsides, however. Minimally invasive surgery requires increased fluoroscopy time. Increased radiation exposure of patient, surgeon and staff means possible long-term effects of radiation. Even with proper equipment, complications for surgeon and staff such as cataracts can still occur. Also, minimally invasive surgery does require additional training for staff with sometimes-complicated retractors and hardware. There is also initially a large up-front cash outlay for specialty equipment. In the long-term, though, with dedication of all the surgeons and staff, and commitment to excellent care and outcomes, centers can reap the benefits of a dedicated minimally invasive spine line.
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(continued from page 1)

Todd Albert, MD, is the president of Rothman Institute and the chairman of the department of orthopedics at Thomas Jefferson University and Hospitals, both in Philadelphia. He is a past president of the Cervical Spine Research Society and past chair of the Meeting of Advanced Spinal Techniques for the Scoliosis Research Society.

Howard An, MD, served as the director of spine surgery for eight years at the Medical College of Wisconsin before moving to Rush University Medical Center, where he now serves as the director of the division of spine surgery and spine fellowship program.

“I am excited about the future of orthopedic and spine surgery in that the treatment options are becoming less invasive and biological or tissue engineering approach to many orthopedic conditions may become a reality, including intervertebral disc degeneration,” says Dr. An.

Neel Anand, MD, is the director of spine trauma at Cedars-Sinai Spine Center in Los Angeles. He is the treasurer with the Society for Minimally Invasive Spine Surgery.

“The ability to truly help someone who has been disabled with pain and see them in the follow-up after surgery as a completely new person leading a pain free life is the most rewarding part of my job,” says Dr. Anand. “I take tremendous pride in helping my patients regain a high quality of life that was taken from them because of their condition.”

D. Greg Anderson, MD, is director of the spine section of the Orthopaedic Research Laboratory at Thomas Jefferson University, in Philadelphia. He is currently the president of the Society of Minimally Invasive Spine Surgery.

Gunnar B. J. Andersson, MD, is chairman emeritus and chair of spinal deformities at Rush University Medical Center in Chicago. He has received the Freedom of Movement Award from the Arthritis Foundation.

“I am convinced that there is a biological solution to many of the problems we treat surgically today,” says Dr. Andersson. “I don’t know whether it’s going to happen in the next decade, but certainly at some point we will be able to treat degenerative disc disease and its consequences biologically. Having said that I think one has to be realistic about the effect of aging on all tissues of the body and the futility in trying to prevent indefinitely what ultimately is not preventable. If we can give people a better quality of life for more years I would be highly satisfied.”

Hyun Bae, MD, is the co-director of the spine fellowship program at Cedars-Sinai Spine Center in Los Angeles. He was among the first surgeons to use growth factor tissue engineering for intervertebral discs, multi-level artificial disc replacement for both lumbar and cervical spine and other medical devices.

Robert Banco, MD, is a member of Boston Spine Group and previous spine section chief for New England Baptist Hospital in Boston, and on the board of directors for the American Board of Spine Surgeons. He has participated in 12 FDA IDE studies with research interests including lumbar fusions and prosthetic disc replacement.

Gordon Bell, MD, is the director of the Center for Spine Health at Cleveland Clinic, where he has been the head of the spinal surgery section since 1994. He has held leadership positions with the North American Spine Society and the International Society for the Study of the Lumbar Spine.

Edward C. Benzel, MD, is the chairman of the department of neurosurgery at Cleveland Clinic and former director of the Center for Spine Health. He is one of the founding members of the Lumbar Spine Research Society and was co-chairman of the editorial review board for the Journal of Neurosurgery.

Scott Blumenthal, MD, was among the first spine surgeons to perform lumbar artificial disc replacement in the United States. He is a spine surgeon with Texas Back Institute in Plano and has been a spine consultant with the Dallas Mavericks. He is one of the leaders of TBI’s Center for Disc Replacement.

“The most fulfilling aspect of my career has been being the lead FDA investigator and performing the first artificial disc in the U.S.,” says Dr. Blumenthal. “I am most excited about disc regeneration with stem cells, genetic engineering or other proteins or materials [in the future].”

Oheneba Boachie-Adjei, MD, is the chief of the scoliosis service at Hospital for Special Surgery in New York City. He is also the founder and president of the Foundation of Orthopaedics and Complex Spine. He received the Humanitarian Award from the American Academy of Orthopaedic Surgeons and has been president of the Scoliosis Research Society.

Scott Boden, MD, is a professor of orthopedic surgery and director of the Emory Orthopaedics & Spine Center in Atlanta.

“I am excited about continued progress in the area of second generation biologic solutions for bone regeneration and potentially first generation solutions for cartilage regeneration/repair,” says Dr. Boden. “I am also excited about the opportunity to re-design a care delivery model that focuses on delivering value and service that will be required to survive in the evolving healthcare environment.”

Christopher Bono, MD, is the chief of spine service at Brigham and Women’s Hospital in Boston and serves as treasurer of the North American Spine Society. Dr. Bono is also a deputy editor for The Spine Journal and section editor for SpineLine. He previously chaired the evidence-based guideline development committee for NASS.

Charles L. Branch, MD, is the chair of the surgical sciences-neurosurgery at Wake Forest Baptist Health in Winston-Salem, N.C. He holds leadership positions...
with the Collaborative Spine Research Foundation, which was created in 2011.

“The most fulfilling aspects of my career are balanced between the opportunity to develop new lumbar fusion and minimally invasive technology and training of young neurosurgeons who have become dedicated spine surgeons,” says Dr. Branch. “Couple this with leadership roles in NASS and the American Board of Neurological Surgery, and I have helped bring the fields of neurospine and ortho-spine closer together.”

Robert S. Bray, MD, is founding director and CEO of DISC Sports and Spine Center in Marina del Rey, Calif. DISC is the official medical service provider for the US Olympic Team and Red Bull America athletes.

“Helping further the development of spine surgery into a minimally invasive approach has been and continues to be a source of great professional fulfillment,” says Dr. Bray. “Taking part in the design and application of the tools and techniques, specifically those of the microscope and microsurgical instruments, has led me first hand to experience the dramatic benefits of this approach.”

Darrel S. Brodke, MD, is the director of the University Spine Center at the University of Utah School of Medicine, vice chairman of the department of orthopedics at the University of Utah and director of the spine surgery fellowship. He is on the executive committee for the Cervical Spine Research Society and AO Spine North America.

Frank Cammisa, MD, is the chief of spine service at Hospital for Special Surgery in New York City and has expertise in computer-assisted spinal surgery. He created the National Spinal Research Foundation and is associated with the Miami Project to Cure Paralysis.

Eugene Carragee, MD, is the chief of the spine surgery division at Stanford University Medical Center and editor-in-chief of The Spine Journal.

“As a poor kid from New York’s Lower East Side, I was taught by the Christian Brother’s that the only real work was dedicated service to help people,” says Dr. Carragee. “The best part of my career has been the privilege to care for all patients in difficult circumstances to [the] best of my ability regardless of personal financial considerations here at Stanford. It has been an honor to work with residents and fellows with similar goals, who enriched my practice and my life with their energy and compassion. Wouldn’t change a thing.”

Kingsley R. Chin, MD, is a founding spine surgeon with the Institute for Modern & Innovative Surgery in Palm Beach, Fla., and former chief of spine surgery at the University of Pennsylvania Medical School in Philadelphia. He is also an inventor with 23 issued and pending patents on spinal devices.

Domagoj Coric, MD, is chief of neurosurgery at Carolinas Medical Center and president of the North Carolina Spine Society. He is a partner with Carolina Neurosurgery & Spine Associates and a member of the North American Spine Society. He has held leadership positions with the American Association of Neurological Surgeons.

Bradford L. Currier, MD, is a spine surgeon with Mayo Clinic in Rochester, Minn., and has been president of the Lumbar Spine Research Society. He also directs the Mayo Clinic’s spine fellowship and is a member of the North American Spine Society.

Bruce V. Darden, II, MD, is a spine surgeon with OrthoCarolina in Charlotte, N.C., and president-elect of the Cervical Spine Research Society. In addition to his clinical work, Dr. Darden has participated in studies comparing artificial disc replacement to anterior cervical disectomy and fusion.

Rick B. Delamarter, MD, is the vice chair for spine services at the department of surgery and co-medical director at the Cedars-Sinai Spine Center in Los Angeles. He is a pioneer of artificial disc replacement technology and has a leading interest in spinal cord injury, focusing on the use of growth factors for fusion as well as stem cells.

William F. Donaldson, MD, is the chief of the division of spine surgery at the University of Pittsburgh Medical Center. He also serves as the vice chairman for administrative service in the department of orthopedics at UPMC.

John P. Dormans, MD, is the chief of orthopaedic surgery at Children’s Hospital of Philadelphia. He is president-elect of the Scoliosis Research Society and past president of the Pediatric Orthopaedic Society of North America.

“My practice is 50 percent pediatric spine deformity and 50 percent pediatric tumor surgery here at CHOP/Penn,” says Dr. Dormans. “Spine surgery, while challenging, is intellectually and technically rewarding in that one can make a huge difference in the life of a child or young adult. Often the benefit is preventative in the sense that the deformity surgery correction prevents progressive deformity and associated conditions that would ultimately affect the quality of a patient’s life.”

Frank Eismont, MD, is the fellow education director, spine division chief and chairman of the department of orthopedics at University of Miami Health System. He is also chairman and chief of the Jackson Memorial Hospital Orthopedics services and program director for the spine surgery fellowship at Jackson Memorial.

Jeffrey Fischgrund, MD, is a spine surgeon with Beaumont Health System and editor-in-chief of the Journal of the American Academy of Orthopaedic Surgeons. He has held leadership positions within the North American Spine Society and Cervical Spine Research Society.

John Finkenberg, MD, is in private practice with Alvarado Orthopedic Medical Group and serves as the advocacy chair on the North American Spine Society board of directors. He has been chief of the orthopedic department at Alvarado Hospital Medical Center and director of the Alvarado Spine Center.

Kevin Foley, MD, is a professor of neurosurgery at the University of Health Science Center and director of complex spine surgery at Stanford F. Emery, MD, is the chair of the West Virginia University Department of Orthopaedics and has been director-elect of the American Board of Orthopaedic Surgery. He has held leadership positions with the Cervical Spine Research Society and his research has been recognized by the Scoliosis Research Society.

Thomas Errico, MD, is the chief of the division of spine surgery at NYU Hospital for Joint Diseases in New York City. He has been president of the International Society for the Advancement of Spine Surgery and North American Spine Society.

