New All-inclusive Registration Rate Makes 2016 Fall Conference More Flexible, Convenient

The 2016 AAN Fall Conference, set for October 14 through 16 at The Cosmopolitan of Las Vegas, is your year-end destination for acquiring the latest clinical advances in neurology from experts in the field while earning up to 15.75 CME credits. For the first time, the conference will offer a single-rate registration that includes most education programs, eliminating the need to select courses in advance and allowing the flexibility to move between sessions as you wish.

Come and go between programs of most interest to you:

- **Six Neurology Update** courses will provide a review and update in key areas of clinical neurology covering autoimmune neurology, autonomic neurology, epilepsy, headache, movement disorders, MS, neuromuscular disease, neuro-oncology, neuro-otology, sleep, and stroke.

- **Six Practice Management** programs will cover CPT coding, business strategies for small group and solo practitioners, ICD-10-CM, MIPS, value of advanced practice providers, and ACO options.

Continued on page 6 »

New AAN Research Program Demonstrates Greater Commitment to Neurology

The AAN is committed to making a profound difference in the lives of researchers, which in turn will make a difference in the lives of patients with brain disease. To demonstrate its dedication to promoting neurology and neuroscience research and training, the AAN has launched an ambitious new AAN Research Program for 2017.

**Two New Awards**

Two new, large-scale awards mark the AAN’s pledge to support all types of research across all career levels and discovery stages. The application deadline for both awards is October 1, 2016.

Continued on page 10 »

The AAN Axon Registry: How It Works in a Small Practice

Since last summer, the AAN’s Axon Registry™ has been trialed and tested to make sure the variability in documentation practices is accurately reflected in the data. Four cohorts of neurology providers, including nearly 1,000 neurologists in 70 practices and representing 291,000 patients with an accumulated 791,000 total visits, have run smoothly and participants value...
NEWS BRIEFS

AAN Chief Health Policy Officer Rod Larson recently retired after 16 years of leading the Academy’s Center for Health Policy. Larson directed the AAN’s advocacy efforts—including the creation of Neurology on the Hill, the Palatucci Advocacy Leadership Forum, and our political action committee BrainPAC—as well as AAN guidelines, medical economics, quality improvement, and the new Axon Registry. We wish Rod the best during his well-earned retirement!

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As you know, the AAN has more than 30,000 members. That translates into 30,000 sets of viewpoints, needs, challenges, and successes. We come together in this association to be strengthened in our skills, to learn from one another, so we can be better in our jobs today than we were yesterday. And be better tomorrow than we are today.

To help the AAN carry forward its mission and sustain its vision, I’m inviting you to apply to join in leading the world’s largest association of neurologists. Never has it been more important to the future of the Academy to increase inclusion from under-represented members—specifically those in solo and small practice, female members, neurologists of various ethnic backgrounds, and those early in their career.

I encourage you to nominate yourself or a colleague you respect by September 1 for the open positions on the Board of Directors for the upcoming 2017–2019 term. The Academy’s Nominations Committee will review candidates for president elect, secretary, treasurer, and director positions. You can find more information and make nominations at AAN.com/view/nominations.

To qualify for nomination, one must be a Fellow (FAAN) physician of the Academy, and any member may recommend a Fellow for consideration. If you are not yet a Fellow, you can easily apply for your FAAN credentials today at AAN.com/view/FAAN. I am pleased that we have seen a significant rise over the past year in the number of members successfully elevating their status to Fellow through recognition of their accomplishments, which opens the door to this unique opportunity to lead the AAN.

The Nominations Committee strives for balance and diversity, including geography, gender, subspecialty, professional setting, time in the profession, and ethnic origin. But the committee can only consider from the range of nominations received. I strongly encourage Physician Fellows in these demographics to not let modesty stand in the way of making a significant contribution to the future of the Academy—and further enhance your professional standing and member experience. Whether you are nominated by yourself or your peers, you have particular experiences, insights, and concerns that need to be part of the Board’s collective consciousness and contribute to our continued success.

Through the years, the Academy has been fortunate to have experienced, perceptive members step forward to qualify for consideration, and our selections—voted on by members at the business meeting during the Annual Meeting—have been exceptional. Over the past decade in particular, the board has taken on a more sophisticated strategic role, working with information and data provided by our executive staff and input from our 30,000 members to help us define our strategic goals and objectives to support our mission and vision. We then charge Executive Director and CEO Catherine M. Rydell, CAE, and her greatly talented staff to do the necessary work to make it all happen. This approach has been very successful, both for the organization and for meeting the needs of the members we serve.

I think I can speak for my colleagues on the Board in saying that serving in such a leadership role will not leave you unchanged. While the responsibilities are significant, and the issues faced are often complex, you will gain a broader understanding of our profession and appreciation of the AAN’s critical role within it. You will be challenged to lift our accomplished association to an even higher level of achievement. Also, you will be asked to be a mentor and provide guidance to participants in our AAN Leadership Program. And you will be able to apply this experience, with newfound knowledge, skills, and perspectives, to your daily work in your practice or institution and to future leadership opportunities beyond the AAN. •

Learn more at AAN.com/membership.

President’s Column

Seeking Greater Inclusion, Broader Perspectives in New Board Nominees

I encourage you to make an application and to participate in shaping the future of the Academy as we work to increase the diversity of our membership and leadership. I am pleased that we have seen a significant rise over the past year in the number of members successfully elevating their status to Fellow through recognition of their accomplishments, which opens the door to this unique opportunity to lead the AAN.

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Expand Your AAN Experience

Looking for ways to get involved in the AAN? The Academy offers numerous ways for you to help shape the future of the neurology profession and extend your network of colleagues through closer participation, networking, and peer recognition.

- Apply for a leadership role by participating on committees, work groups, or task forces
- Review drafts of AAN guidelines
- Apply for one of the AAN Leadership Programs
- Participate in advocacy programs such as Neurology on the Hill and respond to AAN Action Alerts
- Network and learn from your peers in Synapse, our new online communities

Learn more at AAN.com/membership.
Neil A. Busis, MD, FAAN

This is the latest in a series of profiles of members of the Board of Directors for the AAN and AAN Institute.

Neil A. Busis, MD, FAAN, is director of community neurology of the University of Pittsburgh Physicians department of neurology and clinical professor of neurology at the University of Pittsburgh School of Medicine. He is chief of neurology and director of the neurodiagnostic laboratory at UPMC Shadyside, Pittsburgh, PA.

Busis serves on the Board of Directors of the AAN and is a former chair and member of the AAN’s Medical Economics and Management Committee (MEM). He is a member of the AAN’s Meeting Management Committee, Neurologist Burnout Task Force, and MEM’s Coding Subcommittee. He is the principal investigator of the AAN Neurologist Burnout Study. Busis serves as the AAN’s Alternate Advisor on the American Medical Association’s CPT Advisory Committee and formerly represented the AAN on the Relative Value Update and Practice Expense Advisory Committees.

What moved you to join the Board of Directors?
I became a member of the Academy in 1982 during my neurology residency, achieved fellowship status in 1993, and joined my first committee in 1995. All committee work is tactical, driven by strategies created by the Board of Directors. I wanted to participate in drafting those strategies, especially while the health care landscape is undergoing disruptive transformation.

What experiences and viewpoints do you bring to this role?
I’ve had three different but related professional experiences that help me contribute to the Board’s activities: clinical neurology, 27 years of which were in private practice, and equally long-standing experience in health care policy and reimbursement and health information technology. I know firsthand what it takes to run a successful private practice. I’ve personally advocated for our specialty with CMS and its predecessor HCFA; wrote many of the CPT codes for neurologic procedures and worked with other members of our Academy and other organizations to get them the proper relative values; and was an early adopter of the World Wide Web, email, and mobile computing for medical purposes, helping introduce and promote use of these technologies to the AAN and other neurological organizations.

From your experiences as an AAN leader, what is one of the more common misperceptions members may have about the Academy?
There are a few members who may think we have strayed from the original vision of the four founders of the Academy in 1948 to provide support, education, and networking opportunities for practicing neurologists, instead thinking we are now an “ivory tower” organization that grants only second-class status to practicing neurologists. This is not true.

Health care delivery and reimbursement are changing at a dizzying pace. While many Academy members have volunteered countless hours to advocate tirelessly for the adoption of evidence-based meaningful and equitable improvements in neurologic practice, our efforts have not always been successful. This is understandable since neurology is only a small part of the entire health care system and there are massive political and economic forces at play. Members sometimes “shoot the messenger,” namely the AAN, instead of acknowledging their professional world would be much less friendly to our efforts if we hadn’t worked so hard on practice issues for so many years.

In your view, how does the AAN benefit the field of neurology most?
We are the only US neurology organization that is a big tent. We are inclusive—all neurologists in all specialties and types of practice are welcome to contribute to our efforts—and resource-rich. We have the best practice guidelines and quality measures of any neurologic organization. We have outstanding staff, including advocacy and regulatory experts in Washington, DC. We have the only neurologic PAC. We have members in very influential positions in national organizations such as the Relative Value Update Committee that determine present and future health care policy and reimbursement.

How should members evaluate the success of the AAN and the
Board of Directors in supporting their careers and neurology in general?

We are “dedicated to promoting the highest quality patient-centered neurologic care and enhancing member career satisfaction.”

The AAN’s vision is to be “indispensable to its members by providing guidance and inspiration through education, information, policy development, and advocacy for our members and their patients, while maintaining the highest ethical and professional standards.”

How well has the Academy fulfilled our vision and mission? Have we provided the resources (human, electronic, print, etc.) you need to provide the highest quality patient-centered neurologic care and enhance your career satisfaction?

How do you deal with the challenges of balancing the demands of your work and personal life?

