AAN Foundation Reborn as American Brain Foundation

In the wake of celebrating its 20th anniversary, the American Academy of Neurology Foundation has now become the American Brain Foundation with the goal of becoming the world’s leader in raising money for research to cure brain disease. The official rebranding took place on April 24 with an announcement by American Brain Foundation Chair John C. Mazziotta, MD, PhD, FAAN, during the Presidential Plenary Session at the Annual Meeting in New Orleans.

“The AAN Foundation has had phenomenal success supporting clinical research training fellowships, has produced many meaningful campaigns such as the Cornerstone Endowment, the Neuro Film Festival and the Brain Health Fair, and attracted high-profile celebrities including Michael J. Fox and Julie Andrews, and now the time to become the American Brain Foundation is right, and the organization is poised to greatly amplify its influence, impact, and recognition around the world,” said Mazziotta.

“We’re in a perfect storm,” he continued. “We’ve got vast research potential for finding new treatments, but little funding to support it. But, it is also a perfect opportunity: in the face of flat funding, we have these tremendous treatments on the horizon, a more knowledgeable and concerned public, and tens of thousands of compassionate AAN members who know firsthand the daily tragedies of brain disease and the desperate desires of their patients, families, and caregivers for real cures.”

The new chapter in the organization’s history comes with a clear mission: simply to “Cure Brain Disease.”

Added Mazziotta, “It’s bold and it’s unapologetic, and that’s exactly where we intend to take this organization as it becomes a household name. Think of the American Brain Foundation as the final assault on brain disease. After all, wouldn’t you rather give your patients a cure than a diagnosis?”

Help us help you find a cure for your patients: Make a donation to the American Brain Foundation today at CureBrainDisease.org.

Teva Provides Largest Unrestricted Research Grant Ever to American Brain Foundation

Teva Pharmaceuticals has made a $225,000 unrestricted research grant to the American Brain Foundation (formerly known as the AAN Foundation). This is the largest unrestricted grant from a pharmaceutical company for research in the foundation’s history, and will jump-start fellowships for six recipients.

“Support for neurology fellows to do research is paramount, especially to neurology patients,” said Teva Pharmaceuticals’ Jon Congleton, Senior Vice President and General Manager, Global Branded Products, Strategic Marketing. “Teva is pleased to be able to support such an initiative that might lead to further understanding of neurology diseases, potential treatments, and an increased quality of life for the patient.”

Practice Webinar Explains Incentives for Meaningful Use of EHRs

Neurologists are running out of time if they wish to take full advantage of the $44,000 incentive program from the Centers for Medicare & Medicaid Services (CMS) for meaningful use of electronic health records (EHR). If you are confused by the meaningful use requirements and how to maximize your chance of pocketing the full $44,000, the AAN can help.

“Ready, Set, Payment: Using Certified EHRs for Meaningful Use Payments” is an AAN Practice Management Webinar offered online on Wednesday, May 16, at 12:00 p.m. ET. The deadline to register is Monday, May 14.

“Meaningful Use (MU) has become part of our vernacular since CMS announced their EHR incentive program,” said David A. Evans, MBA.
# NEWS BRIEFS

- The AAN commented on a recently released Draft National Plan to Address Alzheimer’s Disease. The plan was a requirement of the National Alzheimer’s Project Act. The law also required a creation of the Advisory Council on Alzheimer’s Research, Care, and Services to coordinate work on Alzheimer’s-related research and strategic planning to overcome the disease. The Advisory Council is chaired by AAN member Ronald Petersen, PhD, MD.

- The AAN recently hosted a webinar for more than 15 medical directors from CMS carriers and private insurance companies with whom the AAN has a working relationship. Gary Gronseth, MD, FAAN, evidence-based medicine consultant to the AAN, outlined upcoming improvements to the AAN’s guideline development process and invited a two-way dialogue with the medical directors about the changes, since insurers are an audience the AAN considers when developing guidelines.

