

2014 ANNUAL REPORT

ADVANCING PATIENT CARE THROUGH THE SCIENCE OF PRACTICE



NEUROPOINT
ALLIANCE

est. 2008

NPA PRESIDENT'S MESSAGE



There is an ever-increasing demand from patients, licensing boards, hospitals, third-party payers and the federal government for neurosurgeons to document the quality and value of their treatments. In this kind of environment, only those organizations that can collect, analyze and deploy clinical and economic data will prosper. In anticipation of this, the AANS created the NeuroPoint Alliance (NPA) in 2008. NPA is a not-for-profit 501(c)(6) corporation that was created to allow organized neurosurgery to carry out a wide variety of national projects involving the acquisition, analysis and reporting of clinical and economic data from neurosurgical practice, using online technologies. The corporation is run by a board of directors who are appointed by the AANS, ABNS, CNS, SNS and the AANS/CNS Spine Section. NPA projects include investigator initiated multicenter studies, data collection for the American Board of Neurological Surgery's primary certification and maintenance of certification processes and registries of neurosurgical procedures. NPA collaborates with various data management groups, including the Vanderbilt Institute for Medicine and Public Health (VIMPH), Quintiles/Outcome and Acesis, in order to provide the highest quality data collection, analysis and feedback.

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The NPA's largest effort, the [National Neurosurgery Quality and Outcomes Database \(N²QOD\)](#) is a prospective clinical registry designed to generate high-quality neurosurgical patient outcomes data. Participation in N²QOD requires centers to purchase access to the database, commit to at least three years of data collection and employ a data manager who has at least 50-percent commitment to this project. This national registry program, done in collaboration with VIMPH, has been active for almost 30 months. In February 2012, the N²QOD Lumbar Spine Module was piloted in three academic centers. The program has expanded rapidly and as of June 30, 2014, 50 programs in academic and community settings across the United States are participating in the program. A total of 53 sites have achieved complete institutional review of the project and the NPA is activating new sites weekly. More than 11,000 patients have been enrolled in the N²QOD lumbar and cervical modules, making the N²QOD the largest spine registry in North America. The infrastructure of the N²QOD has been designed to allow us to greatly expand the number of participating sites over time. A detailed methodological description of the N²QOD project and the rationale behind the structure of this surgical registry are described in papers in the January 2013 issue

of the *Journal of Neurosurgery*, *Neurosurgical Focus*, which is dedicated to the “[Science of Practice](#).” The N²QOD was also featured at the AANS Annual Scientific Meetings in 2013 and 2014. An N²QOD vascular neurosurgery module is also being beta tested and will become available for use in the near future. Centers that have already purchased access to the N²QOD database for their spine cases will be able to add the vascular module without additional cost. Centers that purchase the vascular module will also have access to the lumbar and cervical spine modules. An N²QOD Deformity Module will round out the spine registry and will be available in Fall 2014. We hope to continue to enlarge the menu of neurosurgical procedures included in the N²QOD database.

NPA and the Neurosurgery Research and Education Foundation (NREF) will also be introducing a stereotactic radiosurgery registry in January 2015. This registry, identified as a priority by functional neurosurgeons and industry, was brought to NPA through the NREF Development Committee. The NREF has secured an educational grant from Brainlab to develop and administer the registry. Additional funding is expected through educational grants from other companies. The SRS Registry will consist of 30 centers in the United States entering patient data for a minimum of three years. This project is an excellent example of the kind of things we can accomplish when the AANS, NPA and the NREF work seamlessly together.

Robert E. Harbaugh, MD, FAANS
2013-2014 NPA President

NPA

NEUROPOINT ALLIANCE: ADVANCING PATIENT CARE THROUGH THE SCIENCE OF PRACTICE



NeuroPoint Alliance (NPA) was established in 2008 by the American Association of Neurological Surgeons to collect, analyze and report on nationwide clinical data from neurosurgical practices. It is supported by other neurological societies, including the Congress of Neurological Surgeons (CNS), Society of Neurological Surgeons (SNS) and the American Board of Neurological Surgery (ABNS). NPA is a not-for-profit 501(c)(6) corporation that coordinates a variety of national and international projects.