Due to a rapidly growing body of research, we are starting to understand the primary drivers of burnout and satisfaction in physicians: workload, efficiency, control over work/autonomy/flexibility, work-life integration, and finding meaning in work. In order to promote personal wellness and prevent burnout, I’ve addressed all these drivers. I joined the University of Pittsburgh Physicians in 2012 and now share call and other clinical responsibilities with more colleagues than when I was in a small private practice. This is the single most important factor in improving my work-life integration. Our department has staff dedicated to helping us succeed in practice despite the increasingly complex mandates that govern documentation, information technology infrastructure, and billing and reimbursement. Since we don’t have to directly deal with the regulatory environment, it’s easier and more efficient to care for patients compared to my last few years in private practice. I find more meaning in work by increasing my teaching activities with medical students and residents and with my work at the Academy, where I aim to improve the professional environment for all US neurologists. The minor decrease in autonomy from joining a large organization is a fair trade to gain all these advantages. *
Conferences

Save the Date: January Breakthroughs in Neurology Conference

The Breakthroughs in Neurology conference is scheduled for January 13 through 16, 2017. The always popular conference will once again offer an exceptional opportunity to earn valuable CME in one convenient weekend while getting a year-in-review of the best neurology science and education. Learn more and look for registration to go live in September at AAN.com/view/Breakthroughs.

Annual Meeting Attracts International Media Coverage

Media outlets from around the world covered news from the 2016 Annual Meeting. AAN press releases on Emerging Science abstracts gained coverage on topics including correlation between the Zika virus and brain disease, traumatic brain injury in retired football players, and an ultrasound device for concussion. Media outlets such as the New York Times, Los Angeles Times, Washington Post, Boston Globe, TIME magazine, Voice of America, NBC, CBS, and FOX featured the AAN’s science news. The Academy’s launch of its updated botulinum toxin guidelines also attracted media attention from such publications as USA Today, Newsweek, MedPage Today, and others.

New All-inclusive Registration Rate Makes 2016 Fall Conference More Flexible, Convenient

- Two new Update in Stroke courses
- Two half-day programs:
  - Continuum®: Test Your Knowledge: A Multiple Choice Question Review
  - NEW! AAN Leadership University Course: Challenges of Leadership in Private Practice

You may also add the interactive new Headache Skills Workshop to your Fall Conference registration for an additional fee. The Headache Skills Workshop will take place Saturday, October 15, from 1:00 p.m.-5:00 p.m.

Please note that while registering you may be asked to select your course schedule. This is for planning purposes only. During the conference, you may move between sessions as you like. Browse the full program and register at AAN.com/view/fall.

Save $100+ When You Register by September 8
Early registration savings will end September 8, 2016. Save $100 or more when you register by this date. Visit AAN.com/view/fall today!
MACRA APM: The Path Less Taken? Maybe Not

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) launched a complete overhaul of the Centers for Medicare & Medicaid Services’ payment system, changing it from fee-for-service to a value-based payment system. The two major payment options in MACRA are the Merit-based Incentive Payment System (MIPS) and the alternative payment models (APM).

CMS expects that most neurologists will be in the MIPS path, at least in 2019 based on what you do in 2017. APMs will be options for physicians who do not wish to use MIPS or do nothing. But if you are a neurologist who currently is participating in some sort of an APM (such as an ACO, bundled payment, or medical home) or if you are considering becoming part of an APM soon, it oversimplifies things to think that participation in an APM only falls under the second path. The MACRA proposed rule, in fact, offers a few ways that participation in an APM can affect your payment and reporting:

- **MIPS APM:** Participant is still subject to MIPS bonuses or penalties; more APMs will likely fall into this category
- **Advanced APM:** Participant can earn 5 percent bonus payment in addition to any APM-specific rewards; high threshold for an APM to be designated as an Advanced APM
- **Partially Qualifying APM:** Participant is in an Advanced APM but doesn’t have enough patients or payments to meet the full requirements; can opt out of MIPS or receive favorable scoring in MIPS

In a hearing with CMS Acting Administrator Andy Slavitt in May, Congress voiced apprehensions on the APM rules—concerns shared by the AAN. Congressional members raised two key worries about the MACRA rule. The first is that the criteria for what constitutes an APM is so strict under the proposed rule that only 30,000 to 90,000 physicians will likely qualify, according to CMS. Second, that the requirements of the rule would be disproportionally burdensome on small practices, though Slavitt said that would not be the case.

If you are a neurologist participating in an APM that does not meet the strict requirements to put you in an Advanced APM, but you are assessing cost and quality through your APM, how does that fit in? CMS proposes to reduce reporting burdens for participating in both MIPS and an APM by setting up a scoring standard for APMs in MIPS. Neurologists could potentially achieve APM-specific rewards as well as MIPS bonuses if they are part of a high performing APM.

Where do neurology APMs fit into these options? It’s too early to say for certain. The AAN intends to take the APMs through the process of the Physician-focused Payment Model Technical Advisory Committee (PTAC) established by MACRA to review payment models and advance them to CMS. The goal would be for the models to be designated as Advanced APMs. CMS is still developing that process and timeline, but in the meantime neurologists can seek to use these models with private payers. Short of being designated an “Advanced APM,” neurologists who participate in the AAN-developed APMs may also be able to earn credit under MIPS as explained above.

The AAN has sought member comment on the epilepsy and headache APMs and they are being revised based on input. The Academy also will reach out to payers and intends to pilot these models with practices to see if they are practical and can be easily implemented.

Anyone who is interested in piloting one of these APMs, or has questions about APMs, should contact macra@aan.com. More information is online at AAN.com/view/macra.

New Fall Conference Programs to Focus on MIPS, ACOs

Because it’s likely most neurologists will opt for the MIPS reimbursement plan, the AAN has created a new program—Practice Management IV: MIPS—to be offered at the Fall Conference in Las Vegas, on October 14 beginning at 3:00 p.m. Program directors will be David A. Evans, MBA, and Lyell K. Jones, MD, FAAN. Attendees can earn 1.5 credits of CME.

A new program also has been added for members interested in learning more about accountable care organizations (ACOs): Practice Management VI: Understanding ACO Options/Making Sure Your Voice Is Heard. Stuart Black, MD, and Robert Kropp, MD, will serve as program directors, and attendees can earn 1.5 CME credits. The course will be offered on October 15 at 10:00 a.m.

For more information, visit AAN.com/view/Fall.
2014 PQRS Experience Report: Highlights for Neurologists

The Centers for Medicare & Medicaid Services (CMS) has published its 2014 PQRS Experience Report and Appendix, and the AAN has extracted the data that pertains to neurologists. The report details payments to physicians in 2014 based on participation and measures data reported on in prior years in the Physician Quality Reporting System.

PQRS will become part of the new MIPS system under the Medicare Access and CHIP Reauthorization Act. Physician performance in 2017 will impact reimbursement received starting January 1, 2019. The AAN has supplied comments to the proposed MACRA regulation. Learn more about MACRA at AAN.com/view/macra.

Highlights for neurology in 2014 include:
- Median incentive paid to eligible neurologists was $234
- There were 16,831 neurologists considered eligible professionals in 2014; 11,496 (68.3%) of eligible neurologists participated in PQRS; 7,042 (80.9%) of neurologist participants received an incentive
- There were 5,840 (34.9%) eligible neurologists subject to the 2016 PQRS payment adjustment
- The majority of neurologists participated by reporting individual measures through claims reporting (1,788)
- Neurologists received 1.5% ($3,412,030) of the national total incentive amount paid out
- 16,703 eligible professionals (EPs) submitted using CECity
- Five EPs earned a Maintenance of Certification incentive with total incentive payments in 2014 of $2,159

Eligible professionals who were part of a practice that participated under the Group Practice Reporting Option (GPRO) and eligible professionals within accountable care organizations (ACOs) reporting under the Medicare Shared Savings Program and Pioneer ACO model are excluded from CMS’s findings.

### Top Five Measures for Neurology, 2014

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>#130: Documentation of Current Medications in the Medical Record</td>
</tr>
<tr>
<td>#2</td>
<td>#226: Preventative Care and Screening: Tobacco Use: Screening and Cessation Intervention</td>
</tr>
<tr>
<td>#3</td>
<td>#128: Preventative Care and Screening: Body Mass Index (BMI) Screening and Follow-up</td>
</tr>
<tr>
<td>#4</td>
<td>#111: Preventative Care and Screening: Pneumonia Vaccination for Patients 65 Years and Older</td>
</tr>
<tr>
<td>#5</td>
<td>#236: Controlling High Blood Pressure</td>
</tr>
</tbody>
</table>

### PQRS Incentives Paid Comparison, 2014

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Median</th>
<th>Total</th>
<th>% of National Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neurology</td>
<td>$0.04</td>
<td>$7,327</td>
<td>$381</td>
<td>$234</td>
<td>$3,412,030</td>
<td>1.5%</td>
</tr>
<tr>
<td>Total EPs (MD/DO)</td>
<td>$0.02</td>
<td>$91,143</td>
<td>$484</td>
<td>$251</td>
<td>$195,530,499</td>
<td>87.3%</td>
</tr>
</tbody>
</table>

### Number of EPs who participated in the PQRS (2009–2014)

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD/DO EPs participating</td>
<td>157,194</td>
<td>201,080</td>
<td>229,484</td>
<td>315,334</td>
<td>424,905</td>
<td>540,901</td>
</tr>
<tr>
<td>Percent of MD/DO EPs participating</td>
<td>25.3%</td>
<td>31.3%</td>
<td>34.5%</td>
<td>44.6%</td>
<td>41.2%</td>
<td>68.2%</td>
</tr>
<tr>
<td>Incentive eligible EPs (MD/DO)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>284,971</td>
<td>404,354</td>
</tr>
<tr>
<td>Percent of participating EPs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>67.1%</td>
<td>62.2%</td>
</tr>
<tr>
<td>Neurology EPs participating</td>
<td>1,580</td>
<td>5,295</td>
<td>3,450</td>
<td>6,016</td>
<td>8,706</td>
<td>11,496</td>
</tr>
<tr>
<td>Percent of neurology EPs planning</td>
<td>12.7%</td>
<td>34.1%</td>
<td>25.7%</td>
<td>41.3%</td>
<td>57.5%</td>
<td>68.3%</td>
</tr>
</tbody>
</table>

### 2014 Reporting Mechanism for Eligible Neurologists who participated in PQRS

<table>
<thead>
<tr>
<th>Reporting Mechanism</th>
<th>Count</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claims (Individual)</td>
<td>1,788</td>
<td>22.0%</td>
</tr>
<tr>
<td>Registry (Individual)</td>
<td>522</td>
<td>6.1%</td>
</tr>
<tr>
<td>Registry (Measures Groups)</td>
<td>617</td>
<td>7.3%</td>
</tr>
<tr>
<td>EHR</td>
<td>1,072</td>
<td>12.6%</td>
</tr>
<tr>
<td>QCDR</td>
<td>11</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

For more information, visit [CMS.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS](http://CMS.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS).
AAN Provides Coverage Policy Template for Clinical Exome Sequencing

In mid-2014, the AAN’s Payment Policy Subcommittee began to see an increase in the number of private payer policy review requests—and subsequent denials—on the topic of a new method of genetic testing.