- The AAN signed on to a letter to Sen. Tom Harkin (D-IA), Chairman of the Senate Health, Education, Labor and Pensions Committee, requesting $32 billion in funding levels in FY2013 for the National Institutes of Health, including $1.698 billion for the National Institute of Neurological Disorders and Stroke.

- Idaho, Florida, Kentucky, and Wisconsin have passed legislation implementing new regulations for head injuries and concussions in youth sports in 2012. The AAN supports “Lystedt Law” legislation emphasizing education among coaches, parents, and players; immediate removal from play if an athlete is suspected of a concussion; and clearance by physician or health care professional properly trained in the evaluation and management of concussion.
Join AAN Advocates Fighting for Local, Federal Change

All of us recognize that there are systematic problems with the funding and delivery of health care services in this country. There is substantial competition for state and federal resources. For more than a decade, the AAN has trained members as advocates for neurology and our patients to ensure our concerns are heard.

The Palatucci Advocacy Leadership Forum (PALF) is two-and-a-half days of intensive advocacy training. Participants are asked to develop an idea or policy for which they would like to advocate and implement. Mentors work with the participants in small groups to refine the advocates’ messages, the message delivery, and establish an effective plan of action. Media training and coaching on effective advocacy to legislators is a key part of the program. More than 300 neurologists over the past decade have participated in the program.

Since 2003, Neurology on the Hill (NOH) has trained over 500 neurologists to advocate for neurology on Capitol Hill in Washington, DC. (See page 4 for pictures from this year’s visit.) Each year, a cross section of AAN members representing almost every state floods the Halls of Congress, delivering messages that are key to the specialty and to the patients we care for. This year, two key messages to Congress were to fix the flawed Sustainable Growth Rate (SGR) formula and recognize that some specialties such as neurology, in addition to primary care, principally deliver face-to-face patient care.

Graduates of PALF are active participants of our advocacy efforts, including serving on the Governmental Relations Committee and the Medical Economics and Management Committee. PALFers were key in establishing neurologists and the AAN as an authority on concussion, establishing model policies for anticonvulsant coverage in particular by Medicaid, and developing position papers on topics including telemedicine, among many other accomplishments.

NOH has been key to a number of legislative successes including preventing SGR cuts, authorization of MS and Parkinson’s Disease Centers of Excellence within the VA, pushing Congress to pass TBI screening for service members, and creating the VA Centers of Excellence for Epilepsy, among others.

One of my personal frustrations is the lack of action by Congress on recognition that the work of evaluation and management services performed by non-procedural specialties such as neurology should have the same recognition as primary care. Our contribution to the quality of life and improved outcomes in patients with complex chronic diseases is demonstrated in numerous studies. The burden of these diseases and the need for adequate numbers of neurologists going forward as the population ages emphasizes the need for this recognition.

However, things are not as bleak as they seem. In recent trips to Washington, I found that the congressional staff and members on committees of jurisdiction are well aware of this issue. Just a few years ago, there was no recognition that some specialties performed the same amount of evaluation and management care as primary care and were experiencing the same problems. Increasingly, there is appreciation that if the payment differential to primary care versus non-procedural specialties continues to increase, there will be substantial unintended consequences. The fact that the problem has not been effectively addressed to date in part is due to the budgetary and deficit problem the federal government is facing and the increasing political divide between the parties in Washington, resulting in the inability to get just about anything done. It is my view that ultimately the problem will be effectively addressed.

I would encourage all of you to consider applying for either PALF or NOH. Neurology needs effective advocates at both the local and national level. Whether or not we like it, decisions on health care payment policy and delivery system reform are driven by the state and federal governments.

“Neurology needs effective advocates at both the local and national level. Whether or not we like it, decisions on health care payment policy and delivery system reform are driven by the state and federal governments.”

