A PREVIEW OF THE 2014 CNS ANNUAL MEETING

A QUESTION OF BALANCE

EXPERIENCE NEW TECHNOLOGIES IN ACTION: HANDS-ON LEARNING IN THE EXHIBIT HALL
Join us in Boston! This issue of the CNSq is dedicated to our Annual Meeting. A Preview of the 2014 CNS Annual Meeting is detailed by Elad I. Levy, Steven N. Kalkanis and Ashwini D. Sharan. The Annual Meeting provides an opportunity for members to become more involved with the CNS, and therefore, we have provided several committee reports. Michael Y. Wang discusses, reviews and highlights the Membership Committee, the Education Committee by Zoher Ghogawala, the Publications Committee by James S. Harrop and the Fellowship Committee by Aviva Aboisch. The Annual Meeting also allows the opportunity to stay up-to-date on proceedings in Washington, D.C., and Katie O. Orrico and Catherine J. Hill review the Open Payments News: Registration and Data Submission in Process, Plus New and Updated Resources.

The CNS is dedicated to education and there are numerous education initiatives present during the Annual Meeting. As the CNS leads neurosurgical simulation, Karl E. Balsara, George M. Ghobrial, Ashwini D. Sharan and James S. Harrop outline how the CNS is evolving its annual Simulation Course to a local residency centric learning modality in the article, Internet-Based Neurosurgical Simulation and Education: The Next Step. The article, Experience New Technologies in Action: Hands-On Learning in the Exhibit Hall by Michele L. Lengerman details experiences attendees will have in the Exhibit Hall at this year’s Annual Meeting.

In the Featured Articles section, Andrew E. Wakefield explains how NERVES (the Neurosurgery Executive’s Resource Value and Education Society) can be used as an asset for neurosurgeons. George M. Ghobrial and James S. Harrop discuss Hirayama Disease (Monomelic Amyotrophy): An Underreported Lower Motor Neuron Disease in the North American Adolescent Spine Population. Sherry Taylor, Gregory H. Smith, Wayel Kaakaji, John McGregor, Krystal Tomei, Brad Zacharia, Jack Dunn and Charles Rosen detail the importance of teamwork and communication in Primum Non Nocere – Surgical Checklists. A review of the Annual Neurosurgery Charity Softball Tournament is provided by Ricardo J. Komotar.

In his President’s Message, Daniel K. Resnick provides his thoughts on humanitarian aid with the article, Balancing on a Razor’s Edge — Humanitarian at What Cost? that ties in with our Perspectives Section, where Jean F. Soustiel and Samuel Tobias provide a response to that article entitled, Military Response to Crossing Over: When Yesterday’s Enemy Becomes Today’s Patient. Chris J. Neal and Michael K. Rosner provide a response to that article entitled, Military Response to Crossing Over: When Yesterday’s Enemy Becomes Today’s Patient. Mark E. Linskey details State and Regional Advocacy Leads in Priority Among Numerous Advancing New CNS Initiatives.

I have been fortunate to be involved with the initiation of the Congress Quarterly through its transformation from the Neurosurgery News. CNS Past-President, Ali R. Rezai, was the first editor and developer of the CNSq. Jamie S. Ullman and I then served as Co-Editors, and finally, for the last several years, I have been the Editor. I wanted to thank all of the individuals who have helped me during this time, particularly the CNS Staff. In addition, I wish to congratulate Gerry Grant on his new role as Chairman of the CNS Publishing Committee and CNSq Editor.
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he phrase “it’s complicated” is used so frequently to describe relationships in the Middle East that it has almost become a punchline. In this issue of Congress Quarterly, physicians in northern Israel describe their experience in treating refugees injured in the Syrian civil war. This may be the first account of the experience written from the perspective of the caregivers — I searched all of the usual sources and could find no other account. In any case, as a matter of background, the Geneva Convention as well as United States Military Doctrine clearly state that medical decisions should be based on medical priority without regard for nationality in the care of civilians and combatants. The YouTube video of Stephen Tschiderer — a U.S. Army medic stationed in Baghdad, who survived being shot in the chest by a sniper and subsequently treated the would-be assassin for wounds incurred during the ensuing firefight — has been viewed by millions, and dramatically illustrates the principles outlined in the doctrine being operationalized with extraordinary compassion and professionalism.

There is no way to conceal an Israeli hospital behind a false identity, and no way to hide the injuries suffered by civilians and combatants alike in the Syrian conflict. Those who seek care in Israel expose themselves to significant risk. Ironically, the risk is more related to their own government than their traditional enemies. Treatment of these refugees is also risky from Israel’s perspective: are they innocent civilians, or are they foreign insurgents? There are no reliable methods to accurately identify the history or intentions of an individual in need of medical attention. Furthermore, does providing such aid exacerbate the danger faced by friends and family on the other side of the border who may or may not have assisted in the transport of the injured? To quote Mencken, “For every complex problem, there is a solution that is simple, neat, and wrong.” To ignore human suffering is wrong. To risk exacerbation of the suffering is wrong. Achieving a balance that allows for the provision of humanitarian aid without unnecessarily provoking reprisal and without supporting destabilization of the region is a feat which requires tremendous courage, tact and perspective. It’s complicated.
New England in the fall, an impressive Boston Harbor front, combined with innovative scientific sessions, thought-provoking leaders and artists and late-breaking science all while earning CME credits — can it get any better than this? Join us for the 64th Congress of Neurological Surgeons Annual Meeting in Boston, October 18-22, for the preeminent neurosurgical event of the year. This year’s theme is A Question of Balance. Neurosurgeons deal with this predicament on a daily basis — whether balancing cost and quality or debating aggressive versus conservative clinical approaches or even balancing personal values — it’s out there, and we’re dealing with it. The CNS Annual Meeting will look at balance from all sides. The meeting offers something for everyone, from simulation-based training for young neurosurgeons, sessions for advanced practice providers, point-counterpoint controversy sessions on the most hotly debated practice topics, to networking with the best-in-class global neurosurgical leaders.

International Partner
This year, our esteemed international partner is the Israel Neurosurgical Society (INS). Their influence and participation will be evident throughout the meeting as leaders of the INS will be moderating our Choice Abstracts Session; presenting on Neurotrauma in the Battlefield during the Neurotrauma and Critical Care Section Session, and Zvi Harry Rappaport...
**Symposia and Practical Courses**

Kicking off the Annual Meeting are two exciting Symposia and your choice of 30 Practical Courses. We respect your individuality and want to give you the opportunity to tailor the meeting to your own preferences. Saturday’s Symposium is Cutting-Edge and Future Technology in Ischemic and Hemorrhagic Stroke, which addresses the latest information about EC-IC bypass, medical and interventional therapies and optimal treatments of intracranial aneurysms, as well as discussing the best methods for patient selection and advanced imaging for acute stroke intervention. Sunday’s Symposium will guide you through Neurovation, the future of cerebrovascular/endovascular, spine and brain tumor neurosurgery. Hear directly from industry experts who are driving these technologies. Practical Courses span the gamut from grant-writing to endoscopic procedures, hands-on cadaver courses, board review 3-D courses and what to expect now that you’re a neurosurgeon, just to mention a few.

**General Scientific Sessions**

The 2014 CNS Annual Meeting General Scientific Sessions premier Sunday afternoon, focusing on concussions, sports injuries and return to play considerations. General Scientific Session I will be presided by CNS President-Elect, Nathan R. Selden, MD, PhD.

An exceptional lineup of speakers throughout our General Scientific Sessions include our 2014 Honored Guest, Edward C. Benzel, MD, Chairman of the Department of Neurosurgery at Cleveland Clinic and Professor of Surgery at the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University. Dr. Benzel’s current research interests are focused on spine biomechanics and clinical research, as well as sports-related concussion research. The latter has centered on strategies to reduce risk and increase protection for athletes involved in contact sports. Other featured speakers include this year’s Walter E. Dandy Orator, world-renowned brain scientist and spinal cord injury researcher, Lars Olson, PhD. He has held his position as Professor of Neurobiology at Karolinska Institute since 1986, has served for 11 years as department chairman, and is a member of the Karolinska Nobel Assembly and the board of the Swedish Brain Foundation. Phillip Glass, esteemed musical composer, is this year’s Michael L.J. Apuzzo Lecturer on Creativity and Innovation. Glass is a graduate of the University of Chicago and the Juilliard School, and is considered one of the most influential music-makers of the late 20th century. His repertoire includes music for opera, dance, theater, chamber ensemble, orchestra and film. His scores have received Golden Globe and several Academy Award nominations. Also joining our lineup is Cam Neely, President of the Boston Bruins and the Cam Neely Foundation for Cancer Care. Michael D. Ensley, PhD, CEO, of the Executive Assessment
Institute has created the ExecuSmart Suite of assessment tools, and has dedicated himself to applying the “best science” to the process of talent management, executive coaching and executive assessment. Eric Olson, retired Navy Seal Admiral and Special Ops leader of the team who captured Osama bin Laden, will share his thoughts on leadership and decision-making.