Clinical exome sequencing (CES) is a new, state-of-the-art type of molecular diagnostic genetic testing that has the potential to rapidly and efficiently detect disease-causing genetic mutations within any gene in the human genome, and is therefore becoming widely used in clinical practice. However, payers have initially pushed back on coverage due to perceived high costs for the testing, confusion regarding the value of variants of unknown significance, and outdated concern over incomplete coverage of critical genes.

The Payment Policy Subcommittee took a proactive approach in creating a model policy that can be used by payers to help them make better informed decisions regarding their coverage of this testing. The AAN policy addresses: health benefits, current methods, appropriate use, challenges and limitations, variants of uncertain significance, indications for coverage, coding, and regulatory issues.

According to Brent L. Fogel, MD, PhD, who co-authored “Clinical Exome Sequencing in Neurologic Disease” describing the policy template, “Because it assesses all coding genes in an unbiased fashion, exome sequencing is extremely cost-effective with a high diagnostic yield in comparison to other genetic tests in current use. CES should be utilized as a routine diagnostic test in patients with heterogeneous neurologic phenotypes facing a broad genetic differential diagnosis. Among its advantages, CES can markedly improve time to diagnosis and eliminate futile and expensive escalating sequences of conventional neurodiagnostic tests.”

To learn more about CES and access the AAN’s coverage policy template to share with payers, read “Clinical Exome Sequencing in Neurologic Disease,” in the April 2016 print issue of Neurology® Clinical Practice, also published online ahead of print on March 21, 2016, at http://cp.neurology.org/content/6/2/164.full.pdf.
the ease of use and seamless integration with their existing electronic records systems.

Marcella Mwaisela, MD, a neurologist at Towson Neurology Associates in Towson, MD, shared her experiences using the Axon Registry in her two-neurologist practice. Her clinic has one secretary and an office manager, with no other ancillary staff. Yet, she has found participating in the Axon Registry to be an “easy and convenient way to meet the PQRS requirement.”

The Axon Registry currently offers 24 measures that neurologists can choose from to find nine measures for PQRS reporting. “We use the Axon epilepsy, headache, and Parkinson’s disease measures we would be using anyway, so we didn’t have to change anything. We have tried to use the measures that fit our practice and change our workflow as little as possible. Since we are such a small practice, we avoid measures that require us to use a rating (scoring) system since we don’t have the manpower to have patients sit down and fill out rating systems. That lessens the time we can spend with the patient.”

Her office uses Amazing Charts for its electronic medical records. “Our EMR is quite basic and allows us to enter all information as free text,” Mwaisela said. “We try to use keywords and put them in the right place when entering visits into the EMR. That way Axon can find our documentation. We will use the data for PQRS reporting only. Before participating in the Axon Registry, we had to enter data into spreadsheets and pay a fee to submit to PQRS.”

From a set-up standpoint, Mwaisela found it easy to integrate the Axon Registry into her office technology. “Installation only took an hour. Axon is running in the background and data is pulled from our EMR during the night. It’s never broken down, and we’ve never had any issues.”

The only significant change Mwaisela has experienced has been to her partner’s previous routine. “One of us had been dictating the notes and then scanning them into our EMR. Unfortunately, that scanned information doesn’t work with this system. You have to actually type in your notes. That has been our only change.”

Overall, Mwaisela is pleased with the Axon Registry. “I like the fact that it is still new, being developed. It has the potential in the future to be adapted, so if we ever needed to submit to commercial payers, it could be used for that as well.”

For more information about the Axon Registry visit AAN.com/view/Axon.
QUIETING MS Quietly*
for your patients with relapsing MS

* AUBAGIO® is effective across key measures of disease activity: sustained disability progression (14 mg only), annualized relapse rate, and MRI activity. Overall discontinuation rates due to adverse events were 12.5% with AUBAGIO 14 mg, 11.2% with AUBAGIO 7 mg, and 7.5% with placebo, and treatment discontinuation rates due to common adverse events were ≤3.3% in the pooled clinical trials.1,2

MS = multiple sclerosis.

INDICATION
AUBAGIO® (teriflunomide) is indicated for the treatment of patients with relapsing forms of multiple sclerosis.

IMPORTANT SAFETY INFORMATION
WARNING: HEPATOTOXICITY AND RISK OF TERATOGENICITY
Severe liver injury including fatal liver failure has been reported in patients treated with leflunomide, which is indicated for rheumatoid arthritis. A similar risk would be expected for teriflunomide because recommended doses of teriflunomide and leflunomide result in a similar range of plasma concentrations of teriflunomide. AUBAGIO is contraindicated in patients with severe hepatic impairment and in patients taking leflunomide. Concomitant use of AUBAGIO with other potentially hepatotoxic drugs may increase the risk of severe liver injury. Obtain transaminase and bilirubin levels within 6 months before initiation of AUBAGIO therapy. Monitor ALT levels at least monthly for 6 months after starting AUBAGIO. If drug-induced liver injury is suspected, discontinue AUBAGIO and start an accelerated elimination procedure with cholestyramine or charcoal. Patients with pre-existing liver disease may be at increased risk of developing elevated serum transaminases when taking AUBAGIO.

Based on animal data, AUBAGIO may cause major birth defects if used during pregnancy. Pregnancy must be excluded before starting AUBAGIO. AUBAGIO is contraindicated in pregnant women or women of childbearing potential who are not using reliable contraception. Pregnancy must be avoided during AUBAGIO treatment or prior to the completion of an accelerated elimination procedure after AUBAGIO treatment.

Please see additional Important Safety Information and Brief Summary of Full Prescribing Information, including boxed WARNING regarding hepatotoxicity and use in pregnancy, on the following pages.
AUBAGIO® (teriflunomide) efficacy was established in TEMSO and reinforced with TOWER and TOPIC. Phase III clinical trials

INDICATION
AUBAGIO® (teriflunomide) is indicated for the treatment of patients with relapsing forms of multiple sclerosis.

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WARNING: HEPATOTOXICITY AND RISK OF TERATOGENICITY
Severe liver injury including fatal liver failure has been reported in patients treated with leflunomide, which is indicated for rheumatoid arthritis. A similar risk would be expected for teriflunomide because recommended doses of teriflunomide and leflunomide result in a similar range of plasma concentrations of teriflunomide. AUBAGIO is contraindicated in patients with severe hepatic impairment and in patients taking leflunomide. Concomitant use of AUBAGIO with other potentially hepatotoxic drugs may increase the risk of severe liver injury. Obtain transaminase and bilirubin levels within 6 months before initiation of AUBAGIO therapy. Monitor ALT levels at least monthly for 6 months after starting AUBAGIO. If drug-induced liver injury is suspected, discontinue AUBAGIO and start an accelerated elimination procedure with cholestyramine or charcoal. Patients with pre-existing liver disease may be at increased risk of developing elevated serum transaminases when taking AUBAGIO. Based on animal data, AUBAGIO may cause major birth defects if used during pregnancy. Pregnancy must be excluded before starting AUBAGIO. AUBAGIO is contraindicated in pregnant women or women of childbearing potential who are not using reliable contraception. Pregnancy must be avoided during AUBAGIO treatment or prior to the completion of an accelerated elimination procedure after AUBAGIO treatment.

Warnings and Precautions
Patients with pre-existing acute or chronic liver disease, or those with serum ALT >2 times the upper limit of normal (ULN) before initiating treatment, should not normally be treated with AUBAGIO. In clinical trials, if ALT elevation was >3 times the ULN on 2 consecutive tests, patients discontinued AUBAGIO and underwent accelerated elimination. Consider additional monitoring if co-administering AUBAGIO with other potentially hepatotoxic drugs; monitor patients who develop symptoms suggestive of hepatic dysfunction (eg, unexplained nausea, vomiting, abdominal pain, fatigue, anorexia, or jaundice and/or dark urine). Before starting therapy, use of reliable contraception must be confirmed, and the patient counseled on risks to the fetus. Patients with delayed onset of menses or other reason to suspect pregnancy should immediately see their physician for pregnancy testing. Patients who become pregnant or wish to become pregnant should discontinue treatment, followed by accelerated elimination until plasma concentrations of <0.02 mcg/mL are verified, a level expected to pose minimal risk to the fetus. Women who become pregnant while taking AUBAGIO may enroll in the AUBAGIO pregnancy registry by calling 1-800-745-4447, option 2.