—Bruce Sigsbee, MD, FAAN

Online applications for the 2013 Palatucci Advocacy Leadership Forum will be accepted beginning in June, and for the 2013 Neurology on the Hill beginning in November.
Neurologists Take the Hill

A record number of 142 AAN members visited congressional offices on Capitol Hill on February 28 to represent their patients and the neurology profession. The advocates made their cases for fair reimbursement of services and increased funding for neurologic research. For more information about the event and other advocacy opportunities, see the President’s Column on page 3.
Stroke

Wouldn’t you rather give a cure than a diagnosis?

CureBrainDisease.org
AAN Publishes New Guidelines on Migraine Prevention

The AAN has published two guidelines that show many pharmaceutical, anti-inflammatory (NSAIDs), and complementary treatments can help prevent migraine attacks in certain people. However, only a minority of people with migraine who are candidates for these preventive treatments actually use them. The guidelines were published in the April 24, 2012, issue of Neurology®.

“The strongest evidence we found was for the pharmaceutical treatments divalproex sodium, sodium valproate, topiramate, metoprolol, propranolol, and timolol, and for frovatriptan for short-term menstrually associated migraine, as well as for the herbal preparation Petasites (butterbur),” said guideline author Stephen D. Silberstein, MD, FACP, FAHS, FAAN. “However, there were several other pharmaceutical and complementary treatments with evidence for use, and still others with evidence against use or with insufficient evidence to make a determination regarding efficacy.”

The frequency and severity of migraine attacks can be reduced with preventive treatments. Some studies show that migraine attacks can be reduced by more than half. However, epidemiologic studies suggest that migraine is a condition that is underrecognized and undertreated. “About 38 percent of people who suffer from migraine could benefit from preventive treatments, but only about less than half of these people currently use them,” said Silberstein.

Patients using pharmaceutical treatments or those using easily accessible complementary or over-the-counter treatments may be unaware of the need for regular follow-up with their doctor, as migraines can worsen or improve, which may require adjusting dosages or changing to another drug.

To read the migraine guidelines and access PDF summaries for clinicians and patients, a slide presentation, and a clinical example, visit www.aan.com/go/practice/guidelines. For more information, contact Julie Cox at jcox@aan.com or (612) 928-6069.

New Blog Illuminates Guideline Processes

The Academy recently launched AAN Guidelines Exchange: Evidence and More, a twice-weekly blog that provides insight into the AAN’s systematic review and clinical practice guideline development processes and fills a gap in communication within the guideline development community. The blog is a free public resource that allows physicians, patients, third-party payers, and others interested in health care to learn more about AAN systematic review and guideline development, dissemination, and outreach offerings, and access free tools and resources to incorporate into their processes. The blog also serves as a public platform to engage interested individuals in guideline-related topics and content and will serve as the primary platform for commenting on these documents just prior to publication.

Read the blog at www.aan.com/practice/blog and/or subscribe to the blog by entering this URL into any RSS reader: www.aan.com/practice/blog/feeds/rss.cfm.

Your Rx for a Better Practice:

www.aan.com/go/practice

Visit daily for the latest news on coding, reimbursement, and quality initiatives. Read and download practice guidelines, measures, and tools. Gain insights from your peers on how to enhance your practice.
FAQ on Medicare Physician Quality Reporting System (PQRS)

This is the last of three articles answering frequently asked questions on incentive programs that neurologists need to know about: electronic prescribing (March AANnews), electronic health records (April AANnews), and quality reporting.

What is the PQRS Incentive Program?
The Physician Quality Reporting System provides an incentive payment for eligible professionals (EPs) who satisfactorily report data on quality measures for covered professional services furnished to Medicare beneficiaries.

Do I need to register to participate?
Individual eligible providers do not need to register in order to participate in the PQRS. However, eligible providers participating in the program must meet the reporting criteria for satisfactory reporting for the reporting period. Those participating in the Group Practice Reporting Option (GPRO) do, however, need to register. Registration for this reporting option must be done prior to the start of the reporting year.

Who is eligible to participate in the program?
Those identified to participate in the PQRS are those who provide covered professional services that are paid under or based on the Medicare Physician Fee Schedule. CMS has identified specific individuals as eligible providers under the PQRS program. This information is available on the AAN website at www.aan.com/view/pqrs.