General Scientific Sessions on Monday, Tuesday and Wednesday will address a variety of clinical topics, advances in neurosurgery and health care economics and neurosurgery in the era of the Affordable Care Act. Be sure to hear CNS President Daniel K. Resnick, MD, deliver his address at the General Scientific Session on Monday morning.

**Luncheon and Dinner Seminars**
Twenty-four luncheon seminars provide attendees with the opportunity to lunch and learn as they select the topics most interesting to them. Six dinner seminars offer attendees a wide range of topics and controversial debates while enjoying their meals at some of the most popular award-winning Bostonian establishments. Join your friends and colleagues for stimulating conversation and wonderful culinary delights.

**What’s New?**
This year, we are bringing you Live Surgery daily via Telemedicine Technology in the Exhibit Hall. Presentations will include an Expanded Endonasal Endoscopy, a Sylvain Fissure Dissection and a Fluoroscopic Lateral Approach to the Spine. There will also be daily Controversy Sessions with a new point-counterpoint format with neurosurgical experts debating critical issues facing our profession. New Hot Topics will address balancing cost and quality in the age of the Affordable Care Act, physician payment, personalized medicine and a variety of clinical topics.

**CNS Foundation Silent Auction**
The CNS Foundation, Inc. will sponsor its first ever silent auction. In the Exhibit Hall Monday through Wednesday, there will be an opportunity to bid on memorabilia, including signed items from your favorite athletes, musicians and entertainers. There will be new items up for bid each day, so please visit and pick up some great mementos and support the CNS Foundation, Inc.

The CNS Foundation, Inc. supports critical initiatives aimed at improving the quality and outcomes of neurosurgical education and care worldwide, and preserving access to quality care.

The CNS Foundation, Inc. supports the creation and dissemination of neurosurgical practice guidelines, as well as the promotion of domestic and international educational programs that enhance quality neurosurgical care globally.

**Original Science**
We are pleased to announce that this past spring, we reached 1,350 abstract submissions — the highest number of submitted abstracts to date! And for the first time, we have expanded the opportunity to present groundbreaking original science by opening a new category of Late Breaking Science. From July 1 to September 2, we will accept abstracts that were not far enough along in their research to be submitted in the spring.

**Register Today**
What are you waiting for? Register today, if you haven’t already. The advance registration deadline is September 18, 2014. You don’t want to miss this chance to attend what we anticipate to be the largest CNS Annual Meeting yet! Bring the family with you to Boston and take advantage of the many historical and cultural attractions. Have fun, learn, earn CME, network and enjoy yourself – and remember – it’s a question of balance! ▶
The 2014 CNS Annual Meeting Honored Guest is Edward C. Benzel, MD. He is known internationally in neurosurgery as a leader, educator, mentor and innovator. Presently, he serves as the Chairman of the Department of Neurosurgery at Cleveland Clinic and holds a faculty appointment, Professor of Surgery, at the Cleveland Clinic Lerner College of Medicine.

In 1971, Dr. Benzel graduated from Washington State University with a degree in chemical engineering and then proceeded to the Medical College of Wisconsin, where he obtained a Medical Degree. At the Medical College of Wisconsin, he distinguished himself amongst his colleagues when he was presented the Millman Award, which best exemplified the characteristics of an ideal physician. He continued his education at the Medical College of Wisconsin with an internship and subsequent residency in
neurological surgery under the guidance of Sanford Larsen, MD. Dr. Benzel then became a fellow in spine surgery and spinal cord injury at the VA Medical Center in Albuquerque, New Mexico.

His major clinical interests embrace numerous aspects of neurosurgery care. Specific focuses are on spinal disorders including cervical spondylosis, syringomyelia, complex spine instrumentation and spine tumors. Clinical research encompasses issues as hydrocephalus, cerebrovascular disorders, cranial trauma, critical care, brain death, microelectromechanical systems (MEMS) and of course, spinal disorders. From a research perspective, he is presently concentrating further on spine biomechanics and related clinical research, as well as how biomechanics impacts sports-related concussion. The latter has centered on strategies to reduce risk and increase protection for athletes involved in contact sports.

Dr. Benzel has been actively involved in academic neurosurgery being a leader in the Congress of Neurological Surgeons (CNS) and American Association of Neurological Surgery (AANS). Further, he has developed collaboration and relationships with numerous other physician groups through additional organized societies. These include the North American Spine Society (NASS), World Spinal Column Society and Cervical Spine Research Society (CSRS). Dr. Benzel is one of the founding members of the Lumbar Spine Research Society, formed in 2007.

His continual rigorous review of clinical and research content for several professional neurosurgical and spine publications contributes significantly to the body of literature. He was Co-Chairman of the Editorial Review Board of the Journal of Neurosurgery from 2003 to 2004, and is currently Chairman of the Review Board for the Journal of Neurosurgery: Spine. He has served as a reviewer for Neurosurgery®, Spine and The Spine Journal, and is an ad hoc reviewer for several other journals.

Dr. Benzel has authored ten textbooks, edited 28 texts and contributed to over 370 book chapters. His seminal texts, Biomechanics of Spine Stabilization (1st, 2nd and 3rd Editions) and Spine Surgery: Techniques, Complications, Avoidance and Management (1st, 2nd and 3rd Editions) are the highlights of his publication endeavors.

Dr. Benzel holds ten patents and has participated in many medical advances. He is perhaps best known as an educator. He initiated and directed the Neurosurgery Residency Training Program and the Spine Fellowship Programs at the University of New Mexico, and has been instrumental in the development and success of these programs at the Cleveland Clinic. His innovations in neurosurgery resident education have won accolades and numerous awards. In February 2011, Dr. Benzel was chosen to receive the Paul C. Bucy Award for his exemplary efforts offering educational opportunities to his fellow neurosurgeons. Most recently, in 2013, Dr. Benzel was deeply honored by the acknowledgement for his “outstanding contribution to medical science worldwide” at the 13th Congress of Spine Surgery in Sao Paolo, Brazil.

Dr. Benzel is a leader and innovator in the neurosurgery community. The CNS is honored to have him join us in Boston and share his expertise and knowledge in education and spine care.
Since the inception of surgical training, the education of surgeons has been passed down directly from master to trainee across an operative field. However, there comes a point in that course of education that the instruments must be handed over. The attending surgeon hopes that the trainee has read, studied and observed enough to be able to safely and competently execute the necessary surgical maneuvers. Yet as anyone who has ever tried to learn to swing a golf club can attest, reading, studying and observing cannot confer mastery on the first swing. But while a poorly taken golf swing might be no more than embarrassing, the danger to the patient in the hands of the learning surgeon is significantly higher.

Given these circumstances, the value of a simulated surgical experience that provides a trainee the opportunity to practice the physical maneuvers of surgery without risking harm to the patient is obvious. However, the challenge of incorporating such an experience into surgical training has always been the degree to which the operative circumstances could be mimicked. Spine surgery, with its particularly complex structure and sensitivity of the neural elements, has been especially difficult to simulate with any meaningful accuracy. Due to recent advances in high resolution scanning, three dimensional printing and rapid prototyping, a new generation of simulators has been developed. Drs. James Harrop and Ashwini Sharan, working together with Stryker Spine (Kalamazoo, Michigan) and its subsidiary, Phacon Corporation (Leipzig, Germany), created a simulator for the posterior cervical spine which not only replicated the three dimensional form, but also preserved its texture and structural relationships (Figure 1).

Cortical and cancellous bone formations were individually replicated, and within the spinal canal, a pressure-sensitive spinal cord analog that was able to electrically detect and record impact was placed (Figure 2).