Teriflunomide is eliminated slowly from the plasma—it takes an average of 8 months, or up to 2 years, to reach plasma concentrations <0.02 mcg/mL. Elimination may be accelerated by administration of cholestyramine or charcoal, but this may cause disease activity to return in patients who were responding to AUBAGIO. Decreases in white blood cell counts, mainly of neutrophils and lymphocytes, and platelets have been

*AUBAGIO is effective across key measures of disease activity: sustained disability progression (14 mg only), annualized relapse rate, and MRI activity. Overall discontinuation rates due to adverse events were 12.5% with AUBAGIO 14 mg, 11.2% with AUBAGIO 7 mg, and 7.5% with placebo, and treatment discontinuation rates due to common adverse events were ≤3.3% in the pooled clinical trials.1,2

*
A proven approach to quieting* relapsing MS

2 trials impacting disability progression
- AUBAGIO 14 mg is the only oral RMS therapy with 2 pivotal Phase III trials that show a significant reduction in the risk of sustained disability accumulation.1,2,4
- AUBAGIO 7 mg did not demonstrate a significant reduction in risk of sustained disability progression in either trial.1
- Sustained disability progression was defined as at least a 1-point increase from baseline Expanded Disability Status Scale (EDSS) score ≤5.5 (or at least a 0.5-point increase for those with a baseline EDSS score >5.5) sustained for at least 12 weeks.1

1 daily tablet
- AUBAGIO is one tablet, once a day.1
- Health care professionals should run certain tests before prescribing AUBAGIO and should monitor patient liver enzyme levels monthly for the first 6 months.1

Adverse Reactions: The most frequent adverse reactions (≥10% and ≥2% greater than placebo) with AUBAGIO 14 mg and 14 mg and placebo, respectively, were headache (18% and 16% vs 15%), ALT increased (13% and 15% vs 9%), diarrhea (13% and 14% vs 8%), alopecia (10% and 13% vs 5%), and nausea (8% and 11% vs 7%).

Drug Interactions: Monitor patients when teriflunomide is coadministered with warfarin, or with drugs metabolized by CYP1A2, CYP2C8, substrates of OAT3 transporters, substrates of BCRP, or OATP1B1/1B3 transporters.

Use in Specific Populations: AUBAGIO is detected in human semen. To minimize any possible fetal risk, men not wishing to father a child and their female partners should use reliable contraception. Men wishing to father a child should discontinue therapy and undergo accelerated elimination, with verification of plasma concentrations <0.02 mcg/mL. Nursing mothers should not use AUBAGIO.

Please see Brief Summary of Full Prescribing Information, including boxed WARNING regarding hepatotoxicity and use in pregnancy, on the following pages.

TEMSO: A double-blind, placebo-controlled trial in patients with relapsing forms of MS (N=1088). Patients were randomized to receive AUBAGIO 14 mg (n=359), AUBAGIO 7 mg (n=366), or placebo (n=363) once daily for 108 weeks.1

TOWER: A double-blind, placebo-controlled trial in patients with relapsing forms of MS (N=1169). Patients were randomized to receive AUBAGIO 14 mg (n=372), AUBAGIO 7 mg (n=408), or placebo (n=389) once daily with results for up to 40 months of treatment.1

TOPIC: A double-blind, placebo-controlled clinical trial in patients with relapsing MS (N=618). Patients were randomized to receive AUBAGIO 14 mg (n=216), AUBAGIO 7 mg (n=205), or placebo (n=197) once daily for 108 weeks. Patients had a first clinical event consistent with acute demyelination occurring within 90 days of randomization with 2 or more T2 lesions at least 3 mm in diameter characteristic of MS.1

AUBAGIO 14 mg is the only oral RMS therapy with 2 pivotal Phase III trials that show a significant reduction in the risk of sustained disability accumulation.1,2,4 AUBAGIO 7 mg did not demonstrate a significant reduction in risk of sustained disability progression in either trial.1 Sustained disability progression was defined as at least a 1-point increase from baseline Expanded Disability Status Scale (EDSS) score ≤5.5 (or at least a 0.5-point increase for those with a baseline EDSS score >5.5) sustained for at least 12 weeks.1

Reported with AUBAGIO. Obtain a complete blood cell count within 6 months before starting treatment, with further monitoring based on signs and symptoms of bone marrow suppression. AUBAGIO is not recommended for patients with severe immunodeficiency, bone marrow disease, or severe uncontrolled infections. Tuberculosis (TB) has been observed in clinical studies of AUBAGIO. Before starting treatment, screen patients for latent TB infection with a tuberculin test. Treatment in patients with acute or chronic infections should not be started until the infection(s) is resolved. Administration of live vaccines is not recommended. The risk of malignancy, particularly lymphoproliferative disorders, or infection may be increased with the use of some medications with immunosuppressive potential, including teriflunomide. Peripheral neuropathy, including polyneuropathy and mononeuropathy, has been reported with AUBAGIO. Age >60 years, concomitant neurotoxic medications, and diabetes may increase the risk. If peripheral neuropathy is suspected, consider discontinuing treatment and performing accelerated elimination.

Interstitial lung disease and rare cases of Stevens-Johnson syndrome and toxic epidermal necrolysis have been reported with leflunomide; a similar risk would be expected for teriflunomide. If a severe skin reaction develops with AUBAGIO, stop treatment and use accelerated elimination. Blood pressure increases and hypertension have occurred with AUBAGIO. Measure blood pressure at treatment initiation and manage any elevations during treatment.
CUSTOMIZED SUPPORT FROM THE START

**AUBAGIO® (teriflunomide) and MS One to One® may help your patients manage their RMS**

- Getting started: the AUBAGIO Start form is both a prescription for AUBAGIO and enrollment for support offered by MS One to One

AUBAGIO is effective across key measures of disease activity: sustained disability progression (14 mg only), annualized relapse rate, and MRI activity. Overall discontinuation rates due to adverse events were 12.5% with AUBAGIO 14 mg, 11.2% with AUBAGIO 7 mg, and 7.5% with placebo, and treatment discontinuation rates due to common adverse events were ≤3.3% in the pooled clinical trials.1,2

RMS=relapsing forms of MS.

Please see Important Safety Information on previous pages and Brief Summary of Full Prescribing Information, including **boxed WARNING** regarding hepatotoxicity and use in pregnancy, on the following pages.

**WARNING: HEPATOTOXICITY AND RISK OF TERATOGENICITY**

**Hepatotoxicity**

Severe liver injury including fatal liver failure has been reported in patients treated with leflunomide, which is indicated for rheumatoid arthritis. A similar risk would be expected for teriflunomide because recommended doses of teriflunomide and leflunomide result in a similar range of plasma concentrations of teriflunomide. Concomitant use of AUBAGIO with other potentially hepatotoxic drugs may increase the risk of hepatic injury. Obtain transaminase and bilirubin levels within 6 months before initiation of AUBAGIO therapy. Monitor ALT levels at least monthly for six months after starting AUBAGIO [see Warnings and Precautions (5.1)]. If drug induced liver injury is suspected, discontinue AUBAGIO and start an accelerated elimination procedure with cholestyramine or charcoal [see Warnings and Precautions (5.3)]. AUBAGIO is contraindicated in patients with severe hepatic impairment [see Contraindications (4.1)]. Patients with pre-existing liver disease may be at increased risk of developing elevated serum transaminases when taking AUBAGIO.

**Risk of Teratogenicity**

Based on animal data, AUBAGIO may cause major birth defects if used during pregnancy. Pregnancy must be excluded before starting AUBAGIO. AUBAGIO is contraindicated in pregnant women or women of childbearing potential who are not using reliable contraception. Pregnancy should be avoided during AUBAGIO treatment and for at least 1 month after discontinuation of AUBAGIO therapy. Monitor ALT levels at least monthly for six months after starting AUBAGIO [see Warnings and Precautions (5.1)]. Obtain a complete blood cell count (CBC) within 6 months before the initiation of treatment with AUBAGIO. Further monitoring should be based on signs and symptoms of infection [see Warnings and Precautions (5.4)]. Prior to initiating AUBAGIO, screen patients for latent tuberculosis infection with a tuberculin skin test or blood test for mycobacterium tuberculosis infection [see Warnings and Precautions (5.4)]. Check blood pressure before start of AUBAGIO treatment and periodically thereafter [see Warnings and Precautions (5.7)].

**CONTRAINDICATIONS**

4.1. **Severe Hepatic Impairment**

Patients with severe hepatic impairment [see Warnings and Precautions (5.1)].

4.2. **Patients Who are Pregnant or Women of Childbearing Potential Not Using Reliable Contraception**

AUBAGIO may cause fetal harm when administered to a pregnant woman. In animal studies, teriflunomide has been shown to be selectively teratogenic and embryolethal in multiple species when administered during pregnancy at doses less than those used clinically. Nonclinical studies indicate further that the intended pharmacologic action of the drug is involved in the mechanism of developmental toxicity [see Use in Specific Populations (8.1)].

AUBAGIO is contraindicated in women who are pregnant or women of childbearing potential not using reliable contraception. If pregnancy does occur during treatment, the drug should be immediately discontinued and an accelerated elimination procedure should be initiated [see Warnings and Precautions (5.3)]. Under these conditions, the patient should be referred to an obstetrician/gynecologist, preferably experienced in reproductive toxicity, for further evaluation and counseling [see Warnings and Precautions (5.3) and Use in Specific Populations (8.1)].

4.3. **Current treatment with leflunomide**

Co-administration of teriflunomide with leflunomide is contraindicated.

**WARNINGS AND PRECAUTIONS**

5.1. **Hepatic Test Abnormalities**

Severe liver injury including fatal liver failure and dysfunction has been reported in some patients treated with leflunomide, which is indicated for rheumatoid arthritis. A similar risk would be expected for teriflunomide because recommended doses of teriflunomide and leflunomide result in a similar range of plasma concentrations of teriflunomide. Patients with pre-existing liver disease may be at increased risk of developing elevated serum transaminases when taking AUBAGIO. Patients with pre-existing acute or chronic liver disease, or those with serum alanine aminotransferase (ALT) greater than two times the upper limit of normal (ULN) before initiating treatment, should not normally be treated with AUBAGIO. AUBAGIO is contraindicated in patients with severe hepatic impairment [see Contraindications (4.1)].