NPA is designed to meet the quality care and research needs of a broad range of health-care stakeholders, including individual practitioners, practice groups, national professional organizations, health-care plans and the biomedical industry. Industry-sponsored studies can include randomized trials, registries and post-marketing surveillance of new devices. NPA's capabilities include outcomes research, universal data reporting requirements for maintenance of certification (MOC), maintenance of licensure (MOL) and the physician quality reporting system (PQRS) and local and national quality improvement efforts.

NPA, partnering with Outcome/Quintiles, serves as the data collection agency for the ABNS candidate case logs and Maintenance of Certification (MOC) part 4 key case reporting requirements. NPA continues working with the ABNS regarding refinements to its existing MOC program.

The NPA's most significant initiative in fiscal year 2014 continued to be the National Neurosurgery Quality and Outcomes Database (N²QOD), a prospective clinical registry designed to address the need for high-quality patient outcomes data related to care of patients with neurosurgical disorders. The N²QOD tracks, analyzes and reports on the quality of surgical care for the most common neurosurgical procedures. It is the first and currently only nationally coordinated registry in the United States

to measure one-year effectiveness of care using validated patient centered measures. NPA works with the Vanderbilt Institute for Medicine and Public Health (VIMPH) to manage the collection and analysis of N²QOD data. In 2013, VIMPH began providing descriptive benchmarks and risk-adjusted variables in N²QOD reports to participating centers.

The N²QOD Lumbar Spine Registry is now into its third year. The Lumbar Spine Module was launched on February 22, 2012, in three academic sites. By fiscal-year end, N²QOD had more than 11,000 patients enrolled in the Spine registry, and by July, had more than one million independent variables collected across 40 participating sites. At the end of fiscal year 2014, there were 50 contracted sites. NPA obtained determination from the U.S. Department of Health and Human Services' (HHS) Office for Human Research Protections (OHRP) that N²QOD program activities do not constitute as human subject research and therefore informed consent is not necessary, at least by OHRP guidance. To date, 53 institutions have completed all phases of IRB and internal quality review. Of these, only one center has a requirement for written consent, while all other N²QOD sites are participating with waiver of written informed consent for obtaining patient-reported outcomes.

The N²QOD Lumbar Module presented one-year predictive data on April 9, 2014, at the AANS Annual Scientific Meeting in San Francisco. The presentation, titled, "National Neurosurgery Quality and Outcomes Database (N²QOD): Interim Results and Predictors of Persistent 12 month Disability Following Lumbar Surgery," is available on the [NPA website](#).

With the rapid growth of the N²QOD spine registry, NPA began to focus on ways to optimize data collection through data automation and data integration with the electronic medical record (EMR). N²QOD's data integration initiative was highlighted in the [June 2014 issue of AANS Neurosurgeon](#). N²QOD was also featured in [Becker's Spine Review](#), and in [Spine Surgery Today](#).

The N²QOD Cerebrovascular (CV) Module began its pilot phase in February 2014 within two centers. The pilot will expand to three additional centers in July 2014, and it is expected the CV Module will be available for all sites by end of summer 2014. The N²QOD Spinal Deformity Module was developed with the Scoliosis Research Society (SRS) in May 2014 and is undergoing review by the N²QOD Scientific Committee. It is anticipated that the Spinal Deformity Module will be available in early Fall 2014. A Brain Tumor module is in development intended for piloting by fall of 2015. The highly anticipated Essentials Module will provide basic safety and quality data to the individual neurosurgeon, while also satisfying reporting requirements including Maintenance of Certification (MOC) and Physician Quality Reporting System (PQRS). The Essentials Module is a high priority for 2015.

In May 2014, the N²QOD became an approved Centers for Medicare and Medicaid Services (CMS) 2014 Physician Quality Reporting System (PQRS) registry vendor, marking NPA's second year as a PQRS registry vendor. The N²QOD reports quality data to CMS on behalf of participating physicians through the Perioperative Care Measures Group.