This simulator was first deployed at the 2012 meeting of the Congress of Neurological Surgeons with participants taking a focused pre-test followed by a didactic presentation, hands-on training with the simulator, and then a post test. Results were based on both the pre- and post-test scores, as well as an objective structured assessment of technical skills (OSATS) score based on a 1-5 rating of five individual criteria. Seventy-eight percent of participants demonstrated improvement in their written test scores over the course of the individual session, while all participants improved their technical scores (median nine points), validating the model as a teaching experience.

Now, neurosurgical residents at Thomas Jefferson Hospital are pioneering the next step in this educational paradigm, incorporating this and other simulation labs longitudinally into their training process. Each of the residents across post-graduate years 1 to 7 completed both the didactic and technical components of the posterior cervical decompression simulator in addition to a dural repair simulator: the goal of this effort being to correlate improvement in simulator scores with increased technical proficiency both across the program’s classes as a whole and as a baseline measure to track individual improvement. This course also incorporated the didactic and technical components of all CNS simulation courses. Using the CNS Portal, an Internet-based neurosurgical education platform, allowed the residents the ability to take the pre-test as well as the didactic component before arriving for the technical portion. Thus, when they arrived...
for the course, more time was dedicated to hands-on teaching and technical skills.

Reaction to the simulator lab was favorable among the resident participants. While the more senior residents took to the challenge competitively, most junior residents raved about their first hands-on exposure to a technical step in a surgery which they had never before performed. “I’ll never make that mistake again” said one junior resident who was too aggressive in his drilling while others carefully absorbed individual technical details as minute as how to hold the instruments or efficiently throw a dural suture.

Further developments in the technology will allow for video recording of participant performance, making inter-observer validation of technical scores possible. With a standardized, validated method of objective structured assessment in place, residents can eventually practice techniques with these simulators individually, or even video-record their work for scoring. Ultimately, one can imagine “a future where you’ll have to demonstrate objective technical proficiency on a simulator before we allow you to move on to the real thing.”

**References**
Experience New Technologies in Action: Hands-On Learning in the Exhibit Hall

The CNS Annual Meeting presents a number of invaluable networking opportunities and clinical breakthroughs that could change the way you practice neurosurgery. As you begin to coordinate your schedule for Boston, we encourage you to make sure you have blocked enough time to visit the exhibit hall and get your hands on the latest devices and technological advances in neurosurgery.

The CNS Annual Meeting Exhibit Hall makes it easy to stay current in your field by finding new technology and comparing all relevant products and services in one convenient place. This year, we are offering a number of sessions and forums within the hall to enhance the knowledge you’ve gained from the daily plenary sessions by allowing you to learn more about the latest technological advances from key opinion leaders and product development experts, as well as to experience those technologies firsthand, and learn how they will benefit your practice or institution. Be sure to add these sessions and more to your itinerary for Boston:

Innovations Showcase
Stop by this new destination in the Exhibit Hall Monday through Wednesday to learn about the latest technological innovations being displayed in Boston. The CNS’ Technology & Innovations Committee has reviewed the new products available in the hall, and selected those most likely to impact your practice. The showcase allows you to investigate these concepts and speak one-on-one with representatives from each company about their new technologies.

Live Surgery
Given the popularity of last year’s Telemedicine, the Scientific Program Committee is pleased to present three live surgery broadcasts in the Exhibit Hall this year. Join your colleagues daily after the morning general session to see subspecialty experts live in the operating room via telemedicine presentation. Monday’s presentation from UPMC will feature an Expanded Endonasal Endoscopy performed by Paul A. Gardner. Tuesday’s presentation from the Barrow Institute will feature a Sylvian Fissure Dissection by Robert E. Spetzler, and our Wednesday presentation from the Lahey Hospital & Medical Center will feature a Fluoroscopic Lateral Approach to the Spine by Robert G. Whitmore.

Sponsored Lunches in the Hall
Join your colleagues Monday through Wednesday in the exhibit hall for industry-hosted lunch symposia on topics from Spinal Cord Stimulation to Adaptive Hybrid Surgery. Check the Annual Meeting Guide mobile app in early fall for more details on available sessions.

Demonstration Theater and In-Booth Demonstrations
Got a few minutes to spare? Swing by the Demonstration Theater stage to check out these short product demonstrations during morning and afternoon beverage breaks. These 10-minute presentations and demonstrations highlight neurosurgical products and services available in the exhibit hall. Of course, the best way to learn about new products is to get your hands on them directly. Visit select exhibitors in their booth for an in-booth demonstration of their latest products and then stick around to get some one-on-one time with the equipment and learn whether it is right for your practice. Demo Theater presentations and in-booth demonstrations and times are listed in the Annual Meeting Guide and via signage throughout the exhibit hall.

Other Exhibit Hall Highlights:

CNS Foundation, Inc. Silent Auction
Help the CNS Foundation meet its mission while scoring the perfect gift for that special someone who has everything. The CNS Foundation, Inc. Silent Auction will offer up a host of exclusive autographed memorabilia daily in the exhibit hall — from jerseys, helmets and hockey pucks to autographed guitars, photos and album covers. Proceeds from the auction will support the CNS Foundation, Inc. in fulfilling its mission. New auctions take place daily in the exhibit hall.

CNS Member Services and Neurosurgery®
Stop by and visit the CNS Staff and volunteers or test drive Neurosurgery Online and other journal resources at the iPad Kiosks.

Digital Posters
Browse hundreds of abstracts in our Digital Poster Center, available during all exhibit hall hours. Digital Posters can be searched by author, topic or keyword.

Industry support funds many aspects of the meeting and helps keep your attendance costs down. The CNS values our corporate partners and the contributions they make to support the meeting, and we believe that there are valuable learning opportunities for our members in the exhibit hall. Please help us support our exhibitors by visiting the Exhibit Hall while in Boston.
Neurosurgery Executives’ Resource Value and Education Society (NERVES) is very appreciative to the Congress of Neurological Surgeons for giving us this opportunity to explain a little about who makes up our organization and what we are about. NERVES is an organization composed of 300 neurosurgery administrators and practice managers from across the United States. Our members are managers of various practice models from academics to private practices, and from hospital-employed to multispecialty groups. Our members help manage practices as small as one neurosurgeon to groups of more than 30 neurosurgeons. Many of the groups employ other specialties such as pain management, and have ancillary services such as an ambulatory surgery center or a free-standing imaging center to support the care of their patients and add supplementary revenue and value to their practices.

NERVES was established in 2002 under the recommendation and guidance of the Council of State Neurosurgical Societies. The organization was created for the purpose of supporting organized neurosurgery by providing resources for managers and administrators that did not previously exist, or that was provided by associations trying to serve all medical specialties. Mark Linskey, MD and Greg Przybylski, MD were the two neurosurgeons who helped shepherd NERVES in its early years, and assisted in the drafting of the organization’s first set of bylaws.

NERVES holds an annual meeting the weekend prior to the American Association of Neurological Surgeons meeting in the spring, and continues the network and dialogue throughout the year with an active list-serve where members ask questions and exchange information.

One of NERVES’s greatest contributions to organized neurosurgery, aside from the pooling of knowledge, is the annual Socio-Economic Survey which is in its ninth year of publication. The survey touches on every aspect of the business of neurosurgery from compensation to call pay. The NERVES survey has the distinction of having the largest number of neurosurgeons represented of any survey, currently compiled with 415 in the most recent publication. The data gathered over the past nine years allows for trending and analysis that is not only interesting, but helpful in answering questions and aiding future planning. From the most recent survey, trends show neurosurgeons’ total median compensation increased $93,000 over the past five years, however work Relative Value Units (wRVUs) are trending down. Over the same five year time period, physician assistants’ total compensation increased by $10,000.

Call pay is reported by daily rates across a statistical array for several categories including: Trauma vs. ED, Level I & Level 2, Metropolitan area and geographic region. The daily stipend for Level I trauma call has increased by 45% over the last five years, while non-trauma call compensation has increased by 66% over that same time period. This data has proven important for many practices in negotiating call coverage agreements in markets across the country.