In placebo-controlled trials, ALT greater than three times the ULN occurred in 61/1045 (5.8%) and 62/1002 (6.2%) of patients receiving AUBAGIO 7 mg and 14 mg, respectively, and 38/997 (3.8%) of patients receiving placebo, during the treatment period. These elevations occurred mostly within the first year of treatment. Half of the cases returned to normal without drug discontinuation. In clinical trials, if ALT elevation was greater than three times the ULN on two consecutive tests, AUBAGIO was discontinued and patients underwent an accelerated elimination procedure [see Warnings and Precautions (5.3)]. Of the patients who underwent discontinuation and accelerated elimination in controlled trials, half returned to normal or near normal values within 2 months. One patient in the controlled trials developed ALT 32 times the ULN and jaundice 5 months after initiation of AUBAGIO 14 mg treatment. The patient was hospitalized for 5 weeks and recovered after plasmapheresis and cholestyramine accelerated elimination procedure. AUBAGIO-induced liver injury in this patient could not be ruled out.

Obtain serum transaminase and bilirubin levels within 6 months before initiation of AUBAGIO therapy. Monitor ALT levels at least monthly for six months after starting AUBAGIO. AUBAGIO is contraindicated in patients with severe hepatic impairment [see Contraindications (4.1)]. Patients with pre-existing liver disease may be at increased risk of developing elevated serum transaminases when taking AUBAGIO.

**Use in Women of Childbearing Potential**

There are no adequate and well-controlled studies evaluating AUBAGIO in pregnant women. However, based on animal studies, teriflunomide may increase the risk of teratogenic effects or fetal death when administered to a pregnant woman [see Contraindications (4.2)].

Women of childbearing potential must not be started on AUBAGIO until pregnancy is excluded and it has been confirmed that they are using reliable contraception. Before starting treatment with AUBAGIO, patients must be fully counseled on the potential for serious risk to the fetus. The patient must be advised that if there is any delay in onset of menses or any other reason to suspect pregnancy, they must notify the physician immediately for pregnancy testing and, if positive, to discontinue the drug. The physician and patient must discuss the risk to the fetus. It is possible that rapidly lowering the plasma concentration of teriflunomide by instituting an accelerated elimination procedure may decrease the risk to the fetus from AUBAGIO [see Warnings and Precautions (5.3)].

Upon discontinuing AUBAGIO, it is recommended that all women of childbearing potential undergo an accelerated elimination procedure. Women receiving AUBAGIO treatment who wish to become pregnant must discontinue AUBAGIO and undergo an accelerated elimination procedure. Plasma concentrations of teriflunomide plasma concentrations less than 0.02 mg/L (0.02 mcg/mL) are expected to have minimal risk [see Contraindications (4.2), Warnings and Precautions (5.3) and Use in Specific Populations (8.1)].

5.3. **Procedure for Accelerated Elimination of Teriflunomide**

Teriflunomide is eliminated slowly from the plasma. Without an accelerated elimination procedure, it takes on average 2 years to reach plasma concentrations less than 0.02 mg/L (0.02 mcg/mL). Human plasma concentrations of teriflunomide less than 0.02 mg/L (0.02 mcg/mL) are expected to have minimal risk [see Contraindications (4.2), Warnings and Precautions (5.3) and Use in Specific Populations (8.1)].

5.4. **Bone Marrow Erophresis/Immunosuppression Potential/Infections**

White Blood Cell (WBC) count decrease

A mean decrease in white blood cell (WBC) count of approximately 15% (mainly neutrophils and lymphocytes) and in platelet count of approximately 10% was observed in placebo-controlled trials, neutrophils less than 1.5×10⁹/L was observed in 12% and 18% of patients receiving AUBAGIO 7 mg and 14 mg, respectively, compared with 7% of patients receiving placebo; lymphocyte count <0.8×10⁹/L was observed in 10% and 12% of patients receiving AUBAGIO 7 mg and 14 mg, respectively. A mean decrease in WBC count of approximately 15% (mainly neutrophils and lymphocytes) and in platelet count of approximately 10% was observed in placebo-controlled trials, neutrophils less than 1.5×10⁹/L was observed in 12% and 18% of patients receiving AUBAGIO 7 mg and 14 mg, respectively, compared with 7% of patients receiving placebo; lymphocyte count <0.8×10⁹/L was observed in 10% and 12% of patients receiving AUBAGIO 7 mg and 14 mg, respectively.
receiving AUBAGIO 7 mg and 14 mg, respectively, compared with 0.4% receiving placebo (4 patients). Treatment was discontinued due to peripheral neuropathy in 3 patients taking AUBAGIO than in patients taking placebo. The incidence of infections was observed with AUBAGIO 7 mg (2.2%), or 14 mg (2.7%) compared to placebo (2.2%). However, one fatal case of kieselsiella pneumoniae sepsis occurred in a patient taking AUBAGIO 14 mg for 1.7 years. Fatal infections have been reported in the post-marketing setting in patients receiving leflunomide, especially Pneumocystis jiroveci pneumonia and aspergillosis. Most of the reports were confounded by concomitant immunosuppressant therapy and/or comorbid illness which, in addition to rheumatoid disease, may predispose patients to infection. In clinical studies with AUBAGIO, cytomegalovirus hepatitis reactivation has been observed.

In clinical studies with AUBAGIO, cases of tuberculosis have been observed. Prior to initiating AUBAGIO, screen patients for latent tuberculosis infection with a tuberculin skin test or a blood test for mycobacterium tuberculosis. AUBAGIO has not been studied in patients with a positive tuberculosis screen, and the safety of AUBAGIO in individuals with latent tuberculosis infection is unknown. For patients testing positive in tuberculosis screening, treat by standard medical practice prior to therapy with AUBAGIO.

Vaccination
No clinical data are available on the efficacy and safety of live vaccinations in patients taking AUBAGIO. Vaccination with live vaccines is not recommended. The long half-life of AUBAGIO should be considered when contemplating administration of a live vaccine after stopping AUBAGIO.

Malignancy
The risk of malignancy, particularly lymphoproliferative disorders, is increased with the use of some immunosuppressive medications. There is a potential for immunosuppression with AUBAGIO. No apparent increase in the incidence of malignancies and lymphoproliferative disorders was reported in the AUBAGIO clinical trials, but larger and longer-term studies would be needed to determine whether there is an increased risk of malignancy or lymphoproliferative disorders with AUBAGIO.

5.5 Peripheral Neuropathy
In placebo-controlled studies, peripheral neuropathy, including both polynowneupathy and mononeuropathy (e.g., carpal tunnel syndrome), occurred more frequently in patients taking AUBAGIO than in patients taking placebo. The incidence of peripheral neuropathy confirmed by nerve conduction studies was 3.1% (9 patients and 5 patients receiving AUBAGIO 7 mg and 14 mg, respectively), compared with 0.4% receiving placebo (4 patients). Treatment was discontinued in 0.7% (6 patients) with confirmed peripheral neuropathy (5 patients receiving AUBAGIO 7 mg and 5 patients receiving AUBAGIO 14 mg). Five of these patients recovered following treatment discontinuation. Not all cases of peripheral neuropathy resolved with continued treatment. Peripheral neuropathy also occurred in patients receiving leflunomide. Age older than 60 years, concomitant neurotoxic medications, and diabetes may increase the risk for peripheral neuropathy. If a patient taking AUBAGIO develops symptoms consistent with peripheral neuropathy, such as bilateral numbness or tingling of hands or feet, consider discontinuing AUBAGIO therapy and performing an accelerated elimination procedure (see Warnings and Precautions (5.3)).

6.1 Skin Reactions
Rare cases of Stevens-Johnson syndrome and toxic epidermal necrolysis have been reported in patients with rheumatoid arthritis receiving leflunomide. A similar risk was observed in patients receiving AUBAGIO (see Clinical Pharmacology (12.3) in the full prescribing information). If a patient taking AUBAGIO develops any of these conditions, stop AUBAGIO therapy and perform an accelerated elimination procedure (see Warnings and Precautions (5.3)).

5.7 Increased Blood Pressure
In placebo-controlled studies, the mean change from baseline to the end of study in systolic blood pressure was +2.3 mmHg and +2.7 mmHg for AUBAGIO 7 mg and 14 mg, respectively, and -0.6 mmHg for placebo. The change from baseline in diastolic blood pressure was +1.4 mmHg and +1.9 mmHg for AUBAGIO 7 mg and 14 mg, respectively, and -0.3 mmHg for placebo. Hypertension was an adverse reaction in 3.1% and 4.3% of patients treated with 7 mg or 14 mg of AUBAGIO compared with 1.8% for placebo. Check blood pressure before start of AUBAGIO treatment. Elevation of blood pressure should be appropriately managed during treatment with AUBAGIO.

5.8 Respiratory Effects
Interstitial lung disease and worsening of pre-existing interstitial lung disease have been reported during treatment with leflunomide. A similar risk would be expected for AUBAGIO (see Clinical Pharmacology (12.3) in the full prescribing information).

6.5.2 Adverse Reactions in Pooled Placebo-Controlled Studies in Patients with Relapsing Forms of Multiple Sclerosis

<table>
<thead>
<tr>
<th>Adverse Reaction</th>
<th>AUBAGIO 7 mg (N=1045)</th>
<th>AUBAGIO 14 mg (N=1002)</th>
<th>Placebo (N=997)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headache</td>
<td>18%</td>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>Increase in Alanineaminotransferase</td>
<td>13%</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>13%</td>
<td>14%</td>
<td>8%</td>
</tr>
<tr>
<td>Alopecia</td>
<td>10%</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Nausea</td>
<td>8%</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>Paresthesia</td>
<td>8%</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>Arthralgia</td>
<td>8%</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Neutropenia</td>
<td>4%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>3%</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Cardiovascular deaths
Four cardiovascular deaths, including three sudden deaths, and one myocardial infarction in a patient with a history of hyperlipidemia and hypertension were reported in the post-marketing database. These cardiovascular deaths occurred during uncontrolled extension studies, one to nine years after initiation of treatment. A relationship between AUBAGIO and cardiovascular death has not been established.