“I have been performing spine surgery for nearly 30 years and have seen immense progress in the field,” says Dr. Errico. “There however still exists many burning questions about who to operate on and what specifically should be done and can it be done successfully in a minimally invasive fashion. I look forward to answers to many of these questions as we apply a more rigorous approach to data collection and analysis of the results of spinal surgery.”

Thomas Faciszewski, MD, is a spine surgeon at Marshfield Clinic in Wisconsin and former president of the North American Spine Society. During that time, he led efforts for increased transparency of the physician-industry relationship among the NASS board of directors.

David Fardon, MD, is a spine surgeon at Midwest Orthopaedics at Rush and a previous president of the North American Spine Society. Dr. Fardon received the David Selby Award for his contributions to spine care, including the NASS clinical guidelines formation.

Richard Fessler, MD, is a spine surgeon with Northwestern Memorial Hospital and former chief of neurological surgery at the University of Chicago. He was the first surgeon in the United States to perform human embryonic spinal cord transplant and serves on the board of directors for the Society of Minimally Invasive Spine Surgery.

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Semmes-Murphy Clinic in Memphis. He is on the board of directors for the Society for Minimally Invasive Spine Surgery.

Steven Garfin, MD, is the chairman of the department of orthopedic surgery and chief of spine surgery at UC San Diego. Dr. Garfin is the president of the International Society for the Advancement of Spine Surgery.

“I am excited about the opportunity to continue to work with academic and spine surgical leaders and industry innovators on new products, concepts and ideas,” says Dr. Garfin. “This also leads to an unfortunate ‘burden’ in trying to work with insurance and government and academic spine societies in developing plans, protocols and guidelines to enhance care for spine surgery patients that will move us forward in what we can diagnose and treat.”

Zoher Ghogawala, MD, is director of the Wallace Trials Center at Greenwich (Conn.) Hospital and serves as principle investigator for several national clinical trials. He practices with CSI-Greenwich Neurosurgery and serves on the board of directors for the North American Spine Society.

Steven D. Glassman, MD, is a professor of orthopedic surgery at the University of Louisville (Ky.) and practices at Norton Leatherman Spine Center in Louisville. He is a member of the board of directors for the Scoliosis Research Society and has been a program chair for the North American Spine Society.

Jeffrey Goldstein, MD, is the director of spine service and associate director of the spine fellowship at NYU Hospital for Joint Diseases. He is on the board of directors for the International Society for the Advancement of Spine Surgery.

“The most fulfilling aspect of my career has been the opportunity to perform spine surgery at NYU Langone Medical Center Hospital for Joint Diseases with a group of some of the most accomplished spine surgeons in the world while having the privilege to care for a group of patients with a variety of spinal disorders,” says Dr. Goldstein.

Charles R. Gordon, MD, is co-founder of the Texas Spine and Joint Hospital and founder of Gordon Spine Associates, both in Tyler. He also founded the medical device company Flexaspine and holds patents for more than four spinal devices.

Richard Guyer, MD, is the director of the Texas Back Institute Spine Fellowship Program and founder and chairman of the board of Texas Back Institute Research Foundation. He served as president of the North American Spine Society.

“I chose spine surgery because the surgery is challenging and ‘high risk’ compared to other specialties in orthopedics,” says Dr. Guyer. “I also enjoy the cognitive aspects of spine as it is rarely black and white with regard to decision making of what you think is best for the patient. I also felt that it was one of the last frontiers of all the orthopedic specialties in which I could make a difference through research, publishing, training fellows and lecturing.”

Thomas T. Haider, MD, is chief of the spine division at Riverside Country Regional Medical Center and chairman of the biomedical advisory board of UCR/UCLA Thomas Haider Program in Biomedical Sciences. He is on the board of directors for the American College of Spine Surgery.

Mitch Harris, MD, is the chief of the orthopedic trauma service at Brigham and Women’s Hospital in Boston and a member of the North American Spine Society board of directors. He is also a member of the Cervical Spine Research Society and Scoliosis Research Society.

Andrew Hecht, MD, is the co-director of spine surgery at Mount Sinai Medical Center and director of the NFL Spine Care Program for retired players at Mount Sinai.

“I am most excited by the increasing emphasis not only on minimally invasive and motion preserving procedures but on advances in the understanding of the biologic of spinal disorders such as disc degeneration,” says Dr. Hecht. “Our lab continues to study basic processes involved in the pathophysiology of disc degeneration with the hope that someday this may lead to novel biologic treatments to halt or reverse the degenerative process that underlies the majority of the spinal disorders we treat.”

Michael Heggeness, MD, is the director of the spine surgery fellowship program at Baylor College of Medicine in Houston and immediate past president of the North American Spine Society.

“I view the future with both real fear and true anticipation,” says Dr. Heggeness. “I am very concerned to see how all physicians in the United States have been subjected to so many additional costs — including EMRs, e-prescribing and meaningful use — and threats (of misdirected audits), that the independent practice of medicine is rapidly disappearing. That would drastically limit choice for both doctor and patient going forward. On the other hand, I am very excited to know that molecular medicine techniques for musculoskeletal medicine will soon be a reality. This will dramatically improve many of our treatment options in the very near future.”

John G. Heller, MD, is a professor of orthopedic surgery at Emory Healthcare and on the board of directors for the Cervical Spine Research Society. He has a professional interest in spinal fusion, scoliosis and spinal tumors, among several others.

Harry Herkowitz, MD, is the chairman and director of the section of spinal surgery and the spine surgery fellowship program at William Beaumont Hospital in Royal Oak, Mich. He has served on the executive board for the North American Spine Society.

“The most fulfilling aspects of my career have been relieving severe neck and back pain and/or arm and leg pain by removing ruptured discs or bone spurs; correcting severe spinal deformities so patients can stand upright [and] stabilizing and correcting spinal fractures in patients with spinal cord injuries,” says Dr. Herkowitz. “[Additionally], doing research that improves the field of spine surgery so we can improve technology [and] patient outcomes to restore their quality of life.”

Stephen Hochschuler, MD, is co-founder of Texas Back Institute and chairman of Texas Back Institute Holdings. He is a past president of the International Society for the Advancement of Spine Surgery.

“Despite significant challenges facing medicine in general, I am quite excited by potential downstream opportunities for spine,” says Dr. Hochschuler. “There will be opportunities in telemedicine, physician extenders, integration of treatment, emphasis on prevention, application of nano and MEMS technology, development of biologic solutions, improvement in image guidance and robotics and more international integration.”

Langston Holly, MD, is an associate professor and co-chief of clinical affairs for the department of neurosurgery at UCLA Health. He is also co-director of the UCLA Spine Center and focuses on minimally invasive and image-guidance techniques.

Ken Hsu, MD, is a senior spine surgeon at San Francisco Orthopaedic Surgeons and co-inventor of the X-STOP device for minimally invasive spine surgery. He was among the first spine surgeons in the western United States to use a pedicle screw and has been president of the San Francisco Orthopaedic Surgeons Medical Group.

Serena Hu, MD, is a professor of clinical orthopedics at the University of California San Francisco with a clinical interest in adult scoliosis. Her research focus includes the prevention of metastatic fractures of the spine and disc degeneration.

Kamal N. Ibrahim, MD, is an orthopedic surgeon with M&K Orthopaedics in Oakbrook Terrace, Ill., and a president of the Scoliosis Research Society.

“When I was completing my residency training and fellowship, it was a significant time for scoliosis surgery and the management of spinal deformity,” says Dr. Ibrahim. “New knowledge about natural history of the disease was appearing in the literature. The long term results and problems with the traditional surgery of Harrington rods stated to be recognized. Emerging new procedures such as Cotrel-Debousset segmental system was revolutionary in the sur-
gical correction of scoliosis, the new development in anesthesia such as hypotension during surgery which significantly decreased blood loss, the new experience in the management of adult complex spine problems were just starting to be discussed, which almost ignored the past for the lack of knowledge.”

Ajay Jawahar, MD, is the director of medical research at the Spine Institute of Louisiana and is on the board of directors for the American College of Spine Surgery. He has a special interest in spine research and outcomes. He has obtained six grants and served as a principle investigator on several projects.

James D. Kang, MD, is the vice chairman of the department of orthopedic surgery and director of the Ferguson Laboratory for Spine Research at the McGowan Institute for Regenerative Medicine, a program of the University of Pittsburgh Medical Center. He is a member of the board of directors for the Cervical Spine Research Society.

Christopher Kauffman, MD, is in private practice around Nashville, Tenn., and serves as the professional economic and regulatory committee chair for the North American Spine Society. He is the NASS representative to the American Academy of Orthopaedic Surgeons Coding, Coverage and Reimbursement Committee.

A. Jay Khanna, MD, is an associate professor at Johns Hopkins Medicine with a research interest in the clinical and functional outcomes after spine surgery.

“I chose to become a spine surgeon because spine is one of the few areas in orthopedic surgery and neurosurgery that hasn’t already been ‘figured out,’” says Dr. Khanna. “The spectrum of pathologies and treatment options are diverse and we are still trying to determine which treatment options are the best for which patients; I find this intellectually interesting and challenging.”

Larry Khoo, MD, is the director of the Spine Clinic of Los Angeles on the Good Samaritan Medical Center campus. He is on the board of directors for the Society for Minimally Invasive Spine Surgeons and previously served as co-director of the UCLA Comprehensive Spine Center.

Choll W. Kim, MD, is director of the Minimally Invasive Spine Center at Alvarado Hospital and founder of the Society for Minimally Invasive Spine Surgery. He also serves as an associate professor at the University of California San Diego and trains specialists throughout the country on image-guidance and navigation techniques for spinal surgery.

Carl Laurysen, MD, is the co-director of spine research and development at Olympia (Wash.) Medical Center and past president of the Congress of Neurological Surgeons. He practices at Tower Orthopaedics. He previously directed the advanced neurosurgical spine programs at Barnes-Jewish Hospital in St. Louis.

Mesafin A. Lemma, MD, is the division chief of Johns Hopkins orthopedic and spine surgery at Good Samaritan Hospital and co-director of spine surgery. He was the first spinal reconstructive surgeon at Johns Hopkins Division at Good Samaritan and serves as a professor at Johns Hopkins University in Baltimore.

Lawrence G. Lenke, MD, is the chief of spinal surgery at Washington University School of Medicine in St. Louis and director of the Complex Spinal Deformity Institute and fellowship at Washington University. He is on the board of directors for the Scoliosis Research Society, where he is a past president.

Isador Lieberman, MD, is director of the scoliosis and spine tumor center at Texas Back Institute in Plano. He was instrumental in developing a robotic spine system and holds numerous other patents. In addition to his clinical work, Dr. Lieberman co-founded the Uganda Charitable Spine Surgeon Mission to treat underserved populations in Uganda.