I hope the above information gives you some insight into NERVES’s mission and contributions to neurosurgery. I would also like to take this opportunity to ask you to encourage your manager or administrator to join NERVES and to participate in the NERVES annual survey. The more neurosurgeons represented, the more relevant our data. Participants complete the survey in the fall, it is compiled by a third-party accounting firm, and then results are delivered in early spring. Participants receive complimentary copies of the survey, and they are available for purchase for non-participants. For more information on NERVES, please visit our website at www.NERVESadmin.com.
Hirayama Disease (Monomelic Amyotrophy): An Underreported Lower Motor Neuron Disease in the North American Adolescent Population

Monomelic amyotrophy, also known as Hirayama disease, is a lower motor neuron disease diagnosed overwhelmingly in adolescent males (>10:1 M:F, aged 15-25 years). The first cases were reported in 1959 in the Japanese population, and more recently, pediatric cases of Hirayama Disease have been found in North America.

Affected patients typically have complaints of unilateral weakness in a single extremity of insidious onset occurring with equal frequency in the upper and lower extremities, often without pain or sensory changes. Upon clinical examination, marked weakness is isolated to one or two myotomes with gross unilateral muscle atrophy in the absence of any signs of upper motor neuron disease. In brachial monomelic motor atrophy (BMMA), asymmetric cervical MRI atrophy is evident in conjunction with symptoms in greater than 90% of cases, leading to a spine specialist referral. EMG often shows evidence of asymmetric abnormalities typical of a radiculopathy. Diagnostic criteria by Hirayama involved dynamic MRI evidence of worsening anterior spinal cord compression on neck flexion. It is believed that this compression results in unilateral ischemia to the anterior horn. Furthermore, this atrophy is rarely associated with osteophyte compression of the anterior spinal cord or with disc bulges.

Fortunately for this young population, the typical duration of symptoms is five years, and most commonly follows a benign, self-limiting course, allowing most patients to return to work or full daily activities. A cervical collar has been shown to alleviate symptoms and is the mainstay of nonsurgical management, however, many patients complain of some degree of persistent weakness as it is felt that the disease mechanism that results in a loss of lower motor neurons is not directly addressed. Proponents of a surgical option cite the associated improvement in EMG

> GIVEN THE BENIGN COURSE AND SPONTANEOUS RECOVERY ASSOCIATED WITH THIS DISEASE AND THE RARITY OF THIS PATIENT POPULATION, DIFFICULTIES ARISE IN DESIGNING A STUDY THAT EFFECTIVELY ILLUSTRATES THE BENEFITS OF CERVICAL DECOMPRESSION WITH SUPERIOR CLINICAL IMPROVEMENT. <
findings and unparalleled motor recovery not documented with nonsurgical management. However, given the benign course and spontaneous recovery associated with this disease and the rarity of this patient population, difficulties arise in designing a study that effectively illustrates the benefits of cervical decompression with superior clinical improvement compared directly to nonsurgical management. The risks of cervical fusion in a young patient, such as symptomatic adjacent segment disease, have to be weighed with the severity of motor symptoms prior to pursuing surgical options.

References

From the Ad Hoc Neurosurgical Committee for Patient Safety of the Council of State Neurosurgical Societies

On July 13, 2009, a freak aviation accident occurred when a flock of geese flew into the engines of US Airways Flight 1549 travelling from LaGuardia Airport in New York to Charlotte, North Carolina. The Airbus immediately lost engine power and was successfully guided to an emergency landing on the Hudson River. The survival of all of the passengers was immediately heralded worldwide, and Captain Sullenberger was declared a hero. Both Captain Sullenberger and First Officer Skiles were impeccable pilots, but repeatedly credited the flawless teamwork of both pilots and all the flight attendants who wound up saving the lives of all 155 occupants. The cockpit voice recorder captured the entire event. First Officer Skiles calmly read off the emergency checklist from the Quick Reference Handbook with Captain Sullenberger responding to each item. Once in the water, Skiles remained alone on the flight deck running the evacuation checklist while Captain Sullenberger made his way through the cabin checking to make sure that every passenger evacuated the plane before he too left the plane. Their systematic approach to make sure each and every item on the emergency checklist was attended to contributed to an extraordinary outcome.
> IN NEUROSURGERY, WE MAY WISH TO MODIFY CHECKLISTS TO REFLECT THE SPECIFIC SURGICAL PRACTICE. FOR EXAMPLE, A VALUABLE TOOL FOR A LUMBAR SURGICAL PROCEDURE MIGHT INCORPORATE SPECIFIC ITEMS TO PREVENT WRONG LEVEL SURGERY, SUCH AS STANDARDIZING X-RAY IMAGING AND MARKING LEVELS. <

In November of 1999, the Institute of Medicine published the report To Err is Human. This report reviewed data suggesting that between 44,000 to 98,000 people die in hospitals each year as a result of medical errors that were potentially preventable. The media attention generated by this report led to a multifaceted attempt to improve patient safety and decrease medical errors in medicine. Medical professionals smartly examined the best practices of industries like the airline industry, which had long and positive safety records. In an attempt to improve patient safety and outcomes, best systems were adopted to be used in medical practice. One of the tools implemented was the safety checklist. The implementation of the first widely publicized checklist, published in 2006, found that the implementation of a safety checklist used in the insertion of central venous catheters decreased the infection rates per 1000 catheter days from 2.7 to zero.2

During this period, The World Health Organization’s Patient Safety Programme created an initiative to improve the safety of surgery globally. Again using the airline industry as a guide, a surgical safety checklist to reduce morbidity and mortality in surgery was designed. In 2009, a widely cited article was published in the New England Journal of Medicine,3 which resulted in widespread adoption of safety checklists in operating rooms in many hospitals across the U.S. By 2009, 10% of all hospitals in the U.S. had adopted a surgical safety checklist. Despite this development, there has been resistance to its adoption by many surgeons, and neurosurgery has only recently begun to actively focus on patient safety issues.4

What lessons and key points have been learned since this time, and why has there been resistance?

Surgery involves complex decision-making at multiple levels. Surgeons know that doing the “same thing every day” improves outcomes and frequently go through their own “mental checklist” on every case. Although we each may have done a similar case hundreds of times, it is easy to miss an item on a mental checklist, particularly in an emergency situation. On the other hand, formalized checklists alone cannot prevent all surgical errors. The key to increasing patient safety and efficiency with the use of a surgical checklist centers on engaging every member of the entire operating team. By changing the culture of the operating room, attention is focused on each individual patient by every member of the operating team prior to beginning surgery. Adherence to fundamental aspects of surgical care such as following antibiotic protocols and communication between members of the surgical team has been shown to be improved with the use of the surgical checklist. I recently asked one of our operating room nurses why she favored the surgical checklist, and she quickly responded, “I feel it gives everyone in the room one last chance to make sure we are not making any simple mistakes and focus all our attention on the patient.”

So why is such a simple process not embraced by all? One suggestion has been that the Surgical Checklist has arrived in the operating room from “outside-in” and “top-down.”5 How the checklist is rolled out within the institution seems to make a difference to its adoption and implementation. The surgeon and each team member needs to understand the “whys” of what they are doing on a daily basis, and take ownership of the checklist. To be effective, the checklist must first be made relevant to each individual institution. In addition to being relevant, the checklist must be concise, so that it is manageable while it remains comprehensive. In neurosurgery, we may wish to modify checklists to reflect the specific surgical practice. For example, a valuable tool for a lumbar surgical procedure might incorporate specific items to prevent wrong level surgery, such as standardizing x-ray imaging and marking levels.

The operating room culture has traditionally been hierarchical, and incorporating a checklist requires a dedicated approach to promoting teamwork, which has been a cultural change for many. Several studies have shown that even if a change in safety cannot be measured, the operating room team “feels” that safety has been improved by engaging all members of the surgical team who become responsible as a group for the patient’s safety.

Surgical complications and errors are devastating to patients, the surgeon and all members of the operating team. While a checklist is not a panacea, incorporation of a surgical checklist is a crucial component of a comprehensive operating room patient safety program. A surgical checklist is an efficient and cost-effective means of creating a culture of safety and improving team dynamics in the operating room with the ultimate goal of reducing preventable errors.

References
Thirty-two teams of neurosurgeons from top medical institutions competed on June 7th in New York City’s Central Park as part of the 11th Annual Neurosurgery Charity Softball Tournament (www.NeuroCharitySoftball.org). The event was hosted by Columbia University, and benefited brain tumor research.