Acute Renal Failure
In placebo-controlled studies, creatinine values increased more than 100% over baseline in 8/1045 (0.8%) patients in the 7 mg AUBAGIO group and 6/1002 (0.6%) patients in the 14 mg AUBAGIO group versus 4/997 (0.4%) patients in the placebo group. These elevations were transient. Some elevations were accompanied by hyperkalemia. AUBAGIO may cause acute uric acid nephropathy with transient acute renal failure because AUBAGIO increases renal uric acid clearance.

5.9 Concomitant Use with Immunosuppressive or Immunomodulating Therapies
Co-administration with antineoplastic, or immunosuppressive therapies used for treatment of multiple sclerosis has not been evaluated. Safety studies in which AUBAGIO was concomitantly administered with other immune modulating therapies for up to one year (interferon beta, glatiramer acetate) did not reveal any specific safety concerns. The long term safety of these combinations in the treatment of multiple sclerosis has not been established.

In any situation in which the decision is made to switch from AUBAGIO to another agent with a known potential for hematologic suppression, it would be prudent to monitor for hematologic toxicity, because there will be overlap of systemic exposure to both compounds. Use of an accelerated elimination procedure may decrease this risk, but may also potentially result in return of disease activity if the patient had been responding to AUBAGIO treatment (see Warnings and Precautions (5.3)).

6.5 Adverse Reactions
The following serious adverse reactions are described elsewhere in the prescribing information:
- Hepatotoxicity (see Contraindications (4.1) and Warnings and Precautions (5.4))
- Bone Marrow Effects/Immunosuppression Potential/Infections (see Warnings and Precautions (5.4))
- Peripheral Neuropathy (see Warnings and Precautions (5.5))
- Skin Reactions (see Warnings and Precautions (5.6))
- Increased Blood Pressure (see Warnings and Precautions (5.7))
- Respiratory Effects (see Warnings and Precautions (5.8))

6.1 Clinical Trials Experience
Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in clinical practice.

A total of 2047 patients receiving AUBAGIO (7 mg or 14 mg once daily) constituted the safety population in the pooled analysis of placebo controlled studies in patients with relapsing forms of multiple sclerosis; of these, 71% were female. The average age was 37 years.

Table 1 lists adverse reactions in placebo-controlled trials with rates that were at least 2% for AUBAGIO patients and also at least 2% above the rate in placebo patients. The most common were headache, an increase in ALT, diarrhea, alopecia, and nausea. The adverse reaction most commonly associated with discontinuation was an increase in ALT (3.3%, 2.6%, and 2.3% of all patients in the AUBAGIO 7 mg, AUBAGIO 14 mg, and placebo treatment arms, respectively).

AUBAGIO® (teriflunomide) tablets, for oral use
patients; 4% of AUBAGIO-treated patients had hypophosphatemia with serum phosphorus levels at least 0.3 mmol/L but less than 0.6 mmol/L, compared to 0.8% of placebo-treated patients. No patient in any treatment group had a serum phosphorus below 0.3 mmol/L.

7 DRUG INTERACTIONS

Effect of AUBAGIO on CYP2C8 substrates

Teriflunomide is an inhibitor of CYP2C8 in vivo. In patients taking AUBAGIO, exposure of drugs metabolized by CYP2C8 (e.g., paclitaxel, pioglitazone, repaglinide, rosiglitazone) may be increased. Monitor these patients and adjust the dose of the concomitant drug(s) metabolized by CYP2C8 as required [see Clinical Pharmacology (12.3) in the full prescribing information].

Effect of AUBAGIO on warfarin

Coadministration of AUBAGIO with warfarin requires close monitoring of the international normalized ratio (INR) because AUBAGIO may decrease peak INR by approximately 25%.

Effect of AUBAGIO on oral contraceptives

AUBAGIO may increase the systemic exposures of ethinylestradiol and levonorgestrel. Consideration should be given to the type or dose of contraceptives used in combination with AUBAGIO [see Clinical Pharmacology (12.3) in the full prescribing information].

Effect of AUBAGIO on CYP1A2 substrates

Teriflunomide may be a weak inducer of CYP1A2 in vivo. In patients taking AUBAGIO, exposure of drugs metabolized by CYP1A2 (e.g., aloestron, duloxetine, theophylline) may be reduced. Monitor these patients and adjust the dose of the concomitant drug(s) metabolized by CYP1A2 as required [see Clinical Pharmacology (12.3) in the full prescribing information].

Effect of AUBAGIO on organic anion transporter 3 (OAT3) substrates

Teriflunomide inhibits the activity of OAT3 in vivo. In patients taking AUBAGIO, exposure of drugs which are OAT3 substrates (e.g., cefaclor, cimetidine, ciprofloxacin, penicillin G, ketoprofen, furosemide, methotrexate, zidovudine) may be increased. Monitor these patients and adjust the dose of the concomitant drug(s) which are OAT3 substrates as required [see Clinical Pharmacology (12.3) in the full prescribing information].

Effect of AUBAGIO on BCRP and organic anion transporting polypeptide B1 and B3 (OATP1B1/1B3) substrates

Teriflunomide inhibits the activity of BCRP and OATP1B1/1B3 in vivo. For a patient taking AUBAGIO, the dose of rosuvastatin should not exceed 10 mg once daily. For other substrates of BCRP (e.g., mitoxantrone) and drugs in the OATP family (e.g., methotrexate, rifampin), especially HMG-Co reductase inhibitors (e.g., atorvastatin, nateglinide, pravastatin, repaglinide, and simvastatin), consider reducing the dose of these drugs and monitor patients closely for signs and symptoms of increased exposure to the drugs while patients are taking AUBAGIO [see Clinical Pharmacology (12.3) in the full prescribing information].

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Pregnancy Category X [see Contraindications (4.2) and Warnings and Precautions (5.2)].

When teriflunomide (oral doses of 1, 3, or 10 mg/kg/day) was administered to pregnant rats throughout the period of organogenesis, high incidences of fetal malformation (primarily craniofacial, and axial and appendicular skeletal defects) and embryofetal death were observed at doses not associated with maternal toxicity. Adverse effects on embryofetal development were observed following dosing at various stages throughout organogenesis. Maternal plasma exposure at the no-effect level (1.0 mg/kg/day) for embryofetal developmental toxicity in rats was less than that in humans at the maximum recommended human dose (MRHD, 14 mg/day).

Administration of teriflunomide (oral doses of 1, 3.5, or 12 mg/kg/day) to pregnant rabbits throughout organogenesis resulted in high incidences of fetal malformation (primarily craniofacial, and axial and appendicular skeletal defects) and embryofetal death at doses associated with minimal maternal toxicity. Maternal plasma exposure at the no-effect dose (1.0 mg/kg/day) for embryofetal developmental toxicity in rabbits was less than that in humans at the MRHD.

In studies in which teriflunomide (oral doses of 0.05, 0.1, 0.3, 0.6, or 1.0 mg/kg/day) was administered to rats during gestation and lactation, decreased growth, eye and skin abnormalities, and high incidences of malformation (limb defects) and postnatal death were observed in the offspring at doses not associated with maternal toxicity. Maternal plasma exposure at the no-effect dose for pre- and postnatal developmental toxicity in rats (0.10 mg/kg/day) was less than that at the MRHD. In animal reproduction studies of leflunomide, embryolethality and teratogenic effects were observed in pregnant rat and rabbit at or below clinically relevant plasma teriflunomide exposures (AUC). In published reproduction studies in pregnant mice, leflunomide was embryolethal and increased the incidence of malformations (craniofacial, axial skeletal, heart, and great vessel). Supplementation with exogenous uridine reduced the teratogenic effects in pregnant mice, suggesting that the mode of action (inhibition of mitochondrial enzyme dihydroorotate dehydrogenase) is the same for therapeutic efficacy and developmental toxicity. At recommended doses in humans, teriflunomide and leflunomide result in a similar range of plasma concentrations of teriflunomide.

Use in Males

AUBAGIO is detected in human semen. Animal studies to specifically evaluate the risk of male-mediated fetal toxicity have not been conducted. To minimize any possible risk, men not wishing to father a child and their female partners should use reliable contraception. Men wishing to father a child should discontinue use of AUBAGIO and undergo an accelerated elimination procedure to decrease the plasma concentration of teriflunomide to less than 0.02 mg/L (0.02 mcg/ml) [see Warnings and Precautions (5.3)].

Pregnancy Registry

Although AUBAGIO is contraindicated in pregnancy, a pregnancy registry has been established to monitor fetal outcomes of pregnant women exposed to AUBAGIO. Physicians are encouraged to enroll pregnant women in the AUBAGIO pregnancy registry, or pregnant women may enroll themselves, by calling 1-800-745-4447, option 2.

8.3 Nursing Mothers

Teriflunomide was detected in rat milk following a single oral dose of teriflunomide. It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk and because of the potential for serious adverse reactions in nursing infants from AUBAGIO a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

8.4 Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

8.5 Geriatric Use

Clinical studies of AUBAGIO did not include patients over 65 years old.

8.6 Hepatic Impairment

No dosage adjustment is necessary for patients with mild and moderate hepatic impairment. The pharmacokinetics of teriflunomide in severe hepatic impairment have not been evaluated. AUBAGIO is contraindicated in patients with severe hepatic impairment [see Contraindications (4.1) Warnings and Precautions (5.1), and Clinical Pharmacology (12.3) in the full prescribing information].

8.7 Renal Impairment

No dosage adjustment is necessary for patients with mild, moderate, and severe renal impairment [see Clinical Pharmacology (12.3) in the full prescribing information].

10 OVERDOSAGE

There is no experience regarding teriflunomide overdose or intoxication in humans. Teriflunomide 70 mg daily up to 14 days was well tolerated by healthy subjects. In the event of clinically significant overdose or toxicity, cholestyramine or activated charcoal is recommended to accelerate elimination [see Warnings and Precautions (5.3)].