Steven C. Ludwig, MD, is chief of spine surgery at the University of Maryland Medical Center and co-director of the University of Maryland Spine Center. His research has earned him recognition from the Cervical Spine Research Society and the American Orthopaedic Association.

Robert Masson, MD, is founder and president of NeuroSpine Institute and a retired Lieutenant Commander of the United States Naval Reserve. He was the developer of the iMAS surgical principles for Synthes Spine and has treated several professional football and basketball players. In addition to his clinical practice, Dr. Masson is a member of the Society for Minimally Invasive Spine Surgery.

Robert F. McClain, MD, directs the Spine Research Program at Cleveland Clinic and is the former director of the Spine Care Center at the University of California, Davis. He was awarded the North American Traveling Fellowship.

Charles Mick, MD, is an orthopedic surgeon with Pioneer Spine and Sports and currently serves as president of the North American Spine Society.

“The most fulfilling aspect of my career is working with patients, particularly when a patient smiles and says ‘thank you for giving me my life back’,” says Dr. Mick. “As a physician, it reminds us what is most important and why we originally chose medicine as a profession. These days it is very easy to become distracted by the challenges of electronic records, rising costs, threats of liability, insurance authorizations, financial uncertainty and healthcare upheaval. In everything we do, we must remember these moments with our patients.”

William Mitchell, MD, is a neurosurgeon with the New Jersey Neuroscience Institute and on the board of directors for the North American Spine Society. He practices at CoastalSpine and is a member of the American Association of Neurological Surgeons.

Pierce D. Nunley, MD, is the director of the Spine Institute of Louisiana and chairman of the American Board of Spine Surgery. He also serves as an assistant professor of orthopedic surgery at Louisiana State University Health Science Center and is on the board of directors for the American College of Spine Surgery.

Patrick F. O’Leary, MD, is the former chief of spine service for Hospital for Special Surgery in New York City, where he continues to serve as an associate attending spine surgeon. The hospital recently recognized him with a Lifetime Achievement Award and he is a member of several professional organizations.

Stephen J. Parazin, MD, is the chief of spine surgery at New England Baptist Hospital in Boston.

“The most fulfilling aspect of my career has been the ability to help as many people as I have been able to,” says Dr. Parazin. “Having a career now that has spanned over 15 years to come across the patients that I have helped previously or to help their family members is very rewarding. The ability to help and return a wholeness to patients’ lives is a tremendous benefit.”

John Peloa, MD, is a founding partner of the Center for Spine Care and Minimally Invasive Surgery Institute, an ambulatory surgery center. He is a pioneer in minimal access spinal surgery and was instrumental in launching the SEXTANT and among the first surgeons to use the cefolx Interlaminar Technology for motion preservation.

Kenneth Pettine, MD, is co-founder of Rocky Mountain Associates and Loveland (Colo.) Surgery Center.

“I remain most excited the last two and a half years of being involved in two FDA studies involving biologics to treat discogenic low back pain,” says Dr. Pettine. “In addition we have injected over 130 patients with autogenous bone marrow concentrate. I believe biologics will soon change the practice of spine and am excited to be pioneering this advancement.”

Frank Phillips, MD, is the director of the section of minimally invasive spine surgery at Rush University Medical Center and founding member of the Minimally Invasive Spine Institute at Rush. He sits on the board of directors for the International Advocates for Spine Patients.

Gregory Przybyski, MD, is the director of neurosurgery at the New Jersey Neuroscience Institute at the JFK Medical Center in Edison, N.J. He
is also a past president of the North American Spine Society and a professor of neurological surgery at Seton Hall University School of Graduate Medical Education in South Orange, N.J.

Raj Rao, MD, is director of spine surgery in the department of orthopedic surgery at the Medical College of Wisconsin in Milwaukee. He is also on the board of directors for the North American Spine Society.

“The anatomy and functioning of the spine has fascinated me since early in my medical school days,” says Dr. Rao. “Spine pain was often handled through nebulous diagnosis and irrational treatment algorithms. The chance to tackle some of our more difficult clinical challenges continued to fascinate me as I progressed in my residency and led me, 20 years ago, to select spine surgery for my career.”

Ralph S. Rashbaum, MD, is co-founder of Texas Back Institute in Plano and the Texas Back Institute Fellowship Program. He has been vice president of the Texas Pain Society and is a member of the North American Spine Society. He has served in the United States military and has authored several publications related to spine care.

Charles Reitman, MD, is chief of orthopedic surgery at Ben Taub Hospital in Houston and interim director of its trauma fellowship program. He serves on the board of directors for the North American Spine Society and is a member of the American Academy of Orthopaedic Surgeons.

Daniel Resnick, MD, is on the faculty at the University of Wisconsin School of Medicine and Public Health in Madison. He also sits on the board of directors for the North American Spine Society and has a special interest in minimal-incision surgery, spinal tumors and degenerative disorders.

B. Stephens Richards, MD, is the chief medical officer at Texas Scottish Rite Hospital for Children and serves on the board of directors and is past president for the Scoliosis Research Society. He is a past chairman of the Pediatric Orthopaedic Society of North America.

K. Daniel Riew, MD, is the chief of cervical spine surgery at Washington University School of Medicine in St. Louis and is a former president of the Cervical Spine Research Society, where he continues to sit on the board of directors. He founded the Orthopedic and Rehabilitation Cervical Spine Institute at UW.

Rick Sasso, MD, is a founding member and president of Indiana Spine Group, as well as co-medical director of the St. Vincent Spine Center and chief of spine surgery at Indiana University School of Medicine.

“The ability to impact someone’s life in such a positive fashion is the most fulfilling sensation any human can feel,” says Dr. Sasso. “We are fortunate in our work as spine surgeons to be able to profoundly and overwhelmingly improve another’s existence.”

Thomas Schuler, MD, is founder and CEO of Virginia Spine Institute as well as president of the Spinal Research Foundation.

“I didn’t choose to become a spine surgeon through a definite plan,” says Dr. Schuler. “I followed my heart at major decision points in my life and fortunately fell in love with spine surgery...Decision making is paramount, and when paired with excellence in technical ability, patients’ lives are truly improved. The ability to help an individual recover his or her life through knowledge and skills that require decades to acquire is the reward. Improving the lives of people is the most fulfilling aspect of my career.”

David Schwartz, MD, is a spine surgeon with OrthoIndy and director of the OrthoIndy Spine Fellowship. He also serves as an assistant clinical professor at the Indiana University Department of orthopedic surgery. He is the inventor of the Anteres and Leverage Spinal Instrumentation Systems.

James Schwender, MD, is a staff surgeon at Twin Cities Spine Center and former president of the Society for Minimally Invasive Spine Surgery, where he continues to serve on the board of directors. He is a fellow of the Scoliosis Research Society and member of the North American Spine Society.

A. Nick Shamie, MD, is an assistant professor of orthopedic surgery and neurosurgery at UCLA Health and president of the American Board of Spine Surgeons.

“As physicians, we have the privilege and the unique opportunity to connect with our patients and their families in times of need, in times when they feel most vulnerable,” says Dr. Shamie. “We are able to give strength through our expertise [and] cutting edge medicine, but most importantly through personal connections.”

Paul Slosar, MD, is president of SpineCare Medical Group and medical director of its affiliated San Francisco Spine Institute. He has served on the board of directors for the American Board of Spine Surgery and the Spinal Research Foundation.

“I chose spine surgery as I made the most direct and meaningful connection with that subspecialty and those surgeons during my training,” says Dr. Slosar. “At that time, spine surgery mainly consisted of deformity and scoliosis surgery. I had great mentors during my residency at Loyola who encouraged me to do a fellowship. This was a time when our discipline first began to understand and effectively treat the degenerative spine. This has become my primary area of focus both in practice and scientific research.”

Daniel J. Sucato, MD, is the chief of staff at Texas Scottish Rite Hospital for Children and director of the Sarah M. and Charles E. Seay/Martha and Pat Beard Center for Excellence in Spine Research. He is on the board of directors for the Scoliosis Research Society.

William Taylor, MD, is vice-chair of affairs at the University of San Diego Health System and past president of the Society for Minimally Invasive Spine Surgery.

“I chose spine surgery for the various options that were available to me,” says Dr. Taylor. “As a neurosurgeon, not a lot of people wanted to go into spine back when I started it. It seemed to be a really growing field with lots of new things to do that I felt was going to change and become very vibrant over the next decade.”

Eeric Truumees, MD, is an orthopedic spine surgeon at Seton Spine and Scoliosis in Austin, Texas, and serves on the board of directors for the North American Spine Society. He is a former clinical director for the Harold W. Gehring Center for Biomechanical Research and Implant Retrieval at the William Beaumont Hospital in Royal Oak, Mich.

Alexander Vaccaro, MD, is vice chairman of the department of orthopedics and co-director of the spine fellowship program at Thomas Jefferson University and Hospitals.

“The most fulfilling aspect of my career is making someone neurologically better,” says Dr. Vaccaro. “Patients are extremely appreciative if you are able to improve their quality of life. This often is the result of making their extremity pain better or improving strength in their arms and legs. Being able to take someone with a spinal cord injury and bring them back to functional lifestyle is probably the most fulfilling aspect of my job.”

Jeffrey Wang, MD, is the co-director of the UCLA Spine Center and vice chairman of the UCLA/Orthopaedic Hospital department of orthopedic surgery.

“I find spine surgery amazing and changing at a rapid pace,” says Dr. Wang. “The combination of the varied types of surgeries and pathologies that we treat in spinal disorders always make each day an exciting experience.”

William Watters, III, MD, is a spine surgeon with the Bone & Joint Clinic of Houston and professor at the University of Texas Medical Branch in Galveston. He is the board of directors for the North American Spine Society.

“We are using techniques of evidence-based medicine to focus our interest on assessing patient outcomes with traditional and new technologies, allowing us to more carefully and thus more...
cost-effectively apply the correct technologies to a particular patient’s surgical problem,” says Dr. Watters. “By generating this evidence base we can better provide for our patients, increase the quality of patient outcomes and more forcefully make evidence-based arguments with payors for the appropriate surgical intervention in our patients.”

**Robert Watkins III, MD**, is the co-director of the Marina Spine Clinic.

“The most rewarding aspects of my career is being able to combine spinal care, total patient care, spine surgery and the care of the athlete into a program we currently use in our center for which we are able to care for athletes from high school to the top professional ranks, from the minute of their injury to their complete return to their sport or desired level of function,” says Dr. Watkins. “The final important rewarding aspect of seeing the success of younger surgeons and rehab specialists, some that trained with us in the care of spinal injuries in athletes.”