This year’s competitors included neurosurgeons from Albert Einstein, Columbia, Dartmouth, Duke, Emory, Harvard, Johns Hopkins, LSU, Mayo, Mount Sinai, NYU, Northwestern, Penn, Penn State, GW, Ohio State, Alabama, Tennessee, Utah, Thomas Jefferson, Colorado, Florida, Miami, Barrow, Michigan, Pittsburgh, Puerto Rico, USF, Toronto, Vanderbilt, Cornell/MSK and Yale University. The playoff field included Miami, LSU, Hopkins, Mayo, Jefferson, Vanderbilt, Emory, Barrow, USF, Penn, Florida, Pittsburgh, Harvard, Columbia, Alabama and Mount Sinai. The elite eight teams were Miami, Johns Hopkins, Vanderbilt, Barrow, USF, Pittsburgh, Columbia and Alabama. The final four teams were Miami, Barrow, Pittsburgh and Columbia. BNI claimed their fourth championship in five years by beating Pittsburgh in the finals.

Sponsorship was strong again this year, with nearly $100,000 being raised to support neuro-oncology fellowships for much-needed support for brain tumor research. For the eleventh consecutive year, the Steinbrenner family and New York Yankees sponsored the tournament. The event also was supported by Mayor Bill de Blasio, who declared the date “Neurosurgery Charity Softball Tournament Day” in New York City. An industry-sponsored post-tournament reception was held at Hotel Novotel in Midtown.
The Galilee has been long known for the peaceful charm of its greenery and its colorful, blossoming hills. It has now been 14 years since the Israeli Defense Forces (IDF) has completely evacuated Lebanon, and eight years since the last Lebanon War. Emergency rooms of Northern Israel have almost forgotten the sight of military wounded and yet, the Galilee Medical Center (GMC) in Naharia is anything but a stranger to war. Yet, the Syrian uprising against the Assad regime has brought nurses and doctors back in time in a very particular and unexpected way, through wounded Syrians, picked up at the border and brought here by the Israeli military for medical treatment.

The Syrian uprising has entered its fourth year of fighting with a death toll of over 150,000 and millions displaced with considerable disruption to their medical services. In March 2013, two wounded Syrians were brought to the Israeli border for the first time, and since then, more than 700 have been treated in Israel, revealing the extreme distress created by the absence of modern medical care close to the conflict scene. The first step of this surreal journey for life made by wounded Syrians is to reach the border. Not since World War I has a delay in medical attention been so long, extending for several hours and often a few days during which wounded will have to survive with minimal means of life support.

For the few lucky and strong enough to reach the border, medical care will be initiated at the field hospital created by the Israeli Forces for the purpose of resuscitation and triage (Figure 1). The hospital, staffed by soldiers in uniform, includes an emergency room, an intensive care unit, an operating theater, a mobile laboratory, a pharmacy and an x-ray facility. It treats Syrian patients who cross the border regardless of creed — or of where their loyalties lie. Within the field hospital, the once-sporadic treatment of Syrian nationals in Israel has, by now, become a routine supported by the UN and relations developed between Israeli authorities and rebels representatives. Those who are well enough are sent back across the border, and those who require further treatment are referred to one of the government hospitals in Northern Israel depending on their medical needs. As the Galilee Medical Center in Naharia is the closest suitable hospital to the border, all wounded suffering from head injuries were therefore transferred to our department (Figure 2).

Since the beginning of Israel humanitarian intervention, more than 290 wounded have been brought to GMC, 60 of them suffering from head injuries and treated in our department. Among these, there were six children, four women and 50 young men, most of them rebel fighters wounded during military operations. The mean age of these patients was remarkably young (23 years). Most injuries were either caused by shrapnel or gunshot, although some of the patients were simply victims of road traffic accidents sometimes generated by a close blast. Injuries were often characterized by both their severity and their brutality expressed by gunshot wounds inflicted from a short distance indicated by a burnt entry wound as observed in a young girl shot in the forehead. In other instances, the combination of gunshot wounds...
wound and separated blunt injury caused by a blow to the head severe enough to cause loss of consciousness was suggestive of an execution shot. Surprisingly, Glasgow Coma Scale scores on admission to the emergency room was around 10 with most patients being conscious during their first evaluation. This unexpected observation may be explained by the way Syrian wounded reached the border without any life support care and following a lengthy transfer so that only those in the best conditions, both general and neurological, could eventually reach IDF field hospital before being referred to GMC. Accordingly, the general outcome was unexpectedly favorable in respect with the type and severity of the inflicted wounds, probably reflecting the impact of modern neurosurgery and intensive care over WWI-type field care.

But beyond the purely neurosurgical characteristics and findings of the treated injuries, the human and psychological aspects of these injuries are likely the most intriguing and worth reporting. The first and most remarkable psychological difficulty facing the medical staff was how to adequately handle the extreme stress of the wounded who were unconscious when they arrived at our facility, and then regained consciousness in a Hebrew-speaking environment. For these Syrian fighters, the fear of yesterday’s enemy was fierce enough to generate a real panic based on the assumption that they would be treated as war prisoners. Most of the wounded brought in refrained from speaking and would not cooperate, especially when asked about personal issues. But over the course of their treatment, they learned that the staff did not mean them any harm, and surprising friendships emerged between patients and staff (Figure 3). Since then, the word of medical care delivered in Israel has spread, and rather than fear Israeli intervention, the wounded seek treatment across the border even for medical conditions that do not relate at all to the local conflict, such as hemorrhagic stroke or hydrocephalus.

The second and anticipated psychological aspect of our experience was that of the medical staff involved in a surreal situation where the patient was no longer a neighbor, but a former enemy. Although some legitimate concern arose in the hearts of hospital directors regarding the potential response of their staff to this awkward situation, the reality proved to be profoundly different as the humane tragedy of the wounded largely overwhelmed any other consideration. From this moment, our main focus was to ease our patients’ anxieties and treat their injuries. Based on the kindness shown by our physicians, some of the patients felt comfortable to share their concerns and fears for the future, like Ahmed, former personal bodyguard to Assad, who changed sides and was shot by rebels who suspected he was a spy.

**Conclusion**

Despite some hope arising from the situation created by the Syrian civil war in which both Syrians and Israelis were caught, it is very clear that this humanitarian effort to save these people’s lives is just a drop in the bucket compared to the real extent of the conflict — the end of which is not in sight. It nevertheless teaches an important lesson, reminding us that few individuals moved by human feelings may eventually triumph over hate, prejudice and despair.

From a more pragmatic and neurosurgical perspective, the outcomes of this series were unexpectedly favorable with respect to the types of inflicted wounds. This may be explained by the extremely lengthy transport of patients, often stretching for several days, therefore preventing patients with the worst injuries to reach the border. Nevertheless, these results suggest that penetrating injuries may carry better prognoses than normally assumed in some very selected patients. A better understanding of the physiopathology of wartime cranial injuries and outcomes related to their emergency surgical treatment will improve the care of future war-wounded individuals.
Military Response to Crossing Over: When Yesterday’s Enemy Becomes Today’s Patient

We read with interest the experience of Drs. Soustiel and Tobias as they discussed the care of casualties from the Syrian uprising that has occurred over the last four years at their facility. Neurotrauma related to war and other armed conflicts is inherently challenging given the different mechanisms of injury and the complexity of the wounds. As medical providers that serve these patients, we turn a blind eye to their nationalities or allegiances once they enter our facilities, and instead focus our energies and efforts towards either saving or improving the quality of their lives. For more than 12 years now, U.S. military neurosurgeons have been in the theater of war, both in Iraq and Afghanistan, caring for those who have suffered injuries similar to what the authors describe.

In general, we practice an early, aggressive treatment strategy for our war-wounded as we hold a strong belief that this provides them the best opportunity for recovery.

Modern neurosurgery is a medical subspecialty filled with complex technology and equipment that is lacking in forward deployed areas. In addition, the availability of neuro-rehabilitative care for local nationals is very limited, widening the disparity between what is available in-country and what is considered the standard of medical care “back home.” Despite perceived limitations, we do our best with the situation at hand. As Theodore Roosevelt said, “Do what you can, with what you have, where you are.” We would like to thank the authors for their initial contribution to our understanding of their experience with the Syrian conflict.