A notable project in opinion research was conducted by the NeuroPoint Alliance in 2013. The NeuroPoint Alliance was approached by Oslo University Hospital in Norway with a request for an expert committee to evaluate its use of a procedure, Intracranial Pressure (ICP) amplitude. The NPA convened a panel that included experts in cerebrovascular surgery, neuro-critical care and neuro-engineering. The panel conducted a review of 12 journal articles on the use of monitoring ICP wave in specific neurosurgical patients, and provided an evaluation in a final manuscript to Oslo University in May 2014.

EXPANDING NEUROSURGERY BY TRACKING LONGITUDINAL OUTCOMES

Jason Sheehan, MD, PhD, FAANS, spearheads the creation of a new stereotactic radiosurgery registry

In the six years since its inception, NeuroPoint Alliance (NPA) has seen overwhelming success with its National Neurosurgery Quality and Outcome Database (N²QOD), a continuous national clinical registry tracking practice patterns and patients outcomes for neurosurgical and spine procedures. It recently marked the launch of a new registry project for stereotactic radiosurgery, and central to its creation was Jason Sheehan, MD, PhD, FAANS.



That Sheehan arrived at a career in neurosurgery and showed a keen interest in stereotactic procedures seems like a principle of electromagnetism at work: “Neurosurgery was a natural attraction. The instant gratification of performing a neurosurgical procedure appealed to me. Prior to medical school, I studied engineering and biological physics. Applying engineering and mathematical solutions to neurosurgical approaches has interested me the most. Hence, my perspective in engineering and physics is illustrated well in the field of stereotactic radiosurgery (SRS). SRS allows neurosurgeons to use physics and engineering principles to deliver minimally invasive treatments to patients with complex intracranial and spinal disorders.”

Yet, beyond the science, the people element also factors into his love of profession. “While I still conduct basic science and translational research,” he revealed, “I find the surgical approaches and the patient encounters very rewarding.” He further credits his mentors with “helping to foster [his] passion for neurosurgery.”

As a testament to how networking within the specialty can generate exciting new developments, a conversation with his brother, Jonas Sheehan, MD, FAANS, also a neurosurgeon, ultimately led to the development of this unique, industry-sponsored registry. Dr. Jonas Sheehan works with Robert Harbaugh, MD, FAANS, the 2013–2014 NPA president, at Penn State Medical Center. Sheehan explained, “Jonas had mentioned to me about Dr. Harbaugh’s ideas for scientific advancement in neurosurgery through the use of prospective registries.” Interested, Sheehan learned more from Harbaugh and Anthony Asher, MD, FAANS, N²QOD director, about the successes and challenges of the lumbar spine registry, he said. Then, some of his colleagues at the University of Virginia, Christopher Shaffrey, MD, FAANS; and Mark Shaffrey, MD, FAANS, were some of the early adopters of N²QOD’s lumbar registry, he said, affording

him an opportunity to observe registry participation from a practical perspective. The success of that inaugural registry eventually encouraged the creation of others. “Over the past couple years,” Sheehan recounted, “[other neurosurgeons] and corporate partners gradually came to realize that SRS would be a good field for a prospective, quality registry. With time, concerted effort and a bit of luck, the SRS registry became a reality.”

NPA’s new SRS registry represents a collaboration between the American Association of Neurological Surgeons (AANS) and the American Society for Radiation Oncology (ASTRO). “As SRS is performed in a multidisciplinary fashion,” Sheehan said, describing the organizations’ working relationship, “the partnership between AANS and ASTRO on this registry makes a lot of sense. Working together, the AANS and ASTRO could perform better science to improve quality and patient outcomes. Moreover, corporate partners truly wanted us to work together on a single national SRS registry. The data elements, acquisition of the data, data analysis, data governance and dissemination of findings are overseen by the SRS registry board, and I am a member of this board.”

Explaining how this new registry differs from its counterparts, Sheehan noted, “Unlike past NPA efforts, the SRS registry is funded in large part through educational grants from corporate partners. There is also financial, administrative and intellectual support and governance given by the parent professional societies. The registry is truly a national effort. In year one, 30 high-volume SRS sites will begin to accrue patients to the registry. Data is collected prospectively and stored in a data repository housed by Quintiles, a national company with extensive experience in medical trials and analytics.