**James Weinstein, DO**, was appointed president and CEO of Dartmouth-Hitchcock Health in Lebanon, N.H., in 2011. He created the hospital’s orthopedics department and previously served as the director of The Dartmouth Institute for Health Policy and Clinical Practice.

**F. Todd Wetzel, MD**, is the vice-chairperson for the department of orthopedics and sports medicine at Temple University School of Medicine. He serves on the board of directors for the North American Spine Society and has published several articles in scientific journals focused on spinal surgery.

**Richard Wohns, MD**, is founder and president of South Sound Neurosurgery and past-president of the Washington State Association of Neurological Surgeons. Dr. Wohns also founded NeoSpine, a venture capital to develop a national network of outpatient spine surgery centers, which has been acquired by Symbion. He performs outpatient spinal surgery and was among the first neurosurgeons in the United States qualified to perform the XLIF procedure.

**Kirkham B. Wood, MD**, is the chief of orthopedic spine surgery at Massachusetts General Hospital and program director for its spine surgery fellowship. His research focuses on instrumentation for spinal deformity and he has worked extensively with European scientists on restorable implants for spinal fixation.

**Hansen A. Yuan, MD**, is a professor of orthopedic and neurological surgery at State University of New York Upstate Medical University and past president of the International Society for the Advancement of Spine Surgery and North American Spine Society.

**James J. Yue, MD**, is the co-director of the Yale Spine Center and director for the center for motion preserving spine surgery and studies.

“‘I have been fortunate to have met and worked with spinal surgeons, scientists, fellows and residents across the globe,” says Dr. Yue. “My relationship and didactic learning with these clinicians and scientists, and subsequent interactive didactic learning and development of spinal surgical procedures/devices which have been used to treat and restore the functional capacity of patients has been the most fulfilling aspect of my career.”

**Jim Zucherman, MD**, is program co-director for the Stanford/St. Mary’s Hospital Combined Spine Surgery Fellowship Program and a founding member of the St. Mary’s Spine Center. He is a partner with the San Francisco Orthopaedic Surgeons and co-developer of the X-Stop procedure.

* *The profiles published here are abbreviated. For the full profiles, visit www.beckersspine.com.*

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Passing the Torch: 6 Characteristics to Look For in Tomorrow’s Spine Surgeon Leaders

By Laura Miller

Leadership in healthcare today is defined by several characteristics, and not every surgeon can be a leader among their peers.

“There are a lot of young surgeons out there who are great surgeons, but they aren’t changing the field,” says Robert S. Bray, MD, founder of DISC Sports & Spine Center in Marina del Rey, Calif. “The leaders are those who are passionate about the field and put time and effort into their contributions. This could be a university surgeon or private practice surgeon, and take the form of a hospital-based structure or developing a program in a Kaiser-like structure. It’s not the pathway, it’s the person. Within each structure, you see the leaders emerge.”

Dr. Bray discusses six characteristics to look for in tomorrow’s spine surgeon leaders.

1. Dedication to developing the practice of spine surgery. Whether the surgeon has an orthopedic spine or neurosurgical background, those who truly dedicate themselves to the practice of treating spinal disorders will raise the top of the field. These are the surgeons who develop new techniques, technologies and research to advance the field.

“No matter what background you come from, you need dedication to the field,” says Dr. Bray. “The fields of neurosurgery and orthopedic spine surgery cross so much now because neurosurgeons are doing stabilizations and orthopedists are doing microsurgery. As we turn to emerging leaders, we are looking for the ability to unify surgeons and their approaches no matter what training program or fellowship they went through.”

Surgeon leaders will likely also need to bring nonsurgical specialists into the mix and spine care continues to rely on pain management and other conservative treatment options in addition to surgery.

“Surgeons have to put time into their practice — not just going to the OR and doing cases,” says Dr. Bray. “I look for surgeons who are dedicated to anything from research to fellowship training to helping understand the business of spine practices.”

2. Ability to develop a multidisciplinary spine practice. Spine surgeon leaders of the future will need to recognize and work with non-surgical as well as surgical specialists from various backgrounds when treating their patients. Surgeons who have built multidisciplinary practices, or corralled diverse physicians to treat their patients, will be sought after in the future.

“There is such a broad spectrum of spine care, so you need to get all of those specialists together,” says Dr. Bray. “A leader must be open minded and dedicated enough that they will put the time into getting all those people into the same room and talking. The North American Spine Society has done that and is transitioning us for that future.”

Pain management physicians, physical medicine specialists, chiropractors, massage therapists and acupuncturists can all be part of the team. Merging all types of specialists into one group can be difficult and will take a great deal of effort.

“I call trying to put together a group of physicians trying to herd cats,” says Dr. Bray. “Now our practice has more than 40 multidisciplinary physicians. When we first started, we just had surgeons, but patients need a broad base thinking group that looks at how to solve problems together.”

3. Teach and learn continuously. Leaders are often chosen from those who are willing to share their expertise. Regardless of age or experience, spine surgeons at the top — or on the rise — should be willing to share their technique with others and learn from their colleagues. This could be through research, surgical training or advocacy efforts.

“It takes a huge amount of time to be involved in politics and develop relationships with others, but it builds the field,” says Dr. Bray. “Research isn’t only for academic institutions anymore; you can participate in FDA studies, clinical outcomes studies and basic science research. Leaders show dedication to passing on their knowledge base.”

It takes time and energy to cultivate these efforts, but spine surgeons who do give back to their colleagues and innovate in the field will become natural leaders.

“You are looking for the person who gives a lot back,” says Dr. Bray. “You are trying to develop spine as a field. It’s not just performing surgery; it’s integrating all of the multidisciplinary specialties. These people have to have passion. They must love what they do and give a lot of time and effort to it.”

4. Open mindedness when leading a group. Whether it’s leading a small subcommittee for the state medical association, running a successful spine practice or sitting at the helm of a national advocacy campaign, spine surgeon leaders must keep an open mind when approaching the group. All surgeons involved are coming from different places and leaders must be mindful of their situations.

“Think about putting a meeting together once per month with 25 to 30 physicians who are different ages, with different interests and at different places in their lives,” says Dr. Bray. “I have grandkids, but some of the others just had their first child. Be really open-minded and look at all the individual needs and family needs. There are so many needs that it becomes difficult to herd them all down one pathway.”

However, even though everyone should be considered, the leader must also be able to charge forward and lead the program.

5. Develop outpatient surgical skills. Spine surgery is trending toward less invasive procedures and many are moving into an outpatient setting. Outpatient spine surgery places less economic burden on the healthcare system and patients are able to recover more quickly. There will still be some patients and procedures that will need inpatient stays, but leaders must be proficient with techniques at the forefront of the field.

“A big challenge for the next generation of leaders will be to develop outpatient minimally invasive surgery,” says Dr. Bray. “We’ll be looking to see where outpatient will go, where it will grow up. Spine surgeons will have to combine with business-minded people to become part of outpatient surgery centers.”

Just being able to perform the surgeries isn’t enough — the leaders will need to have proficient skills and consistently good outcomes.

“You aren’t going to emerge as a good leader without being a good clinician,” says Dr. Bray. “You have to be a good doctor making good decisions about what can be done.”

6. Willingness to go the extra mile. In addition to engaging in research, education and advocacy efforts, tomorrow’s spine surgeon leaders will also be willing to go the extra mile for their patients and partners. Patients should have good outcomes and an even better experience at your office or surgery center.
“If you want to get into a leadership role, there are a lot of extra miles,” says Dr. Bray. “For some people, that’s not what they want. They will be good doctors within their structure, but another person will take over and drive the structure. If you don’t go the extra mile, someone else emerges as the leader.”

However, be careful not to over-extend too much. Going the extra mile is important, but going the extra 10 miles might be overdoing it, with unfortunate consequences. Don’t forget about your family and personal life, which play an important part in your success.

“Find balance,” says Dr. Bray. “Trying to do all of this on top of being a good doctor and surgeon can be really consuming. Balance can take many versions from spending time with family and sports, but you can’t let it all consume you. If you are good, you have to be grounded and balanced. Put energy into the projects you have to stay grounded.”

**Are ACOs Beneficial for Spine Surgeons?**

**Q&A With Dr. Nick Shamie of UCLA**

**By Laura Miller**

A. Nick Shamie, MD, associate professor of spine surgery at UCLA and president of the American College of Spine Surgery, discusses new payment models on the horizon and how spine surgeons will fit into accountable care organizations.

**Q: What alternative payment models are spine surgeons considering today?**

Dr. Nick Shamie: There have been talks about what may happen and the accountable care organization payor model is basically moving toward a single payee where typically the hospital or group that includes a hospital, physicians and clinicians, come together in a care network. This typically is run by hospitals, and the hospitals decide where the distribution of the funds will be.

Aligning with a medical group or a hospital ACO including a medical group could be extremely beneficial as the new structures are forming. This is especially true for busy, competitive markets, such as in big cities where hospitals are purchasing physician practices.

**Q: Should spine surgeons join an ACO?**

**NS:** It comes down to what kind of provider you are — a single provider or group provider. Strength is in numbers — if you have a group that provides care in that community, they will have a much stronger voice than if you are a single practitioner. As importantly, if not more importantly, is the quality of care you provide. ACOs will be interested in getting good ratings from the patient.

This is part of the whole movement — to provide better care for less money. If you have a well-established, high quality and well-regarded practice, you will be in a much better position to negotiate.

**Q: Will this trend lead to more consolidation and fewer independent physicians?**

**NS:** I think it’s uncertain what is going to happen exactly, but payors are aligning themselves with big centers and therefore being a part of these big centers will be a vital part of anyone’s practice. We’ve seen that happen where a big orthopedic group was recently purchased by a hospital, which immediately injects cash flow into your practice, but long term the partnership will allow the hospitals to negotiate with payors and device proceeds between the facilities and faculties, and that medical practice they purchased.

I think upfront negotiations will be very important when this transition happens because both parties have to have an agreement and understanding. We don’t know how this will play out.

**Q: How can spine surgeons prepare for ACOs?**

**NS:** It would be advantageous for both hospitals and spine surgeon groups to have hypothetical situations to basically predict future possibilities and watch each possibility on how the structure will work and what the agreement will be. That would help with future arrangements, however things pan out. Medicare may require hospitals to directly align themselves with the government payors or they may require some division between the medical groups and hospitals.

We have government payors, but also private payors, and what happens to private payors if the negotiation only considers ACOs with government payors? There has to be a clause discussing other payors that will remain as is. There could be opportunities for different arrangements for different payors.