> Neurotrauma related to war and other armed conflicts is inherently challenging given the different mechanisms of injury and the complexity of the wounds. In general, we practice an early, aggressive treatment strategy for our war-wounded as we hold a strong belief that this provides them the best opportunity for recovery. <

The opinion and assertions contained herein are the private views of the authors, and are not to be construed as official or as representative of the views of the Department of the Army, Navy, or the Department of Defense.
In Congress Quarterly last fall, we outlined and discussed six major goals for the current two-year 2013-2015 leadership term. Among those six, the first was “To develop the CSNS, working with our parent organizations (CNS and AANS) as well as the AANS/CNS Washington Office and our state neurosurgery societies, into a truly integrated state and regional advocacy platform, with enhanced communication to and from our state neurosurgery societies, direct executive support to our state neurosurgery societies and expansion of our current national and federal advocacy and health policy efforts into the state and regional arena.” To effect that goal, a very robust and active CSNS team of individuals was brought together in a new Ad Hoc Committee led by Shelly Timmons from Pennsylvania and with Katie Orrico of our Washington Office serving in an ex-officio role. I am very happy to report that significant progress has been made towards realizing this goal.

The first component of this charge was to use the data from the three state and regional advocacy surveys completed over the last 18 months to create a formal proposal and business plan for implementing a state and regional advocacy pilot program in conjunction with one or two state neurosurgical societies, the CSNS and the AANS/CNS Washington Office, that can be presented to both parent organizations for budget approval, and subsequent implementation July 1, 2014. In fact, for this component of the committee charge, not one, but two pilot projects began in July 2014. The first involves, for the first time, proactive monitoring of state-level legislative issues by our own Washington Office staff with bi-directional communications with the relevant state neurosurgical society (New Jersey – CSNS Northeast Quadrant). The second pilot project involves, also for the first time, proactive monitoring of state-level third-party payer policies by our own Washington Office staff with bi-directional communications with the relevant state neurosurgical society (Washington – CSNS Northwest Quadrant).

In order to perform these two CSNS pilot projects, in April 2013, the CNS and the AANS approved the purchase of two new software programs for use by our Washington Office. The first is called State Track (CQ Roll Call, www.cqstatetrack.com, Figure 1), and the second is called Policy Reporter (Policy...
Data on the effectiveness of these two pilot projects will be collected between 2014 and 2015, and reported on in the fall of 2015 for consideration of the desirability and advisability of continuing and/or expanding these two CSNS projects to other states with active state neurosurgical societies. The assistance of our Washington Office, led by Katie Orrico, with these two CSNS-generated and led pilot projects is greatly appreciated.

The CSNS neurosurgery-specific patient safety initiative continues to progress towards conclusion with Greg Smith from Texas leading another energetic ad hoc committee. We expect this committee to be able to make a final report complete with recommendations by either the fall of 2014 or the spring of 2015 CSNS meeting. The remaining four goals have either already been met (numbers two and five), or are currently progressing (numbers four and six).

This winter, the CSNS added five exciting new initiatives to our agenda. The first is the codifying and endorsement by the Neurosurgery Research and Education Foundation (NREF) of a new role for the CSNS standing committees, to provide NREF with an infrastructure for review of socio-economic grants submitted to NREF.

The second is the establishment of a Joint Task Force through the CSNS Young Neurosurgeons Representative Section (led by Chaim Colen from Michigan) and the Medical Practice Committee (led by Darlene Lobel from Ohio) to study and research the US Affordable Care Act to proactively monitor changes to the act and timeline implementation implications on an ongoing basis for neurosurgery, allowing for the development of resolutions that will promote appropriate education and discussion and allow for action by organized neurosurgery in sufficient time to make a difference. Maya Babu from Minnesota has already taken a lead position on this new project.

The third is a tasking of the CSNS Communications and Education Committee led by Karin Swartz from Kentucky to form a working group to explore potential mechanisms for developing a neurosurgery medical practice training simulator to provide neurosurgeons with an opportunity to practice and train in socioeconomic management of a standard neurosurgical practice. The overall goal will be to crystalize the image and operationalize the concept for future implementation.

The fourth is the formation of a new Patient Advocacy Ad Hoc Committee under the leadership of Gary Simonds from Virginia, tasked with examining existing CSNS policies and procedures with an eye towards recommending where we can strengthen and better intertwine patient advocacy within our existing organizational processes. We expect this report to be presented at the spring 2015 CSNS meeting.

Finally, we have formed a new Neurosurgery Medical Director’s Ad Hoc committee under the able leadership of Gary Bloomgarden from Texas to explore the potentially unique perspectives, experiences and needs of neurosurgeons who serve as medical directors for clinical programs, hospitals and/or third-party payers. They will explore whether or not this category of neurosurgeon might be unique enough to warrant forming a new CSNS representative section. We also expect this committee to report out at the spring 2015 CSNS meeting.

As outlined above, in addition to our existing biannual meeting, our effective grassroots resolution process, our large, ongoing socioeconomic educational scientific program contributions to both the CNS and AANS meetings and our robust neurosurgery resident fellowship and medical student fellowship programs, the CSNS continues to advance an ambitious and stand-alone agenda designed to benefit the field of neurosurgery in the U.S. We welcome any and all ideas and offers of support and assistance in our efforts. The CSNS is an inclusive, grass roots organization, and all input and participation is welcome. Please step up and participate. Neurosurgery is our profession, neurosurgeons are the best advocates for our patients, and we need everyone to get involved.
Controversial?
We Think So

Daily Controversy Sessions

Using a Point/Counterpoint format, gain insight and understanding by listening to neurosurgical experts debate critical issues facing our profession.

2:00 – 3:30 PM
Extent of Resection of Benign Skull Base Tumors
Neo-adjuvant Radiosurgery Followed by Resection of Brain Metastases: Yes Vs. No

2:00 – 3:30 PM
Degenerative Scoliosis
TL Burst

1:00 – 2:15 PM
Management of Unruptured Intracranial Aneurysms

Controversy sessions are included in your CNS Annual Meeting registration fee!

Register and review more details today at www.cns.org!
Save $100 by registering by September 18.
The CNS has a rich legacy of leadership in providing innovative education and promoting scientific exchange among neurosurgeons worldwide, and the CNS Membership Committee is committed to understanding the needs of today’s neurosurgeon in order to ensure that the CNS delivers the tools and resources members need to be leaders and innovators in the field. Through its efforts, the CNS has successfully grown membership an average of 5.7% annually for the past five years.

Today, total CNS membership stands at 8,927, which includes over 1,400 international members from 101 countries. Much of this success comes from an extremely high retention rate of members who continue to see tremendous value in resources like Neurosurgery®, SANS Lifelong Learning, CNS Webinars, CNS SIM, and our growing catalog of courses and live events. We are confident that this trend will progress as we expand our resources and member services, and as we continue to listen to our members.

For that purpose, the CNS has established an Advisory Panel of members to help guide our decision making and inform decisions about new products and services. This panel, made up of domestic and international members from all stages of their careers, weighs in on a variety of topics via web surveys, telephone interviews and focus groups to help us constantly monitor surgeons’ professional needs.

The membership committee is currently working on a number of projects — driven in part by feedback from this advisory panel — to continue to increase membership value and improve members’ experiences. Among these projects is a review of our career center resources, a thorough analysis of all member services and benefits, and a new program aimed at better introducing new members to the many tools and resources available to them through their membership. We are confident that these efforts will mean that our members will find even more value in their CNS membership in the future, but we are always open to new ideas and suggestions.

Participation in the CNS Advisory Panel is open to all CNS members, so please contact us at info@1cns.org if you are interested in joining this forum.

> THE CNS HAS ESTABLISHED AN ADVISORY PANEL OF MEMBERS TO HELP GUIDE OUR DECISION MAKING AND INFORM DECISIONS ABOUT NEW PRODUCTS AND SERVICES. PARTICIPATION IN THE CNS ADVISORY PANEL IS OPEN TO ALL CNS MEMBERS, SO PLEASE CONTACT US AT INFO@1CNS.ORG IF YOU ARE INTERESTED IN JOINING THIS FORUM. <
The Congress of Neurological Surgeons is launching a new, comprehensive online learning initiative. Since the CNS exists to enhance health and improve lives worldwide through the advancement of education and scientific exchange, online education is a key component to meeting that mission. For the past two years, we have worked to select, configure and deliver a new learning management system that will provide you with access to the best in online neurosurgical education. Products can be filtered by subspecialty, preferred format or by conventional search methods. When you participate in online courses you will receive recommendations on related courses along with a list of what your neurosurgical colleagues are viewing.