Genzyme Corporation
500 Kendall Street
Cambridge, MA 02142
A SANOFI COMPANY

October 2014a

TER-BPLR-SA-OCT14 Revised: October 2014a
Research & Awards

New AAN Research Program Demonstrates Greater Commitment to Neurology  Continued from cover

- **$450,000 Career Development Award**
  This prestigious three-year award provides $150,000 per year for a total of $450,000. Eligible applicants will have completed residency within five to 10 years of the July 1, 2017, award start date.

- **$130,000 Neurology Research Training Award**
  This premier two-year award provides $65,000 over two years for a total of $130,000. The award is designed for basic and translational research proposals in neurology. Eligible applicants will have completed residency no more than five years prior to the July 1, 2017, award start date.

### Additional Awards

The application deadline for the following awards is October 1, 2016 (unless noted).

- **Clinical Research Training Award** (formerly Fellowship) sponsored by the American Academy of Neurology
- **Practice Research Training Award** (formerly Fellowship) sponsored by the American Academy of Neurology
- **Clinician-Scientist Development Three-Year Award in ALS Research** cosponsored by the American Academy of Neurology, the American Brain Foundation, and the ALS Association
- **Clinical Research Training Fellowship in ALS Research** cosponsored by the American Academy of Neurology, the American Brain Foundation, and the ALS Association
- **Robert Katzman Clinical Research Training Fellowship in Alzheimer’s Research** cosponsored by the American Academy of Neurology, the American Brain Foundation, and the Alzheimer’s Association
- **Research Training Fellowship in Ataxia Research** cosponsored by the American Academy of Neurology, the American Brain Foundation, and the National Ataxia Foundation
- **Susan S. Spencer Clinical Research Training Fellowship** cosponsored by the American Academy of Neurology, the American Brain Foundation, the American Epilepsy Society, and the Epilepsy Foundation

- **Clinical Research Training Fellowship in Epilepsy** program funding by Lundbeck
- **Clinician-Scientist Development Award in Multiple Sclerosis** cosponsored by the American Academy of Neurology, the American Brain Foundation, and the National Multiple Sclerosis Society (application deadline August 10, 2016)
- **NEW! Clinical Research Training Fellowship in Muscular Dystrophy** cosponsored by the American Academy of Neurology, the American Brain Foundation, and the Muscular Dystrophy Association
- **Clinical Research Training Fellowship in Parkinson’s Disease** program funding by Lundbeck
- **Clinical Research Training Fellowship in Parkinson’s Disease** cosponsored by the American Academy of Neurology, the American Brain Foundation, and the Parkinson’s Disease Foundation
- **Lawrence M. Brass, MD, Stroke Research Award** cosponsored by the American Academy of Neurology, the American Brain Foundation, and the American Heart Association/American Stroke Association (application deadline July 26, 2016)

For more information and to apply, visit AAN.com/view/ResearchProgram.
AAN Publishes Practice Advisory on Etanercept for Poststroke Disability

The AAN published “Practice Advisory: Etanercept for Poststroke Disability” in the online issue of *Neurology*® on June 6, 2016, and in the June 7 print issue.

The advisory authors found that there is insufficient evidence to determine whether etanercept is safe or effective for treatment of poststroke disability. The advisory recommends that clinicians should counsel patients with stroke that there is insufficient evidence to determine its effectiveness. Furthermore, they should make patients aware that the use of etanercept is costly and is potentially associated with serious adverse effects when used in other medical conditions.

“Although two case series demonstrated improvements on a number of outcome measures, there is a high risk of bias based on the open-label design, absence of a control group, and lack of blinded measurements,” said Gary S. Gronseth, MD, FAAN, lead author of the practice advisory. “The risk of bias of these studies is so high that the study results do not increase the likelihood that the therapy is effective. Further research is needed on the effects of etanercept on poststroke disability.”

Read the practice advisory and access summaries for clinicians and patients on AAN.com. For more information, contact Julie Cox at jcox@aan.com or (612) 928-6069.

Guidelines

Capitol Hill Report

Capitol Hill Report presents regular updates on legislative and regulatory actions and how the Academy ensures that the voice of neurology is heard on Capitol Hill. It is emailed to US members twice monthly and is posted at AAN.com/view/HillReport. Below are some recent highlights.

Kenneth J. Gaines, MD, FAAN, of Nashville, TN, was the latest AAN member to join advocacy staff Derek Brandt and Mike Amery in the DC office for the AAN “Lobbyist for a Day” program. Dr. Gaines has a great background in telemedicine for stroke, which conveniently happens to be a top issue right now for the AAN with our efforts to pass the Furthering Access to Stroke Telemedicine (FAST) Act. Dr. Gaines recently conducted a demonstration project funded through a Center for Medicare and Medicaid Innovations (CMMI) grant that aims to redesign stroke care delivery through a one-year bundled payment starting upon the onset of an acute stroke. His project has produced improved outcomes and lowered costs of care in large part due to the use of a telemedicine-enabled home care delivery of post stroke care in an integrated practice unit design.

Dr. Gaines shared his results with several members of Congress, including two key members of the important House Energy & Commerce Committee, ranking member Frank Pallone (D-NJ), and Health Subcommittee Vice-Chair Brett Guthrie (R-KY). He also had lunch and spoke with nine members of the California congressional delegation and visited with numerous offices of the Tennessee Republican congressional delegation including those of Sens. Lamar Alexander and Bob Corker, and Reps. Diane Black, Marsha Blackburn, and Phil Roe.

We thank Dr. Gaines for spending some time and for sharing his expertise with us and policy makers on Capitol Hill.

Public Policy
New NeuroPI Module on Intracerebral Hemorrhage Now Available, Free to Members

A new edition of the AAN’s performance improvement CME program is now available, and free to all AAN members. NeuroPI: Intracerebral Hemorrhage is designed to help participants:

- Earn 20 CME credits
- Meet the MOC Part IV Clinical PIP requirement
- Address the core competencies of interpersonal skills and communications, medical knowledge, patient care, practice-based learning, and improvement and professionalism
- Assess and document the severity of hemorrhage using the ICH score
- Identify how to screen and evaluate for coagulopathy
- Address the need to monitor blood pressure and screen for dysphagia
- Consider the use of prophylactic therapy to prevent deep venous thrombosis
- Review access and referral for multidisciplinary rehabilitation

Get started for free at AAN.com/view/NeuroPI.

Listen to Experts Discuss Parkinson, Dystonia, Chorea, Other Movement Disorders

Get a refresher on movement disorders during your commute or workout with the latest in the Continuum® Audio series. The series will cover topics such as management of neuropsychiatric issues in Parkinson disease, diagnostic approach to atypical Parkinsonian syndromes, managing patients with ataxia, and the ethics of preclinical dopamine transporter imaging.

“This series of interviews with authors from the Continuum issue on Movement Disorders will provide listeners with insights from the experts to inform our diagnosis and most up-to-date management of the variety of patients with movement disorders we encounter in our practices,” said Continuum Editor-in-Chief and host of the Continuum Audio series Steven L. Lewis, MD, FAAN, who is professor and associate chair at Rush University Medical Center.

The first two hours of the series are currently available; the second two hours will be available in August.

Hour 1:
- Christopher W. Hess, MD / Diagnosing Parkinson Disease
- John C. Morgan, MD, PhD / Treating the Motor Symptoms of Parkinson Disease
- Jennifer G. Goldman, MD, MS, FAAN / Neuropsychiatric Issues in Parkinson Disease

Hour 2:
- Nikolaus R. McFarland, MD, PhD / Diagnostic Approach to Atypical Parkinsonian Syndromes
- Janis M. Miyasaki, MD, MEd, FRCP, FAAN / Treatment of Advanced Parkinson Disease and Related Disorders
- Susan H. Fox, MBChB, MRCP, PhD / Diagnosis and Management of Tremor

Hour 3:
- Vicki Shanker, MD / Diagnosis and Management of Dystonia
- Tiago A. Mestre, MSc, MD / Chorea
- Tetsuo Ashizawa, MD, FAAN / Ataxia

Hour 4:
- Manju A. Kurian, PhD / Movement Disorders Presenting in Childhood
- Ronald F. Pfeiffer, MD, FAAN / Wilson Disease
- Thomas I. Cochrane, MD, MBA / Ethics of Preclinical Dopamine Transporter Imaging
- Raghav Govindarajan, MD / Incorporating Parkinson Disease Quality Measures into Practice

Continuum Audio is a biweekly audio CME program based on discussions with the authors of articles published in Continuum: Lifelong Learning in Neurology®, the official CME journal of the AAN. Continuum Audio is available in multiple formats, including apps for iOS and Android devices. This program may be used to meet self-assessment and CME requirements for maintenance of certification as mandated by the American Board of Psychiatry and Neurology. To learn more and subscribe, visit Audio-digest.org/Continuum.
Membership

Elevate Your Membership Status with Unique FAAN Designation

The AAN is seeking applications and nominations for its prestigious class of membership: the highly regarded Fellow of the American Academy of Neurology (FAAN) category. The FAAN designation will:

- Set you apart both within the Academy and in many other circumstances throughout your professional career
- Provide the recognition you deserve for your exemplary contributions to the field of neurology
- Offer exclusive eligibility to serve on the AAN Board of Directors, a unique opportunity that could allow you to have a significant impact on the future direction of the AAN and the field of neurology

To apply, nominate a colleague, or learn about qualifications, visit AAN.com/view/FAAN today. For more information, contact AAN Member Services at memberservices@aan.com or (800) 879-1960.

Congratulations New FAANs!

The AAN congratulates the following members who were named Fellows between January and April 2016.