**Q: What kind of quality metrics are most important for spine surgeons to collect?**

**NS:** Before we were collecting metrics like patient volume and complication rate; now we have to go beyond the basics of quality to care and focus more on patient satisfaction, wait time for visits and types of care provided. If you want an MRI done, having it in the same place for the patient is convenient and you’ll get a higher rating. If you don’t have enough providers and patients have to wait a month for a visit, that’s going to be looked down upon and negatively impact the ACO’s reputation.

I think it’s going to be a given that spine surgeons will try to have the best care and fewest complications. It’s going to be a challenge to reach these new metrics because this is a completely new paradigm that we have to work under and many of the terms will be determined as we learn more about how these systems work.

**Q: How will reimbursement be impacted by new payor models?**

**NS:** We are seeing gradual transitions where multiple codes traditionally have been used for spine surgery are getting less frequent. A recent example is posterior lateral fusion, which now includes the interbody. The interbody fusion includes extensive dissection and much more is involved than just the posterolateral fusion, but those codes are bundled now. That’s in the works and been happening gradually. Anterior cervical disectomy and fusion reimbursements have seen the same bundling.

**Q: What are the biggest challenges spine surgeons have with ACOs?**

**NS:** As these organizations are forming, we have to take into account the expanded need for care. Any degeneration condition or disease of an older age patient will become a challenge if we maintain the same resources that we currently have. We have to expand our resources because if the hospitals are over flowing with patients, there will be more patients waiting in line.

On the bright side, we are seeing orthopedics and spine surgery needs expand because baby boomers are getting older and over the next 20 years, we will be busier than we ever have been. That is really going to be an important part of the successful transition to these newer payment models.

With these changes, we have to make sure we are getting more efficient because we have to provide more resources. We’ve seen it in other countries where specialty care is not adequately provided so people are leaving those countries and seeking care elsewhere and we want to make sure that isn’t an issue in this country.
Here are eight important spinal technology advances heading into next year.

1. Artificial discs. Much controversy circles around the future of artificial disc replacements. Lumbar disc replacements have not held up under scrutiny and researchers studying cervical disc replacements are just beginning to gather long term effectiveness data.

“The lumbar disc replacement is dead in the water, but there is a lot we are still excited about with cervical disc replacement,” says Andrew Hecht, MD, co-chief of orthopedic spine surgery at Mount Sinai School of Medicine in New York City. “Now we are seeing some evidence that in its current form, cervical artificial discs aren’t preventing adjacent segment disease as we had hoped. Cervical fusion is such a successful procedure that the key is really going to be whether disc replacement really does reduce the rates of adjacent segment disease.”

At this year’s North American Spine Society annual meeting, studies presented compared cervical disc replacement and fusion procedures and showed minimal, if any, difference in adjacent segment disease. However, there are promising developments on the horizon for artificial discs.

“One of the shortcomings of the United States-approved lumbar discs is they do not incorporate shock absorption while some of the European ones do,” says Donald Corenman, MD, a spine surgeon with The Steadman Clinic in Vail, Colo. “The currently available ball and cup disc replacements are not mechanically connected so there are no significant stresses created in the interface between the vertebral body bone and the implant itself. With a shock absorption type of disc, there is a strong mechanical connection between the two ingrowth endplates. This creates greater mechanical stress between the host bony endplate and the device. Longevity of the implant comes into question. Nonetheless, I think this will finally yield disc implants that are more acceptable for the lumbar spine.”

Regardless of the method, surgeons are looking for ways to preserve motion in the spine and new developments in disc replacements may give patients more normal motion than in the past.

“We continue to get closer to having actual metal and plastic options that really more closely mimic the movements and kinematics of the normal human cervical spine and disc,” says Sheeraz Qureshi, MD, associate professor of spine surgery in the department of orthopedics and chief of trauma in at Mount Sinai School of Medicine in New York City. “We are getting longer term results on disc replacement options that are available, which have had excellent outcomes. We continue to improve the type of motion that is occurring and we are getting closer to the point where we can say we will have these devices to protect against adjacent segment disease.”

2. Minimally invasive surgery for instrumentation and fusion. Minimally invasive techniques are now the standard of care for simpler procedures like decompressions and are gaining traction among instrumentations and fusions. While maverick surgeons have been performing these procedures for several years, more studies now show their effectiveness and the idea of minimally invasive spinal surgery has gone mainstream.

“Now that we have done this for quite some time, we are seeing a lot more papers discussing how effective minimally invasive surgery is compared to mini open techniques,” says Dr. Hecht. “We are trying to figure out where these procedures will fit in and whether the differences are really enduring. For cervical foraminotomy and far lateral discectomies, the minimally invasive techniques are the gold standard; for spinal fusion, the jury is still out on whether it makes a difference.”

For some procedures, such as transformaminal lumbar interbody fusions, the minimally invasive technique might shorten hospital stays by a day, but the patient might not achieve fusion as well as the mini open technique would have.

“We need to have a minimally invasive technique that will allow us to achieve as good of a fusion there,” says Dr. Hecht.

3. Lateral access procedures. Device companies are increasingly developing instrumentation for lateral access techniques. These techniques allow surgeons to access several different areas of the spine through a minimally invasive approach.

“Initially, minimally invasive surgery was just percutaneous pedicle screw placement, but as things evolved we were able to do more TLIFs and fusions, and now we are seeing the increased popularity of direct lateral surgery,” says Dr. Qureshi. “The next thing on the horizon will be the ability to more safely access not only the L4-5 space through a minimally invasive direct lateral approach, but also the L5-S1. Before this area wasn’t considered a space that could be accessed through those approaches, but if we are able to do that it would be a major advancement.”

The lateral approach has also brought forth several new innovations in image guidance.

“We are very excited about the improvements in image guidance technology that allows us to do these less invasive procedures more safely because when you have an idea of where you are and how close you are to directly accomplishing the goals of surgery, you have better outcomes,” says Dr. Qureshi. “We are seeing improved ability to navigate and access levels commonly involved in surgery that weren’t possible even through lateral approaches before. In 2013, we will be introducing some new ways to do that.”

4. Implant and instrumentation materials. Spinal instrumentation is constantly being refined based on the metal material, shape and technique. Every major manufacturer routinely updates their instrumentation and while the application of the instrumentation hasn’t changed much, the metal material has.

“There is a trend, in spinal deformity surgery, to use cobalt chrome for longer constructs. This...
is an evolution from stainless steel and titanium implants," says Purnendu Gupta, MD, medical director of the Chicago Spine Center at Weiss Memorial Hospital. “Now we can use a combination of titanium screw implants with cobalt chrome rods. The advantage is that you have greater fatigue life than with titanium.”

Cobalt chrome also has greater resistance to infection than stainless steel, which is important particularly in long constructs. However, more data should be gathered to really assess these benefits. Another material on the rise is Amedica’s patented Silicon Nitride, which is a heat resistant material that can be manufactured into different forms — either very dense or very porous with a highly polished or texturized surface — to accommodate different implant types.

“Silicon Nitride is certainly one of the most exciting new emerging technologies in the space,” says Grant Skidmore, MD, a neurosurgeon at Neurosurgical Specialists in Norfolk, Va. “Silicon Nitride provides surgeons with another option for spinal implants, as it appears to be superior to both titanium and PEEK in its interaction with bone.”

Two peer reviewed studies have show the benefits of Silicon Nitride, which also allows for intraoperative visualization.

5. Bone morphogenic protein. Medtronic’s Infuse is currently the only FDA-approved bone morphogenic protein product available on the market for spinal fusion, with limited indications. Despite current controversy surrounding its use, many spine surgeons still find the product helpful for complex fusions, and further developments in bone morphogenic protein products could enhance the procedure over the next several years.

“BMP continues to remain useful in spine fusions, particularly in challenging environments where patients have significant comorbidities,” says Dr. Gupta. “Perhaps in the future, there will be more research on the use of combinations of BMP — it’s already being used with bone graft substitutes — but there are other BMPs beyond what is commercially available and they could be more effective in combination. The basic science research on combinations will continue to emerge over time.”

For now, many companies are financially limited in their research and development on bone morphogenic protein material. In the near future, researchers and device companies may take steps to define the appropriate use of BMP material currently on the market.

“I think over the next year, we will see what the best and most appropriate role for BMP is,” says Dr. Hecht. “I don’t think it will go away and it shouldn’t.”

6. Biologic treatment and disc regeneration. Some research is being done now on biologic alternatives to BMP that would promote fusion and potentially enhance disc regeneration in the distant future. These solutions include stem cell research and other types of biologic material.

“We are still looking for biologic treatment for both fusion and disc regeneration, and I don’t think we are any closer to finding a solution,” says Dr. Qureshi. “I don’t think there are great things on the horizon for the upcoming year, but that will be the next space where a lot of research and resources will be devoted.”

While BMP has powerful bone forming and fusion forming abilities, there are some issues with the substance that are causing surgeons to reach for an alternative that is just as effective. In disc regeneration, no material is pervasive yet.

“We are working for the point where we will have these things that are injectable and promote disc regeneration and healing for the patients so they will avoid the need for surgery,” says Dr. Qureshi.

7. Growth tethers. For children with juvenile scoliosis, growing rods have been developed to allow growth and delay spinal fusion procedures. For early onset scoliosis, surgeons can do serial casting with some success as well. However, there is an opportunity to further modulate spinal growth with a device known as a growth tether.

“We are seeing the development of growth modulation in addition to growing rods,” says Dr. Gupta. “Growth tethers are still on the horizon and hopefully will emerge as effective adjuncts to growing rods. Several companies are developing growth tethers which are being used in animal research. At the moment, none are commercially available, but they will probably emerge in the near future.”

For children needing a fusion for treatment of scoliosis, surgeons are also looking at how the length of fusion may impact residual spinal motion. In some cases, surgeons are ending their fusion at L3 instead of L4 for motion preservation. Dr. Gupta is participating in a study being done in collaboration with colleagues at Shriners Hospital which currently includes two year data and will be followed up at five years.

“We see there is a dramatic change in the patients’ motion if we stop a scoliosis fusion at L2 versus L3 or L4,” says Dr. Gupta. “It will be interesting to see the follow-up at five years to know whether the motion is maintained or will change. We’ll know the impact of longer fusions at the five-year mark in the pediatric population.”

8. Image guidance technology. Enhanced imaging technology available with the O-arm is now starting to gain traction among mainstream spine surgeons and could become the standard of care in the near future. An O-arm helps spine surgeons with screw placement and many have found this technology particularly useful during revision surgeries or with patients who have more complex degeneration.

“The O-arm allows for accurate implant placement so we don’t have to worry about screw placement issues,” says Dr. Corenman. “It allows you to perform procedures that you normally might not contemplate because these procedures were too complex in the past. It also substantially reduces the exposure of surgeons and staff to radiation when compared with standard C-arm technology.”