Access to the material has been greatly enhanced, with all courses optimized for desktop and tablet. The registration, viewing and evaluation processes for all products has improved.

Not everything is new: we’ve kept the things you’ve asked us to continue. Live webinars will continue to be recorded and made available on demand within days of the live event. In addition, with all of our online education, you will be able to immediately claim credit and print your CME certificate!

CNS’ most popular online learning resource, the Self-Assessment in Neurological Surgery (SANS) products, will be completely refreshed, not only in terms of look and feel but also in terms of content. The SANS editorial board, led by Ashok Asthagiri, MD, is in the process of vetting every single SANS question. Many will be rewritten, some will be discarded, and new questions will be added. As mentioned above, access to SANS will be mobile-friendly and registration will be more straightforward.

A shining star in the portfolio of online products is the new Case-Based Learning program. Case-Based Learning modules mirror clinical experience through real cases, engaging and informing you through a scenario-based program. The modules describe a clinical situation and force you to walk through the decision-making process. William T. Curry, MD, Case-Based Learning Editor-in-Chief, states, “CBL is a highly efficient learning process, with ready availability of concepts that are applicable to and necessary for everyday neurosurgery practice.” The first cases that will be available are:

- Unruptured Right MCA Aneurysm and Asymptomatic Right Carotid Stenosis
- Parkinson’s Disease
- Epilepsy
- Lumbar Radiculopathy
- Glioblastoma
- Trigeminal Neuralgia

This exciting program has involved the work of countless volunteers who have painstakingly written and edited a variety of cases along with developing an editorial calendar that will deliver cases on a variety of topics across all subspecialties. Brian L. Hoh, MD, author of the Aneurysm and Carotid Stenosis case, states, “We are excited about Case-Based Learning as an innovative learning tool that brings the relevance of clinical case situations to the learner to enhance the education experience. Learners will find evidence-based, didactic teaching with the aid of the most up-to-date peer-reviewed literature applied to real-life clinical cases. The whole experience should be rewarding, educational, and hopefully, fun.”

The CNS is continuing to invest in developing subspecialty-specific material, so, when you need more neurotrauma/critical care credits, you can rely on CNS online education programs.

The new CNS Simulation program (see the Simulation edition of the Congress Quarterly) is integrating didactic and analytical components of the learning management system in order to teach techniques and impose standardized measurement of learning in the Simulation activities.

Lastly, content in the new learning management system has gone through a rigorous review by the CNS U Editorial Board, led by Nicholas Bambakidis, MD. The editorial board has vetted every single online course and either renewed or retired each one. You can be assured that all content is valid and current.

For Phase II of the online learning program, we will include the opportunity for discussion about each activity. We will also routinely incorporate your feedback into the products and the delivery methods in order to provide the optimal online learning system for neurosurgery.

The possibilities for delivering innovative, timely, accurate and relevant educational content in the new learning management system are endless. We are excited about the opportunity to show you more about what this new system can do. Please plan to stop by the CNS Booth in the exhibit hall for demonstrations on the new SANS and Case-Based Learning during the CNS Annual Meeting in Boston!
The Publications Committee has six members: Chairman and Editor of Congress Quarterly, James S. Harrop, MD; Neurosurgery® Editor-in-Chief Nelson M. Oyesiku, MD; Neurosurgery Managing Editor, Melissa B. Berbusse, Clinical Neurosurgery Editor Gerald A. Grant, MD; Web Editor Brian T. Ragel, and Advisory Board Member-at-Large, Ashwini D. Sharan, MD.

Neurosurgery
Melissa B. Berbusse assumed the role of Managing Editor of Neurosurgery in March 2014.

The foundation of CNS publications is the official journal of the Congress of Neurological Surgeons, Neurosurgery. This has been successfully guided and directed by Editor-in-Chief Nelson M. Oyesiku, MD, who took the helm of the journal in 2009.

This journal has improved over the last several decades with the use of supplemental electronic media such as podcasts, videos and commentaries. The advancement of video has been exceptionally helpful to the instructional and operative manuscripts. Therefore, Dr. Oyesiku has decided to transition Neurosurgery’s supplement, Operative Neurosurgery, into its own standalone journal. Operative Neurosurgery is being expanded to an electronic journal with innovative features to provide greater opportunities for further development of electronic-based media. This change into a separate freestanding journal will not change its overall high quality.

Neurosurgery has had a strong history of meeting members’ needs through the addition of supplemental journals. The recently completed simulation issue (guest editors, James Harrop and Bernard Bendok), cervical spine guidelines (guest editor, Mark Hadley) and augmented reality supplement (guest editor, Garnette R. Sutherland) are available for review on the CNS website.

Clinical Neurosurgery
Clinical Neurosurgery was one of the first publications of the CNS, and serves as an official archive and proceedings of the CNS Annual Meeting. Gerald Grant has been the editor of this successful publication, and it has been effectively transitioned into an electronic journal, allowing the CNS to reduce cost and subsequently increase distribution of the annual meetings, proceedings.

In addition to Clinical Neurosurgery containing the proceedings of the annual meeting, there is hope to further expand this journal’s role. One possibility is the transition of this journal into a vehicle for other societies with neurosurgical educational goals to also be distributed, which may enable the CNS to further broaden international exposure.

Congress Quarterly (cnsq)
Congress Quarterly is the third major product of the publication committee, and I have been fortunate to have been the editor over the last several years. The cnsq is distributed four times a year with spring, summer, fall and winter issues. This fall issue, as is done annually, is dedicated to the CNS Annual Meeting.
The CNS awards fellowships annually for research and advanced training in functional, spine, tumor, vascular and socioeconomic sections, and sponsors the CSNS-CNS Medical Student Fellowship. Additionally, the CNS awards the Christopher C. Getch Fellowship (see below). This year, the CNS is pleased to announce the following recipients of Fellowship Awards for 2014-2015:

The Christopher C. Getch Fellowship is intended to help post-residency neurosurgeons and fellows obtain advanced training in the clinical application of scientific knowledge related to neurosurgical practice. Consistent with the CNS Mission to advance health and improve lives worldwide, the Christopher C. Getch Fellowship is granted to a neurosurgeon or fellow engaged in clinical research that promises to have a significant impact on the field of neurosurgery.

### 2014-2015 CNS Fellowship Recipients:

<table>
<thead>
<tr>
<th>Fellowship</th>
<th>Christopher C. Getch Fellowship</th>
<th>CSNS-CNS Medical Student Fellowship</th>
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<tbody>
<tr>
<td>Recipient</td>
<td>Brian Walcott</td>
<td>Tyler Cole</td>
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<tr>
<td>Award</td>
<td>$100,000</td>
<td>$2,500</td>
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Eligibility
The Christopher C. Getch Fellowship is open to all senior neurosurgical residents, attending neurosurgeons and post-residency neurosurgical fellows in the United States, Canada or Mexico. The fellow will spend one year in formal clinical training under the direction of a specific sponsor. The amount of support will depend on the location and duration of the fellowship. Budget support of up to $100,000 is available. Detailed budget justification and an account of expenses incurred following completion of the fellowship are required. Fellows will not be paid extra salary support that is already covered by the clinical residency program. Fellowship funds may not be used for indirect costs. Indirect costs represent the expenses of doing business that are not readily identified within a fellowship, but are necessary for the general operation of the fellowship. Examples include but are not limited to: administrative staff, rent, utilities, equipment rental, telephone, postage and printing, and miscellaneous office supplies. In addition to the budgeted expenses, the CNS will extend complimentary CNS Annual Meeting registration. Further details about eligibility and the application process can be found at www.cns.org.

> CONSISTENT WITH THE CNS MISSION TO ADVANCE HEALTH AND IMPROVE LIVES WORLDWIDE, THE CHRISTOPHER C. GETCH FELLOWSHIP IS GRANTED TO A NEUROSURGEON OR FELLOW ENGAGED IN CLINICAL RESEARCH THAT PROMISES TO HAVE A SIGNIFICANT IMPACT ON THE FIELD OF NEUROSURGERY. <
Discover techniques to avoid and manage spine surgery complications.

Discuss management, technical, and equipment related issues in a peer review forum. Share lessons learned, safety concerns, and improve the surgical management of patients with spine disorders.

Participants will be asked to present a complication for which they were the responsible surgeon and will receive feedback from peers and expert faculty.