Erika Augustine, MD, FAAN
Borna Bonakdarpour, MD, FAAN
Ronald Ellis, MD, PhD, FAAN
Gregory Esler, MD, MBA, FAAN
Stanley Fisher, MD, FAAN
Kristen Jessen, MD, FAAN
Melissa Ko, MD, FAAN
Sanjeev Kothare, MD, FAAN
Jennifer Kwon, MD, FAAN
Vivien Lee, MD, FAAN
Mark Lin, MD, PhD, FAAN
Catherine Lomen-Hoerth, MD, PhD, FAAN
Paul Mathew, MD, FAHS, FAAN
Jeffrey McLean, MD, FAAN
Augusto Miravalle, MD, FAAN
Bruce Monastersky, MD, FAAN
Beau Nakamoto, MD, PhD, MBA, FAAN
Paul Nyquist, MD, MPH, FAAN
Nima Ramezan-Arab, MD, FAAN
Keith Sanders, MD, FAAN
Mohammad Salajegheh, MD, FAAN
Raad Shakir, MD, FRCP, FAAN
Nicholas Stanek, MD, FAAN
Bradford Talcott, MD, PhD, FAAN
Lawrence Zeidman, MD, FAAN

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Dates and Deadlines

<table>
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<tr>
<th>JULY 2016</th>
<th>AUGUST 2016</th>
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JULY 1
Application Deadline: Transforming Leaders Program
AAN.com/view/TransformingLeaders

JULY 8–10
Sports Concussion Conference
Hilton Chicago
AAN.com/view/ConcussionConference

JULY 15
Application Deadline: UCNS Autonomic Disorders Certification Examination
UCNS.org/go/subspecialty/autonomic/certification

AUGUST 10
Webinar: Grading on a Curve: Using Benchmarks to Improve Your Bottom Line
:Register by August 9
AAN.com/view/pmw16

AUGUST 15
Application Deadline: UCNS Neuroimaging Certification and Recertification Examinations
UCNS.org/go/subspecialty/neuroimaging/certification

SEPTEMBER 8
Fall Conference Early Registration Deadline
AAN.com/view/Fall

SEPTEMBER 13
Webinar: Solo, But Not Alone: Thriving in Small Neurology Practices
:Register by September 12
AAN.com/view/pmw16
New Board Member Educates on Need for Financial and Estate Planning for People with Chronic Brain Disease

Just as neurologists can’t use a one-size-fits-all approach to their patients, financial planners and lawyers advising people with chronic brain diseases should be tailoring their recommendations to the type of challenges the individual can be expected to face.

Yet when estate and tax planning attorney Martin M. Shenkman’s wife, Patti Klein, an anesthesiologist, was diagnosed with multiple sclerosis (MS) in 2006, Shenkman found few resources to help them plan for the future. He and his wife made it their goal to address that problem.

Shenkman, who joined the American Brain Foundation Board of Directors in January, has written scores of articles and four books on the issues surrounding financial and estate planning for people with chronic illness and disability, including books for the National Multiple Sclerosis Society and the Michael J. Fox Foundation for Parkinson’s Research. When air travel became too difficult for Patti, the couple purchased an RV and took their mission on the road. Shenkman has made more than 70 presentations around the country on the topic for professional organizations for financial planners, CPAs, and lawyers, charities, and others.

“The recruitment of Martin Shenkman to our board is part of our drive to bring influential, talented non-neurologists into the leadership of the Foundation,” said Jane Ransom, executive director of the American Brain Foundation. “This is essential as we begin appealing to the American public to join the fight against brain disease.”

Shenkman talks about his motivation for working with the American Brain Foundation:

What moved you to join the American Brain Foundation Board of Directors?

My wife was diagnosed 10 years ago with MS and we saw and subscribed to Neurology Now. I found the articles excellent (more informative and more intelligent than most consumer publications on these topics) and I contacted Neurology Now and offered to write for them and did a series of articles. When I learned of the American Brain Foundation and its relationship with the AAN, it was a natural to jump in. About five years ago my wife and I started a personal charitable mission to educate professional advisers (attorneys, CPAs, financial planners) on how to better plan for clients living with chronic illness. We intentionally broadened our mission beyond MS so that it would have more relevance to people we reach and help more people. So the idea of a charity that has a similar mission to address all of the injuries and diseases of the brain was a natural fit. Also, it is my layman’s impression that funding research for all brain disease may identify issues, treatments, and hopefully cures that single-disease funding organizations might miss. Finally, the ABF’s ability to tap the intellectual capital of the AAN sets it apart from any charity I’ve ever worked with. For the lawyers, CPAs, and financial planners I lecture to and write for, the ABF is a simple, one-stop charitable solution for many of the clients who are looking for charitable giving opportunities.

What experiences and viewpoints do you bring to this role?

I’m a caregiver for a spouse with MS, I am an attorney/estate planner who regularly guides clients on planned gifts (donations), and I have a personal charitable effort that has similar missions. I’m also a CPA and financial planner.

What do you hope to accomplish as a member of the American Brain Foundation Board of Directors?

I think the potential of what the AAN and American Brain Foundation can do together, if properly capitalized on, is incredible. The stellar reputation and intellectual capital of the AAN coupled with a consumer-facing charity with a broad mission seems unique. •

Martin M. Shenkman, CPA, MBA, PFS, AEP, JD
neurodegenerative disorders, including mild cognitive dysfunction, dementia, and movement disorders. UTSW has the only Texas-based NIA-funded fellowship in Behavioral Neurology that is accredited by the United Council for Neurological Specialties (UCNS) and the American Board of Neurology and Neurosurgery. UTSW is a fully accredited fellowship program with extensive training in the diagnosis and management of behavioral and cognitive disorders, including Alzheimer’s disease, Frontotemporal Dementia, and Parkinson’s disease. Fellows have the opportunity to participate in clinical and translational research projects, as well as to present their work at national and international conferences. Fellows also have the opportunity to interact with a diverse patient population, including both adults and children. The fellowship program is designed to prepare fellows for careers in academic neurology, where they can contribute to the field of Behavioral Neurology through research and clinical practice.

Fellowship in Neuroimaging: The University of Florida, Gainesville (The Florida Gators) Campus is the home of the Advanced Neuroscience Network, a comprehensive network of clinical and research programs in the field of Neuroimaging. The network has grown to include over 50 neurologists in multiple specialties, including but not limited to stroke, neuro-oncology, and movement disorders. The University of Florida is a fully accredited fellowship program with extensive training in the diagnosis and management of neuroimaging disorders, including stroke, brain tumors, and movement disorders. Fellows have the opportunity to participate in clinical and research activities, as well as to present their work at national and international conferences. Fellows also have the opportunity to interact with a diverse patient population, including both adults and children. The fellowship program is designed to prepare fellows for careers in academic neurology, where they can contribute to the field of Neuroimaging through research and clinical practice.

The University of Florida Joint Commission certified academic program is an affiliate of the University of Florida College of Medicine and the Department of Neurology. The program offers a comprehensive curriculum that includes didactics, seminars, and case-based learning experiences. Fellows also have the opportunity to participate in clinical and research activities, as well as to present their work at national and international conferences. Fellows also have the opportunity to interact with a diverse patient population, including both adults and children. The fellowship program is designed to prepare fellows for careers in academic neurology, where they can contribute to the field of Neuroimaging through research and clinical practice.

Division Chief, Stroke and Vascular Neurology: University of Florida, Gainesville (The Florida Gators) Campus is the home of the Advanced Neuroscience Network, a comprehensive network of clinical and research programs in the field of Stroke and Vascular Neurology. The network has grown to include over 50 neurologists in multiple specialties, including but not limited to stroke, neuro-oncology, and movement disorders. The University of Florida is a fully accredited fellowship program with extensive training in the diagnosis and management of stroke and vascular disorders, including acute stroke, chronic stroke, and stroke prevention. Fellows have the opportunity to participate in clinical and research activities, as well as to present their work at national and international conferences. Fellows also have the opportunity to interact with a diverse patient population, including both adults and children. The fellowship program is designed to prepare fellows for careers in academic neurology, where they can contribute to the field of Stroke and Vascular Neurology through research and clinical practice.

Fellowship in Behavioral Neurology: The University of Texas Southwestern Medical Center in Dallas, Texas is offering a 1 or 2 year combined clinical and research fellowship in Behavioral Neurology & Neuropsychiatry accredited by the United Council for Neurological Specialties, starting July 2016 and July 2017. The fellowship program is designed to prepare fellows for careers in academic neurology, where they can contribute to the field of Behavioral Neurology through research and clinical practice.

Division Chief, Stroke and Vascular Neurology: University of Florida, Gainesville (The Florida Gators) Campus is the home of the Advanced Neuroscience Network, a comprehensive network of clinical and research programs in the field of Stroke and Vascular Neurology. The network has grown to include over 50 neurologists in multiple specialties, including but not limited to stroke, neuro-oncology, and movement disorders. The University of Florida is a fully accredited fellowship program with extensive training in the diagnosis and management of stroke and vascular disorders, including acute stroke, chronic stroke, and stroke prevention. Fellows have the opportunity to participate in clinical and research activities, as well as to present their work at national and international conferences. Fellows also have the opportunity to interact with a diverse patient population, including both adults and children. The fellowship program is designed to prepare fellows for careers in academic neurology, where they can contribute to the field of Stroke and Vascular Neurology through research and clinical practice.

Fellowship in Neuroimaging: The University of Florida, Gainesville (The Florida Gators) Campus is the home of the Advanced Neuroscience Network, a comprehensive network of clinical and research programs in the field of Neuroimaging. The network has grown to include over 50 neurologists in multiple specialties, including but not limited to stroke, neuro-oncology, and movement disorders. The University of Florida is a fully accredited fellowship program with extensive training in the diagnosis and management of neuroimaging disorders, including stroke, brain tumors, and movement disorders. Fellows have the opportunity to participate in clinical and research activities, as well as to present their work at national and international conferences. Fellows also have the opportunity to interact with a diverse patient population, including both adults and children. The fellowship program is designed to prepare fellows for careers in academic neurology, where they can contribute to the field of Neuroimaging through research and clinical practice.

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