The O-arm has developed into a useful tool for training younger surgeons in their fellowships because the fellows can place screws without viewing the stealth monitor, but the experienced surgeon can watch the monitor to see if the screws are in the right place.

“We’ve had the ability to make three-dimensional guidance in the operating room for some time but it has never been user-friendly,” says Dr. Qureshi. “There were always problems with little movements that threw off the entire navigation in the past. With newer technologies, we overcame that and can navigate very predictably.”

Newer technology can also save operating time. “For the navigational surgery, you just take a one-time three dimensional image and you don’t have to take an X-ray for the rest of the time,” says Dr. Qureshi. “It goes a long way for long term safety. There is also a fatigue factor because surgeons don’t have to wear heavy lead aprons during surgery.”
Spine Surgeon Leaders Focusing on Scoliosis

**Behrooz A. Akbarnia, MD**, is the medical director at the San Diego Center for Spinal Disorders and the fellowship director for the San Diego Spine Fellowship. He also founded Growing Scoliosis Foundation.

**Todd Albert, MD**, is the director-at-large of the Scoliosis Research Society and the chairman of the department of orthopedics at Thomas Jefferson University and Hospitals in Philadelphia. He is the president of Rothman Institute in Philadelphia.

**Howard An, MD**, is a professor of orthopedic surgery and director of the division of spine surgery and spine fellowship program at Rush University Medical Center in Chicago. He completed the traveling fellowship for the Scoliosis Research Society.

**Neel Anand, MD**, is the director of orthopedic surgery at Cedars-Sinai Institute for Spinal Disorders in Los Angeles. He was among the first surgeons to perform a combination of three minimally invasive procedures to correct adult lumbar degenerative scoliosis.

**Vincent Arlet, MD**, is a professor at the University of Virginia School of Medicine in Charlottesville and has a professional interest in treating scoliosis. He is also the creator of the online scoliosis database ScoliSoft.

**Randal R. Betz, MD**, is a past president of the Scoliosis Research Society and an executive board member and founding member for the Setting Scoliosis Straight Foundation. He practices with Shriners Hospital for Children in Philadelphia.

**Oheneba Boachie-Adjei, MD**, is chief of the scoliosis service at Hospital for Special Surgery. He has been president of the Scoliosis Research Society and completed a fellowship at Twin Cities Scoliosis Center and Minnesota Spine Center in Minneapolis.

**Keith H. Bridwell, MD**, is founder of the Center for Advanced Medicine and the Spinal Deformity Fellowship at Washington University School of Medicine. He served as president of the Scoliosis Research Society and co-founded the Spinal Deformity Study Group.

**Jonathan Camp, MD**, established the Children’s Bone & Spine Surgery to serve patients in need of pediatric orthopedic and scoliosis care. He completed a fellowship in pediatric orthopedic and scoliosis surgery at Texas Scottish Rite Hospital in Dallas.

**David H. Clements, MD**, is the director of the scoliosis program at Cooper University Health Care and director of orthopedic spine surgery. He is the treasurer for Setting Scoliosis Straight Foundation.

**Christopher J. DeWald, MD**, is a spine surgeon practicing with Midwest Orthopaedics at Rush. He has served as the chief of the section of spinal surgery/scoliosis at the Hospital of Cook County in Chicago.

**John Dormans, MD**, is the vice president of Scoliosis Research Society and the chief of orthopedic surgery at The Children’s Hospital of Philadelphia. He has research on scoliosis published in numerous book chapters and publications.

**Thomas Errico, MD**, is the director of the Spine & Deformity Center and chief of the spine division at NYU Langone Medical Center. He served as president of the North American Spine Society and International Society for the Advancement of Spine Surgery.

**David Feldman, MD**, is the chief of the division of pediatric orthopedics at New York University’s Langone Medical Center, and he specializes in the care of children with scoliosis. He published studies on thoracic adolescent idiopathic scoliosis fusion.

**Robert Fitch, MD**, is the chief of pediatric orthopedics at Duke Health in Durham, N.C. His clinical interests include pediatric and adult spine and deformity correction and he has published several research articles on the topic.

**Joseph Flynn, Jr., MD**, is the chairman of the department of orthopedics at Orlando Health, and he is a spine surgeon for The Spine & Scoliosis Center. His research interest is in spinal deformity, as well as spinal instrumentation and presentation.

**Matthew Geck, MD**, is the co-chief of Seton Spine and Scoliosis Center and has a professional interest in minimally invasive scoliosis reconstruction. He is also the co-founder and medical director of SpineHope, a charitable organization.

**Steven D. Glassman, MD**, is a spine surgeon with Norton Leatherman Spine Center and professor of orthopedic surgery at the University of Louisville. He is the president-elect of the Scoliosis Research Society and the past vice president.

**Purnendu Gupta, MD**, is medical director at Chicago Spine Center at Weiss and director of the spine center at the University of Chicago. He is a member of the Scoliosis Research Society and conducts scoliosis-related research.

**David Gurd, MD**, is the head of pediatric spinal deformity surgery at the Cleveland Clinic. He is an active researcher for improvements to scoliosis surgery and fracture care. He completed a fellowship at Texas Scottish Rite Hospital for Children in Dallas.

**Richard Hostin, MD**, is the medical director at the Baylor Scoliosis Center in Plano, Texas. He is in the process of expanding the Scoliosis Center’s research efforts to eventually train medical graduate fellows.

**Kamal N. Ibrahim, MD**, is a clinical professor of orthopedics at Loyola University in Chicago and serves
as the president of the Scoliosis Research Society. He has led the AAOS program to educate healthcare providers in Africa about orthopedic care.

Paul Kuflik, MD, is the associate director of the Spine Institute of New York at Beth Israel Medical Center and the former chief of scoliosis service at the Hospital for Joint Diseases. He is a member of the Scoliosis Research Society.

Lawrence Lenke, MD, is the director of the spinal deformity institute and fellowship at Washington University School of Medicine in St. Louis. His research interests include lumbar and thoracic scoliosis, adolescent idiopathic scoliosis and fusion surgery.

Isador Lieberman, MD, is the director of the scoliosis and spine tumor center at the Texas Back Institute in Plano. He is on the medical advisory board for Mazor Robotics, a spine surgery device company who focuses on robotic guidance systems.

Baron Lonner, MD, is the principle investigator for the Scoliosis Outcomes Database Registry at NYU Langone Medical Center Musculoskeletal Research Center. He has also been the director of Scoliosis and Spine Associates since 1999.

John Lonstein, MD, is a surgeon at the Twin Cities Spine Center in Minneapolis. He specializes in pediatric spine and scoliosis deformities and is a part of the Scoliosis Research Foundation.

Rex Marco, MD, is chief of spine surgery and musculoskeletal oncology at University of Texas MD Anderson Cancer Center. He is the co-director of the Spinal Deformity service at Shriners Hospital for Children.

Steve Mardjetko, MD, is an orthopedic surgeon with the Illinois Bone and Joint Institute. He is the chief of pediatric orthopedics at Hope Children's Hospital in Oak Lawn, Ill. He is a spinal deformities and pediatric orthopedic specialist.

Paul McAfee, MD, is the director of the Scoliosis and Spine Center at St. Joseph's Hospital. He participates in the Spine Training Program at Johns Hopkins and Union Memorial Hospitals.

Richard E. McCarthy, MD, is an orthopedic surgeon at Arkansas Children's Hospital and co-founder of the Arkansas Spine Center. He is a past president of the Scoliosis Research Society.

Michael Neuworth, MD, directs the Spine Institute of New York at Beth Israel Medical Center and its fellowship program. He is former chief of scoliosis service at the Hospital for Joint Diseases. He served on the board of the Scoliosis Research Society.

Peter Newton, MD, has been a pediatric orthopedic surgeon for more than 25 years. He is the chairman of orthopedics at Rady Children's Specialists of San Diego and serves as the president and chairman of the Setting Scoliosis Straight Foundation.

Michael F. O'Brien, MD, is the medical director of research at the Baylor Scoliosis Center. He has served as the chairman of the Scoliosis Research Society Global Outreach Committee and completed the Scoliosis Research Society traveling fellowship.

James Ogilvie, MD, is a past president of the Scoliosis Research Society. He is the founder, director and the chief medical officer for Axial Biotech, a company focused on developing genetic tests and treatment for spinal disorders.

Timothy Oswald, MD, is the director of the scoliosis screening program at the Children's Healthcare of Atlanta. He serves on the non-operative management committee and the program committee for the Scoliosis Research Society.

George D. Picetti, III, MD, is the medical director of pediatric spine surgery at Sutter Medical Group and the Children's Center at Sutter Medical Center. He has a professional interest in performing minimally invasive surgical approaches for scoliosis.

David Polly, MD, is the chief of the spine services at the University of Minnesota. He has been the secretary of the Scoliosis Research Society and served on the board of directors for the American Academy of Orthopaedic Surgeons.

B. Stephens Richards, MD, is a past president of the Scoliosis Research Society. He serves as the assistant chief of staff and medical director of inpatient services at Texas Scottish Rite Hospital for Children.

Anthony Rinella, MD, is the founder of the Illinois Spine & Scoliosis Center and the co-founder of SpineHope, a nonprofit that helps children with spine deformities. He completed a fellowship in spine surgery at Washington University in St. Louis.

Vishal Sarwahi, MD, is a pediatric orthopedic spine surgeon who is the chief of scoliosis surgery at Montefiore Medical Center in Bronx, N.Y. His research focuses on surgical treatment of spine deformities of children, adolescents and young adults.

Harry L. Shufflebarger, MD, is the chief of the division of spinal surgery at Miami Children's Hospital. He has authored several publications on spinal deformity and spine degeneration and served as president of the Scoliosis Research Society.

David Siambanes, DO, is St. Joseph's Children's Hospital Scoliosis Center medical director. He was co-chair of the medical advisory team for Children's Spine Foundation and spine section president of the American Osteopathic Academy of Orthopedics.

David Skaggs, MD, is the director of the Scoliosis & Spinal Deformity Program and director of the Children's Orthopedic Center at the Children's Hospital of Los Angeles. He specializes in the treatment of children with spinal deformities.

Paul D. Sponseller, MD, is the department executive vice chair and chief of the division of pediatric orthopedics at Johns Hopkins Children's Center. He serves as treasurer of the Scoliosis Research Society.

Mark Stephen, MD, is the director of the Spine & Scoliosis Center at Stony Brook Medicine. He focuses treatment on pediatric scoliosis, spinal stenosis, spinal fusion, trauma, orthopedic surgery and herniated and degenerative discs.