What are the reporting options available?
There are several ways in which quality measures can be reported under the PQRS. There are defined measures that are reported individually and those that are to be reported as a measures group. Those EPs reporting on individual measures will need to report on at least three different quality measures. Those reporting utilizing a measures group must report on all measures within the defined group. Information and specifications for both of these options are available on the AAN website at www.aan.com/view/pqrs.

The PQRS program currently offers three options for reporting the clinical quality data to CMS: claims-based reporting, registry-based reporting, and EHR-based reporting. The specifications for each individual quality measure or measures group define how the measure can be reported.

What are the reporting periods?
CMS has two reporting periods for the 2012 PQRS program; they are a 6-month and a 12-month reporting option. The 6-month reporting option applies only to measures that are reported via a qualified registry. The 12-month reporting option would be retained for measures that are reported either via a registry or claims.

Are there neurology-specific measures?
The 2012 program includes three epilepsy measures, six Parkinson’s disease measures, nine dementia measures, and four sleep measures. The epilepsy measures are reportable as individual measures and the other three are reportable as measures groups.

Submit Your Hardship Exemption Now for the 2013 eRx Payment Adjustment

The Centers for Medicare & Medicaid Services (CMS) has re-opened its Quality Reporting Communication Support Page for neurologists to request a significant hardship exemption for the 2013 Electronic Prescribing (eRx) Incentive Program payment adjustment. The deadline to submit a hardship request is through June 30, 2012. This deadline coincides with the last reporting day for the 2013 eRx Payment Adjustment reporting period for all eligible professionals who do not qualify for a hardship exemption. For more information on the reporting requirements to avoid the 2013 penalty, visit the AAN's Medicare eRx Incentive Program webpage at www.aan.com/go/practice/pay/erx.

Hardship exemptions for the 2013 payment adjustment include:
• The inability to electronically prescribe due to state, federal, or local law or regulation
• The eligible professional prescribes fewer than 100 prescriptions during a six-month payment adjustment period (January 1, 2012, through June 30, 2012, for the 2013 payment adjustment)
• The eligible professional practices in a rural area without sufficient high-speed Internet access (G8642)
• The eligible professional practices in an area without sufficient available pharmacies for electronic prescribing (G8643)

Visit www.qualitynet.org/pqrs and select “Communication Support Page” on the left-hand side of the page under Related Links to submit your hardship requests today. Be prepared to justify your request with any relevant information.

For more information on the eRx Incentive Program, visit www.aan.com/go/practice/pay/erx.
Practice Webinar Explains Incentives for Meaningful Use of EHRs
continued from cover

presenter David A. Evans, MBA. “Many physicians across the country have received their initial incentive dollars with many more attesting every day. The AAN’s upcoming webinar ‘Ready, Set, Payment: Using Certified EHRs for Meaningful Use Payments’ is essential for any physician considering qualifying for incentive dollars. The webinar will provide an overview of CMS’ incentive program, the requirements for meeting Stage 1 of MU and the proposed Stage 2, as well as a detailed guide to the attestation process.”

The program begins with 60 minutes of lecture followed by 30 minutes of questions and answers. Recordings will be available free of charge following the webinar for all who register for the live webinar. Slides will be available for all participants. Upon completion, participants should be able to:

• Understand the federal incentives that are available for the use of an EHR

• Understand the requirements that must be met to obtain the incentives

• Identify EHRs or EHR modules that are certified to qualify for Meaningful Use Stage 1

• Understand what is required of a neurologist to demonstrate meaningful use

• Calculate the consequences for physicians who do not purchase an EHR

• Evaluate whether the incentive is worth pursuing for a neurologist—and why “sooner may be better than later” for the neurologist

This is the fifth of 10 practice management webinars scheduled for 2012. The discounted cost for members to participate in the webinars is $149 for the first and $50 for each additional webinar—a special 25-percent savings from the pricing for nonmembers. Recordings of the webinars will be provided free of charge for all live webinar participants. Slides are included with all webinar purchases.