“I am truly excited about this launching of the SRS registry,” Sheehan shared. “Radiosurgery is a rapidly growing field for neurosurgery and radiation oncology. It has broad indications in the treatment of benign and malignant tumors, vascular malformations and functional disorders. The registry will give us the ‘big data’ that we need to refine the current techniques and indications and improve patient outcomes. Such data can only be derived in a prospective fashion from large patient cohorts and in real life clinical situations not hindered by clinical equipoise.”

In summary, he added, “I believe that the SRS registry is just the tip of the iceberg for future specialty-specific national registries in neurosurgery.”

Jason Sheehan, MD, PhD, FAANS, completed undergraduate and graduate studies, as well as his residency at the University of Virginia, and he performed fellowships at the University of Pittsburgh Medical Center and at the University of Auckland in New Zealand. In addition to his work on the SRS registry, Sheehan is the Harrison Distinguished Professor and vice chair of neurological surgery at the University of Virginia. A member of the American Association of Neurological Surgeons (AANS), the American College of Surgeons, Leksell Gamma Knife Society, Neurosurgical Society of the Virginias, AANS/CNS Tumor Section, and the American Society of Stereotactic and Functional Neurosurgeons, he is the author or co-author of more than 250 peer-reviewed papers.

AANS AND RELATED ORGANIZATIONS

FISCAL 2014 Financial Summary

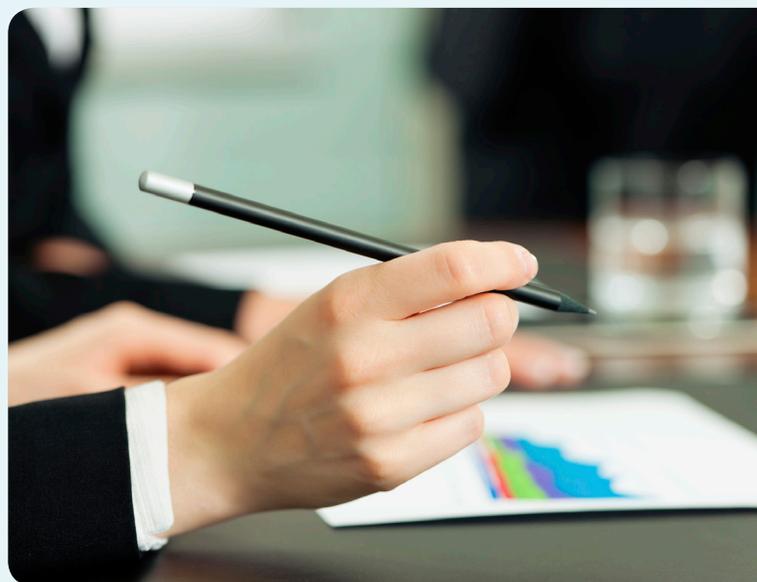
While fiscal 2014 was a profitable year financially for the American Association of Neurological Surgeons (AANS), it also was a year that included a significant change in fiscal process and financial record-keeping. Fiscal 2014 saw the creation of a new legal entity — the Neurosurgery Research and Education Foundation (NREF). Prior to its incorporation, the activities of the NREF were conducted directly within the auspices of the AANS; however, during fiscal 2014, activities and assets were divided between the AANS and the newly incorporated NREF.

This change creates multifaceted channels for the AANS that can better serve its members and their patients. Through the member association (AANS), its philanthropic arm (NREF) and its data collection and reporting group, NeuroPoint Alliance (NPA), the AANS — taken as a whole — specializes in a variety of activities that benefit neurosurgery: from advocacy to publishing, from research to education and from data collection to outcomes studies.

Strong investment yields benefited the AANS and the NREF, which helped them both to finish with a profitable year. NPA finished fiscal 2014 with its smallest-ever deficit, and it is anticipated that fiscal 2015 will see NPA operating as a profitable organization.

This report reflects the financial statements of the AANS, the NREF and the NPA, covering the period of July 1, 2013, through June 30, 2014.

While the year-end financial statements of the AANS, the NREF and the NPA are audited by outside auditors, this annual report is being prepared prior to a completed audit and contains unaudited final numbers. Any material differences between a published financial statement and the auditor's report will be communicated to AANS members in [AANS Neurosurgeon](#). Copies of the most recent audit are available to members by writing to: AANS Accounting Department, 5550 Meadowbrook Drive, Rolling Meadows, IL 60008-3852.