Rudolph Taddionio, MD, is the chief of orthopedics and a pediatric spine surgeon at Stamford Hospital. He is also the director of scoliosis and spine surgery at New York Medical College and founder of his practice, Scoliosis and Spinal Surgery.

George Thompson, MD, is the division chief of pediatric orthopedics at University Hospital Case Medical Center in Cleveland. He is a past president of the Scoliosis Research Society. He has studied scoliosis deformity extensively.

Michael Vitale, MD, is the chief of pediatric and scoliosis surgery at Columbia Orthopaedics. He is also the director of the Pediatric Orthopaedic Research Group and has authored manuscripts and textbooks on the treatment of scoliosis.

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Laxmaiah Manchikanti, MD, is the chairman of the board and chief executive officer of the American Society of Interventional Pain Physicians and Society of Interventional Pain Management Surgery Centers. He is also a clinical professor of anesthesiology and perioperative medicine at the University of Louisville (Ky), and he practices anesthesiology and pain management at several surgery centers.

ASIPP opposes the final rule from The Centers for Medicare and Medicaid Services to allow Medicare funds to pay for certified registered nurse anesthetists to diagnose and treat chronic pain.

The organization has gathered support of approximately 30 members of Congress, who have written CMS asking them to withdraw the regulation, Dr. Manchikanti says. Two senators and one representative also requested a U.S. Government Accountability Office study to evaluate if nurse anesthetists are qualified to perform these procedures or not.

Dr. Manchikanti weighs in on the CMS ruling and its potential effects on anesthesia and pain management.

Q: What was ASIPP’s reaction to the final rule by CMS to allow CRNAs to practice chronic pain management?

Dr. Laxmaiah Manchikanti: We at ASIPP call it evidence by proclamation with a poor prognosis and certification by politics. We were disappointed, but even more stunned and appalled. This may be the first time in the history of the United States that CMS will take a position when a certain group of providers are not educated, not experienced and not trained to provide medical care. Several members of Congress overwhelmingly oppose the CMS decision; the General Accountability Office is looking into whether nurse anesthetists are qualified to perform interventional pain management procedures. It is the opinion of many that this rule definitely will not hold up because of the impending GAO study.

Q: What were the main considerations for the rule?

LM: The main considerations are political, rather than focusing on the issue of access. As of now, nurse anesthetists perform only 1 percent of interventional pain management techniques. They also consider all interventional pain management techniques to be blind epidural injections. There is overwhelming evidence that blind epidural injections do not work and further, they can cause serious problems. Epidurals are less than 50 percent of interventional pain management. Access is a nonissue as there are qualified, well-trained pain physicians within a 40 to 50 mile radius of every city and county in the United States, with the possible exception of some rural areas, which have longer distances to travel, for any type of care.

CMS has ignored taking into consideration these nurses’ lack of training. They have only used as the basis of their decision that student nurse anesthetists’ curriculum in the future will include chronic pain management. Interventional pain management is a medical discipline with defined interventional techniques that should only be performed by physicians who are well trained and qualified.

Q: What will be the results of this rule for the practice of anesthesia and pain management?

LM: The results of this rule could be devastating. Hospitals are supporting this so that they can have better leverage on well-trained physicians. Some physician groups may be supporting this because of their own special interests as they can start these clinics in their offices and provide everyone with a certain number of epidural injections.

The problem will be that these patients will be started on opioids and will not be followed by these physicians. Further, they will exhaust their number of interventional techniques to be performed. No one will approve any further treatment. Patients will suffer afterwards. The only thing these patients will have are side effects from these inaccurately performed treatments including weight gain, osteoporosis and other issues related to excessive steroid admin-
Patients with acute pain are often easier for primary care physicians and communication break downs between primary care physicians and consulting pain management physicians can lead to inadequate and potentially hazardous patient care. 

Yousuf Sayeed, MD, of the Spine Center at DuPage Medical Group in Naperville, Ill., takes several steps with his patients to ensure open channels of communication with referring physicians.

Communication is important for all specialties, he says, but pain specialists often have patients with unique needs requiring extra care. For example, often pain patients require powerful medications and many have underlying physical problems, such as disc pathology or surgical diseases.

“A unique set of individuals may require higher levels of communication,” he says. “Most primary care physicians don’t witness these types of issues on a daily basis. With a pain management patient, heightened communication between pain management and primary care physicians alike can lead to much better collaborative care.”

The biggest challenge physicians face with pain patients is making sure the physician’s assessment doesn’t reach the primary care physician, a follow-up could be missed or an acute treatment plan may not be properly executed, leading to numerous fatalities. The statistics at present show that 60 percent of the deaths secondary to opioids, deaths which have exceeded the number of motor vehicle injuries, are due to prescribed opioids. It is also interesting to note that the United States uses so much opioids that if we were to give each person in the United States 5 mg of hydrocodone four times a day, it would last 45 days – that is each and every person in the United States.

There are also major risks related to these procedures. If nurses start performing these procedures in the thoracic and cervical spine, they will cause spinal cord injury and nerve injury.

Q: How do you foresee this measure impacting billing for anesthesia?

LM: In the short run, there should not be any change in billing for anesthesia. However, as time passes on nurse anesthetists will be more empowered in conjunction with the hospitals and together they will try to capture higher revenues. This will affect the insurance companies and they will start fighting back and reducing reimbursement for everyone, including anesthesiologists, psychiatrists and everyone else. This is, provided there is any insurance other than Medicare in the future.

Q: Will any further advocacy efforts be made on behalf of your organization to oppose CMS’ decision?

LM: We will continue to oppose this rule. As stated, numerous members of Congress are appalled and disappointed at this rule. They continue to oppose it. This will be discussed when the U.S. Department of Health and Human Services’ funding comes in front of various committees. Further, the GAO study is on its way. The results will illustrate that these nurses do not have the proper training and we hope the GAO will then make an objective decision. The fact is that there is no training for nurse anesthetists to perform interventional pain management techniques. Their education is only one-third of what a physician’s education and training entails. It will be extremely interesting to note if and when CMS says that these nurses are not qualified and yet they continue doing these procedures. This will be taken into notice by various states and they may start reversing their previous opinions of nurse anesthetists performing anesthesia independently. It may also spread to other professions, such as nurse practitioners and physician assistants.

There are two types of consequences: one is unlimited practice with increasing fraud and abuse and the second one is more restrictions on these groups.

Q: What do you think is at the root of this decision?

LM: The final rule is devastating. It is a travesty. The entire issue boils down to the control of medicine. The medical profession is controlled by various organizations which are not coherent and oppose each other. These include Accreditation Council for Graduate Medical Education and American Board of Medical Specialties. The first programs recognized by the ACGME were accredited in 1993. The number of ACGME accredited programs and the number of trainees in accredited programs have grown steadily over the past decade, reaching almost 100 programs that train approximately 300 new pain specialists each year; there was, however a decline to 90 programs since 2006 due to stringent requirements. The ABMS is not controlled by medical groups and established specialty certification.

In contrast, the nursing boards are the same as the nursing society and advocacy organizations, and it is mandatory nurses to have membership. Consequently, no one speaks against the boards because they are the boards. Essentially, 50 percent or more of the nurse anesthetists are categorically opposed to such an expansion. Even then, CMS and some active members of the group are pursuing these aspects. CRNAs would like to do many procedures which are difficult for even physicians to perform safely or comfortably unless they have had extensive training in the procedures. Overall, this is very sad news for the United States, in which will ultimately result in decreased quality of care and increased cost of healthcare. More than likely, this will also cause potential access to care issues and could even result in fatalities.

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5 Tips to Enhance Pain Specialist Communication With Primary Care Physicians

By Heather Linder

Communication break downs between primary care physicians and consulting pain management physicians can lead to inadequate and potentially hazardous patient care.

Yousuf Sayeed, MD, of the Spine Center at DuPage Medical Group in Naperville, Ill., takes several steps with his patients to ensure open channels of communication with referring physicians.

Communication is important for all specialties, he says, but pain specialists often have patients with unique needs requiring extra care. For example, often pain patients require powerful medications and many have underlying physical problems, such as disc pathology or surgical diseases.

“A unique set of individuals may require higher levels of communication,” he says. “Most primary care physicians don’t witness these types of issues on a daily basis. With a pain management patient, heightened communication between pain management and primary care physicians alike can lead to much better collaborative care.”

The biggest challenge physicians face with pain patients is making sure the appropriate treatments are administered to bring the patient relief. If a pain physician’s assessment doesn’t reach the primary care physician, a follow-up could be missed or an acute treatment plan may not be properly executed, Dr. Sayeed says. Communication is vital for properly caring for patients.

Patients with acute pain are often easier for primary care physicians and pain specialists to treat than patients with chronic pain syndromes, Dr. Say-
Many primary care physicians may hesitate to write prescriptions for opioid narcotics because of potential side effects and look to pain specialists for both their experience and advice. It's best when both physicians are open as to the end goal of the patient because any existing concerns or muddled communication can cause further delay in care.

“When managing opioids, there is a huge advantage to communicating,” he says. “If communication is not [properly] utilized, it can lead to over or under utilization.”

Dr. Sayeed weighs in on five challenges and solutions to keeping lines of communication open between pain management and primary care physicians.

1. Increase visibility. Working with primary care physicians begins with establishing a positive working relationship. Many times the two types of physicians won’t naturally come in contact with one another frequently. Try increasing your visibility at the hospital or practice, Dr. Sayeed says. “Visibility communicates that your services are available,” he says. Increasing visibility can even be simple steps, such as eating lunch at the hospital once a week or volunteering for a committee. It also increases face recognition and develops communication channels which did not exist prior.

“It may not be direct communicating,” he says, “but it promotes communication and builds trust.”

2. Talk on the phone. The “gold standard” for communication is physicians calling one another, Dr. Sayeed says. It’s the optimal way to keep both parties informed, but it is often overlooked because phone calls can be time consuming.

Direct communication can also be a form of positive marketing. “When a physician takes time to call the primary care physician, that primary care doctor will remember it,” he says. “This helps build a practice. You will be known as a caring and communicative physician.”

3. Use written requests. Another way for pain management physicians to keep in touch with the primary care physician is by sending written requests. Letters have been used for many years and are reliable and good for documenting the communication.

However many times primary care physicians are too busy to read all of their letters. Requests can slip through the cracks or be left unattended for a period of time.

4. Send records electronically. Electronic communication, such as email, is becoming more HIPAA compliant and is the fastest means of reaching out to another physician.

However, patient security still remains a large deterrent from communicating electronically, Dr. Sayeed says. Many electronic processes are not yet approved for medical use. “We have to be very careful with instant messaging, email and these types of e-media unless it’s through a secure portal,” he says.