Course Directors:
Praveen V. Mummaneni, Daniel K. Resnick, Michael P. Steinmetz

Faculty:
Edward C. Benzel, Sigurd Berven, James S. Harrop, Thomas E. Mroz, Gregory R. Trost, Michael Y. Wang

CNS Spine Complications Course

January 26-28, 2015 • Lake Tahoe, California
Washington Update

Open Payments News: Registration and Data Submission in Process, Plus New and Updated Resources

Sunshine Act Going Live: Act NOW to Review Your Data Before it Goes Public

On June 1, 2014, the Centers for Medicare & Medicaid Services (CMS) launched the Open Payments (also known as the Sunshine Act) process for physicians to register and review their industry-reported data, which will be made public on September 30, 2014. Congress passed the Sunshine Act as part of the Patient Protection and Affordable Care Act (ACA). The goal of Open Payments is to create “greater transparency around the financial relationships of manufacturers, physicians and teaching hospitals.” Each year, manufacturers of drugs, devices, biologicals and medical supplies must report payments or others transfers of value they make to physicians and teaching hospitals.

Registration, although voluntary, is required for physicians to review and correct their data and must be completed by Aug. 27, 2014. Data released on September 30, 2014 is for payments from August through December 2013. In 2015, and each year thereafter, data will be published on June 30, and will include information from the previous calendar year. Instructions for the two-step registration process are below.

*** WARNING ***

PLEASE NOTE THAT THIS IS A MULTISTEP PROCESS. CMS CLAIMS IT WILL TAKE 30 MINUTES TO COMPLETE, BUT IT WILL LIKELY TAKE MUCH LONGER THAN THIS TO COMPLETE THE ENTIRE PROCESS.

*********

BEFORE YOU START: Have your National Provider Identifier (NPI) number, Social Security Number (if you choose to enter it, use is optional), medical license number(s), Drug Enforcement Agency (DEA) number, and your neurosurgery provider taxonomy code (which is 207T00000X) at your fingertips. You may also want to review the Open Payments Enterprise Portal Registration slide deck and the Open Payments User Guide before you start the registration process. Additionally, you may contact the Open Payment Help Desk at 1-855-326-8366. We have been told that in some instances it may take some time to get through to the Help Desk.

CMS recommends using only Internet Explorer versions 8-10, Chrome or Firefox browsers to register for the Open Payments...
system. CMS also cautions users against using their browser’s navigation buttons, which can delete registration data. Note that the system “times out” after 15 minutes of inactivity, does not have an auto-save feature, and registration must be completed in one session. Neurosurgeons who have recently registered in the Open Payments system have indicated that they were able to complete the process, but did experience some disruptions requiring them to reenter information.

PHASE 1: Complete CMS e-verification process

On June 1, 2014, CMS opened the Enterprise Portal to allow physicians to complete the e-verification process and obtain an Enterprise Identification Management (EIDM) ID number. Physicians must complete this process before they can register to see their data. In future years, this step should not have to be repeated.

1. Once you are ready to begin, go to the Enterprise Portal and select “New User Registration.”
2. Accept the terms and conditions, being sure to read the “Consent to monitoring” and “Collection of personal identifiable information” sections. Identity verification is required for all users requesting access to any CMS application.
3. Enter your personal information. Note that several fields, including Social Security Number, are optional, but the verification process is quicker if all fields are complete. Take care to enter your legal name, current home address, primary phone number, and email address correctly. CMS has contracted with Experian to verify your identity.
4. Select your user ID, password and security questions.
5. Complete registration and wait for your confirmation email.

Verification of Identity

Once you get your e-mail containing your EIDM User ID and Password confirmation, you must again log in to the Enterprise Portal to verify your data. To do this, follow these steps:

1. On the CMS Enterprise Portal, select “Login to CMS Secure Portal”
2. Accept Terms & Conditions
3. Enter EIDM User ID and Password
4. Select “Request Access Now” under “Request Application Access”
5. Select “Request New Application Access”
6. Select Application (Open Payments) and Role (Physician)
7. Review Identity Verification Information
8. Accept Terms & Conditions
9. Confirm Your Information
10. Verify Identity through a list of question such as Previous Addresses, Employers, Phone Numbers, etc.

Once you see the screen confirming that “You have successfully completed the Remote Identity Proofing process,” you may proceed to Phase Two and register in the Open Payments system to review your data. You must first log out, and then log back in to move on to the next phase.
PHASE 2: Register with CMS’ Open Payments system

Remember, in order to access your data before the public release on September 30, 2014, you must register by August 27, 2014.

Follow these steps to register and review your data:

1. Log in to the CMS Enterprise Portal.
2. Click the button on the far right that says “Request access now,” then click “Request new system access.”
3. Select “Open Payments” from the drop-down menu and input your personal information.
4. Log out of the system and wait two minutes, then log back in.
5. Select “Create My Profile” button.
6. On the “Create Profile” page, scroll to the bottom of the page and click on the “Start Profile” button.
7. On the “Select Profile Type” page, select the “Physician” radio button and click on the “Continue” button to begin the registration process.
8. Follow the on-screen instructions to complete your registration. Note the following items:
   a. The NPI and DEA numbers are key information used in the vetting process. As a result, while the system does not require these fields to be entered since not all physicians have these identifiers, the NPI and DEA numbers should be entered if you have them.
   b. You are required to enter at least one physician license number; however, to ensure that you are able to see all records that are attributable to you, you should enter all of your medical license numbers if you have multiple. Note: If you do not enter all of your license numbers, you may not be able to view all of your records.
   c. You may choose to add an authorized representative to take certain actions on your behalf in the Open Payments system. This person can be another physician, an office manager, a practice manager, or another person you would like to designate. You may designate this person during your registration process by selecting the “Designate an authorized representative” radio button on the “Physician: Authorized Representative” page. In addition to identifying the individual’s personal information, you will also designate the levels of access that you would like to grant the authorized representative. Refer to the onscreen text or the User Guide for the available access roles that can be assigned. If you do not wish to identify an authorized representative during registration, you may select “Not now”, and add this information at a later time via the Update Profile function.
9. Once you have entered all of your information per the on-screen instructions, and selected the “Submit” button on the “Review and Submit Profile” page, your profile will automatically be submitted for vetting. The vetting process is performed to ensure that the physician is a valid covered recipient and to aid in the matching of submitted records to the corresponding physicians.

Note: Physician registration is not considered complete until the vetting process has been successfully completed. As a result, you will not be able to access some of the Open Payments system functions, including the Review and Dispute functions, until the vetting is successful. You can check your profile status by going to “My Profile” and reviewing the “Role Status” field. After you have logged in, select the Open Payments tab. Then select “Create My Profile” to begin the registration process.
PHASE 3: Review and dispute data by August 27 (NOTE: This date may be extended to reflect the number of days that the Open Payments registration system was off-line due to technical glitches).

Once registered, physicians can request their individual reports, review and flag any disputes. CMS has indicated that it will not resolve disputes, but errors can be reported to manufacturers through the Open Payments System or directly through Open Payments contacts listed on most manufacturer websites. Physicians must initiate disputes by August 27 to have potentially erroneous data flagged in the initial public release. Physicians can still initiate disputes on 2013 data until December 31, 2014, but it will not be flagged in the public database until 2015.

While some neurosurgeons have found their data to be accurate, others have discovered incorrect payments attributed to them, including costs associated with food and beverage for events that they did not attend. In these instances, neurosurgeons have contacted the pertinent manufacturers to request that the information be corrected.

For more information: Visit the CMS website at http://go.cms.gov/1pLgHyV or by contacting the Open Payment Help Desk at 1-855-326-8366. Neurosurgeons with questions may also contact Catherine Hill, Senior Manager for Regulatory Affairs in the AANS/CNS Washington Office, at chill@neurosurgery.org or at 202-446-2026.
A 46-year-old male presented to ophthalmology and otolaryngology for treatment of left orbital cellulitis and bilateral sinusitis after dental abscess. Post-operative day one, patient was noted to have right-sided ophthalmoplegia. CT-Angiography (A) and subsequent formal angiography (B) demonstrated a large pseudoaneurysm filling the entire right cavernous sinus. The patient underwent placement of a flow-diverting stent (C) from the proximal cavernous ICA to the ICA terminus (arrows). Contrast stasis persisting well into the venous phase on post-stent injection predicts high likelihood of treatment success.

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Thank You!
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