AANS

AANS AND RELATED ORGANIZATIONS

Statement of Financial Position *06/30/2014*

ASSETS 2013-2014	AANS	NREF	NPA	Consolidated
Cash and Investments.....	\$20,495,755	\$3,290,299	\$51,128	\$23,837,182
Other Current Assets.....	714,533	0	4,364	718,897
Property and Equipment, net.....	3,178,615	0	0	3,178,615
Other Assets.....	9,412,927	686,219	195,000	10,294,146
TOTAL ASSETS.....	\$33,801,830	\$3,976,518	\$250,492	\$38,028,840

LIABILITIES AND EQUITY	AANS	NREF	NPA	Consolidated
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Liabilities & Equities

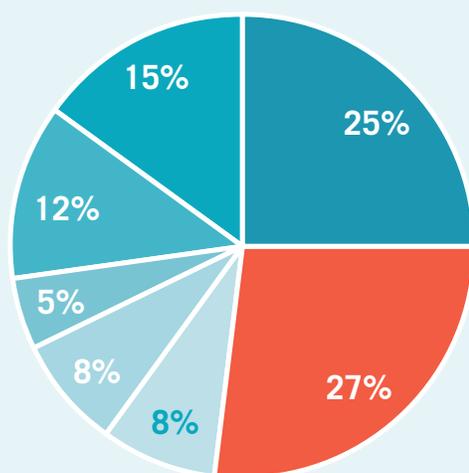
Accounts Payable.....	\$7,516,247	\$1,072,957	\$148,542	\$8,737,746
Deferred Revenues.....	2,706,426	67,500	299,000	3,072,926
TOTAL LIABILITIES.....	\$10,222,673	\$1,140,457	\$447,542	\$11,810,672

Equity

Beginning Net Assets.....	\$22,624,852	\$1,841,472	\$9,326	\$24,475,650
Net Income.....	954,305	994,589	(206,376)	1,742,518
TOTAL EQUITY.....	\$23,579,157	\$2,836,061	(197,050)	\$26,218,168
TOTAL LIABILITIES AND EQUITY.....	\$33,801,830	\$3,976,518	\$250,492	\$38,028,840

AANS AND RELATED ORGANIZATIONS INCOME STATEMENT *For the Year Ended 06/30/14*

Revenue	AANS	NREF	NPA	Consolidated	% of total revenue
Dues/Contributions Income.....	\$2,511,887	0	\$586,750	\$3,098,637	15%
Annual Meeting Income.....	4,992,666	0	0	4,992,666	25%
Publications.....	5,565,341	0	0	5,565,341	27%
EPM.....	1,657,661	0	0	1,657,661	8%
Fundraising.....	0	1,624,372	0	1,624,372	8%
Resident & Clinical Courses.....	0	923,883	0	923,883	5%
Investments.....	1,617,046	797,843	0	2,414,889	12%
Total Revenue.....	\$16,344,601	\$3,346,098	\$586,750	\$20,277,449	



CONSOLIDATED REVENUE SOURCES

- Dues/Contributions Income
- Annual Meeting Income
- Publications
- EPM
- Fundraising
- Resident and Clinical Courses
- Investments

AANS Mission Statement

The American Association of Neurological Surgeons (AANS) is the organization that speaks for all of neurosurgery. The AANS is dedicated to advancing the specialty of neurological surgery in order to promote the highest quality of patient care.

AANS Vision Statement

- The American Association of Neurological Surgeons will ensure that neurosurgeons are recognized as the preeminent providers of quality care to patients with surgical disorders that affect the nervous system.
- The American Association of Neurological Surgeons will work to expand the scope of neurosurgical care as new technologies and treatments of neurological disorders become available.
- The American Association of Neurological Surgeons will be the organization speaking for neurosurgery through its communications and interactions with the public, media, government, medical communities, and third-party payers.
- The American Association of Neurological Surgeons will be its members' principal resource for professional interaction, practice information and education.
- The American Association of Neurological Surgeons will promote and support appropriate clinical and basic science to expand the scope of neurosurgical practice.

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