5. Work toward a common goal. Pain and primary care physicians should establish a “team plan” and work together to reach a common goal of patient treatment, Dr. Sayeed says. A common goal lets the patient know there is no discrepancy of care and nothing will slip through the cracks.

“Having a common care plan can be reassuring to a patient,” he says. “The majority are very appreciative to have doctors communicating with each other.”

Developing a team plan entails brainstorming with the primary care physician and exchanging ideas and advice. “Primary care doctors tend to have a longstanding relationship with patients,” Dr. Sayeed says. “They can provide information not easily gleaned from a record or chart.”

The AAAHC Institute for Quality Improvement has released new benchmarking data on four common outpatient procedures: cataract surgery, colonoscopy, knee arthroscopy and low back injection for pain management.

The reports include data such as pre-operative techniques, complications, non-routine procedures, anesthesia, wrong-site surgery prevention and patient outcomes. The data also include information about staff and supply costs. The studies were performed from January to June 2012.

Pain Management—Low Back Injection
(25 organizations submitted information on 488 cases)

1. Pre-procedure times ranged from 16 to 102 minutes (median 53 minutes).
2. Discharge time ranged from 9 to 48 minutes (median 25 minutes).
3. Total facility time ranged from 49 to 166 minutes (median 92 minutes).
4. 93 percent of surveyed patients indicated they were able to schedule their procedures within a reasonable period of time.
5. 99 percent said they had an adequate understanding of the procedure.
6. 82 percent reported that they were performing their usual daily activities.
7. 77 percent indicated that their pain had improved.
8. 46 percent had reduced their pain medications.
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8 Thoughts on How President Barack Obama’s Re-Election Impacts Spine Surgery

By Laura Miller

Eight leading spine surgeons discuss how President Barack Obama’s re-election will impact spine surgery and what spine surgeons can expect from the Patient Protection and Affordable Care Act in the future.

Andrew Cordover, MD, Andrews Sports Medicine and Orthopaedic Center, Birmingham, Ala.: The re-election of President Obama will have many effects on the healthcare industry, surgeons and spine care. One of the main concerns I have as a healthcare provider, particularly in the area of spine care, is providing care for an older population under the evolving yet troubled Medicare system. President Obama has defended the program and I hope, as a surgeon, that he can help build up the Medicare program to better serve the aging population in this country.

Another change that will come from President Obama’s re-election includes reforming unresolved issues that affect both patients and surgeons. For patients, this includes better access to quality care, healthcare coverage and affordable prescription medication. For surgeons, one of the main issues is finding a way to provide better care to an aging population at a reduced cost. This includes finding a solution to strenuous approval processes for patient care and reimbursement. A patient should never wait for vital care because it must go through an approval process.

Moving forward, Republicans and Democrats need to work together to create a patient-based system that makes access to care easier for those who need it the most.

Thomas Errico, MD, President, International Advocates for Spine Patients: What’s clear is that the re-election of President Obama ensures the ongoing implementation of the Affordable Care Act (ACA). Some of that is good (elimination of pre-existing condition exclusions, elimination of lifetime benefit caps, inclusion of tens of millions of people into the healthcare system), and some of that is bad (the unchecked power of the Independent Payment Advisory Board, the uncertainty around guaranteed healthcare system, and some of that is bad (the unchecked power of the Independent Payment Advisory Board, the uncertainty around guaranteed benefits in state health exchanges, and declining physician reimbursements).

What’s unclear is how the ACA can simultaneously expand access to care for millions of people while purportedly controlling costs. It seems that to significantly control costs, something has to give. Will they reduce physician reimbursement? No one seems to be in any hurry to scrap the flawed Medicare Sustainable Growth Rate, which means Medicare reimbursement will decline 27 percent next year. Will they cut costs for drugs, devices and hospital care? Those things are clearly on the chopping block.

In the short term, the device tax and the implementation of the Independent Payment Advisory Board will adversely impact investment into innovative technologies, and likely curtail physician reimbursement. Those two elements do not bode well for spine surgeons and their patients. Our organization — International Advocates for Spine Patients — remains vigilant to ensure that implementation of the ACA does not unnecessarily restrict patient access to medically indicated spine surgeries, nor unduly dis-incentivize investment in innovative and life-improving medical technologies.

Brian R. Gantwerker, MD, Spine Surgeon, The Craniospinal Center of Los Angeles: With this election, we as physicians cannot close our eyes and hope the Affordable Care Act will go away. We need to catch up with what we should have been doing since its passage — which is figure out how we can stay viable and continue delivering quality care.

Regardless of whether or not you voted for the President, we have to operate within this new framework. I think three things now need to be done:

1) Create a coalition of spine surgeons and pain specialists;
2) Come up with a plan regarding how we want to remain independent practitioners and NOT hospital employees;
3) Secure our reimbursement security through lobbying and our spine and pain management coalition.

We are antiquated in our dogmatism. It’s time to wake up, create a plan and ACT.

Steven Garfin, MD, International Society for the Advancement of Spine Surgery President: The re-election of President Obama has potentially both positive and negative implications for spine surgeons.

His re-election virtually insures that the Affordable Care Act (ACA) will not be repealed anytime soon, and that means millions more Americans will have insurance and be able to pay for necessary healthcare, including preventive services, and surgical and non-surgical treatment of acute and chronic conditions. Additionally, the ACA promises an environment where administrative costs and hassles of dealing with insurers will be reduced. Finally, surgeons have an opportunity to play a leading role in new delivery systems to improve care and reduce costs, including accountable care organizations and state-based health exchanges.

It is also theoretically more likely that President Obama will protect public investments in medical research and public health, which will ultimately lead to an improved environment for innovation and emerging technologies that can improve patient lives.

On the negative side, the ACA contains provisions that may be beneficial to the overall population while punitively punishing the needs of individual patients. For example: an increased focus on, and massive funding of, comparative effectiveness research that draws large, population-based conclusions may reduce or eliminate a surgeon’s ability to treat an individual patient based on that patient’s specific needs, desires and values.
Another provision of ACA, the Independent Payment Advisory Board has virtually unchecked authority to reduce healthcare costs, and will have as its primary focus physician reimbursement levels, and a reduction in federal spending for pharmaceuticals and medical devices.

Finally, both government and commercial payors are beginning to exert downward pressure on utilization of high-cost services (like spinal surgery), coupled with a reduction in reimbursement rates for physicians’ services. Public and private payors, spurred by provisions in the ACA, have increased their reliance on so-called “evidence-based medicine.” In theory, this makes sense; of course physicians should base their clinical decisions on all available evidence. The challenge in spine surgery is what constitutes evidence; while payors insist that the best evidence only comes from randomized controlled trials, spine surgeons understand that RCTs are oftentimes impossible to conduct in surgical scenarios. This results in a far greater scrutiny of spine procedures once considered the standard of care, and forces surgeons to continually justify the care decisions they make.

We remain hopeful that the implementation of the ACA will not adversely impact our patients’ access to medically appropriate care.

**Stephen Hochschuler, MD, Founder, Texas Back Institute, Plano:**

The re-election of President Obama means ObamaCare will remain in place. Unfortunately there is so much within this 2,700 page document that only time will tell what impact this will have. I personally have great concern for patients and physicians. Neither, for various reasons, had any significant input to this healthcare legislation.

The AMA, as usual was asleep at the wheel. Both patients and physicians, I believe, will experience new regulations which will restrict choice. More likely than not, bureaucrats will make regulatory decisions without the knowledge or input of treating physicians.

Through the years Texas Back Institute has trained more than 100 fellows, many of whom still have significant debt. Although I personally thoroughly enjoy the practice of spine surgery my concern for the Millennium surgeon is what’s mentioned above. There will be many more challenges to face. Hospitals will continue to purchase physician groups. Accountable care organizations will initially try to play a major role. I believe insurance companies, hospital companies, plaintiff malpractice attorneys, and drug and implant companies will initially make more money. Physicians, on the other hand, will work longer hours with increased documentation, increased overhead costs and less take home pay. I also believe that as Medicare and Medicaid grow, physicians will try to limit access but the government will require physicians to receive a license without any other requirements.

What alternatives might help adjust this scenario? More surgery will be done on an outpatient basis. With this in mind, physicians would do well to supplement their income by ownership in surgery centers. In addition another physician-owned model which not only helps control implant costs by removing the middleman, similar to iTunes, Amazon and Netflix but also contracts for “bundled payments” and “episodes of care” should be considered. Eventually this could become a physician-owned insurance company.

Perhaps my last consideration, especially in those states that have NOT had Nurse Practitioners, will be all of us that have significant debt that can no longer pay for coverage. What alternatives are available to them to be able to go forward with their current practice?

How this will play out in the long run is yet to be determined.

**Charles Mick, MD, North American Spine Society President:**

It is time for all stakeholders in healthcare to look beyond self interests and to work together and implement the Democratic experiment in healthcare reform. Nobody knows the end result, but all of us know that healthcare reform is needed. We need to improve care coordination and quality, and we need to reduce costs. The Democrats have won, and we have been given a message that the public wants to move forward with their plan. Some aspects of the ACA are superb. For example, giving insurance to everybody, not being able to take insurance away if you get sick and being able to move from job to job and take your insurance with you. There are other aspects that will need to be modified and improved, for example the Independent Payment Advisory Board.

**A. Nick Shamie, MD, American College of Spine Surgery President:**

It’s very difficult to predict how any healthcare change would impact spine surgeons. One thing is for certain: The healthcare system will change in this country. We have a growing population and an increased demand for healthcare in this country. The costs have continued to escalate year after year and we need to reign in the costs of healthcare especially in our current economic environment. As physicians, we should all expect decreased pay from government and private payors per each patient care delivered. Specialty and elective care will not be reimbursed as well as it is today. Patients will have to pay out of pocket for elective care (much of spine surgery falls under this category). I believe all of this will translate into an increase in efficacious outpatient minimally invasive procedures with lower per-procedure costs that patients can pay for out of pocket.

**Jeffrey Wang, MD, UCLA Spine Center:**

Although the election process will definitely influence the future of healthcare and certainly spine surgeons have been very interested in the outcome, in reality, there are changes that have been set in place for some time that would likely have been implemented, regardless of the election results. Placing more demands on the surgeons and certain requirements in the near future would likely have been mandated. I think the fact that President Obama was re-elected means that the process may be more transparent in the sense that many surgeons were preparing for the changes that he set in place, and now we know that he will likely push these forward.

However, healthcare is changing and will continue to change, regardless of the outcome, and we need to make sure that we understand these changes, prepare for these changes and try to anticipate the changes that will likely come in the future. Clearly there is a need for more efficient spending of healthcare dollars and a requirement to show evidence to support our treatments. And, improving patient care and outcomes will be a top priority.
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