For more information, visit www.aan.com/view/pmw12 or contact Christi Kokaisel at ckokaisel@aan.com or (612) 928-6052.

2012 Practice Webinars

• Recording available: Decoding the 2012 Physician Fee Schedule: Changes That Impact Neurology

• Recording available: EHR Implementation: What You Need to Know from A-Z

• Recording available: CPT Coding for Neurodiagnostic Procedures Made Easy

• Recording available: Incentive Programs and Penalties: What Do They Mean for My Practice?

• Tuesday, May 16

Ready, Set, Payment: Using Certified EHRs for Meaningful Use Payments

• Tuesday, June 12

The ABCs of Coding

• Tuesday, July 17

E/M: Minimize Mistakes, Maximize Reimbursement

• Tuesday, September 18

Thriving in the Face of an Audit

• Tuesday, October 16

ICD-10: Are You Prepared?

• Tuesday, November 6

Coding Accurately for Stroke and Critical Care

New Coding Change in Effect for EMGs and Nerve Conduction Studies

On April 1, 2012, a National Correct Coding Initiative (NCCI) edit went into effect, again changing the way physicians who perform EMGs are required to bill their services for CMS. A modifier now is required when performing a limited study of four or fewer muscles (95885) on one extremity and a complete study of five or more muscles (95886) on another study on the same patient on the same date of service. Thus, when 95885 and 95886 are reported together, they must be accompanied with a modifier. The specific modifier required to comply with this NCCI edit will vary among payers.

Both codes should be reported once per extremity, and can be reported together up to a combined total of four units of service per patient when all four extremities are tested.

Also effective April 1, at least one Medicare carrier will begin requiring additional documentation for nerve conduction studies. According to a recently announced local coverage decision from TrailBlazer Health Enterprises, LLC, “payment for nerve conduction studies will require additional information be included on or with the claim.” This required information includes the manufacturer’s name as well as the model name of the equipment used for testing.

Visit the CMS website at www.cms.gov/medicare-coverage-database to find your Medicare carrier and the most recent coverage policies for your area. More information about this change and other diagnostic coding insights is available in the online webinar “CPT Coding for Neurodiagnostic Procedures Made Easy.” Visit www.aan.com/go/practice/coding/conferences to access this and other recordings or to register for upcoming practice management topics.
AAN Pledges to Improve Quality of Life for Epilepsy Patients in Response to IOM Report

The AAN is pledging to work with the entire epilepsy community to improve the quality of life for epilepsy patients in response to recent recommendations made by the Institute of Medicine (IOM) in its report *Epilepsy Across the Spectrum – Promoting Health and Understanding.*

The report contains two major recommendations that specifically encourage the AAN to join with the American Epilepsy Society (AES) in developing and validating screening tests for early identification of epilepsy in at-risk populations, establish and disseminate a standard screening protocol for co-existing conditions, and establish and disseminate a screening tool for early identification of patients who will benefit from earlier referrals to epilepsy specialists and centers.

“Epilepsy is the fourth most common neurologic disorder in the United States, and we recognize that more work is needed to improve the quality of life for these patients as well as the public’s understanding of epilepsy,” said President Bruce Sigsbee, MD, FAAN.

The report also asks the AAN and the AES to collaborate with other relevant organizations to enhance the education of neurologists and other providers about essential epilepsy knowledge and skills; identify existing educational gaps; develop interactive materials and tools for integration into existing curricula; ensure that materials and programs optimally reflect current research, guidelines, and practices; to explore and promote the use of innovative interdisciplinary educational approaches such as simulation; and to disseminate the curriculum and tools widely.

“One out of every 26 people in the United States will develop epilepsy at some point in their lifetime,” said Sigsbee. “The IOM report offers a comprehensive analysis of the various challenges facing the epilepsy community, ranging from valid assessments of epilepsy prevalence, defining quality measures in epilepsy care, access to appropriate health care and community services, treatment that focuses not only on controlling seizures but also the complex conditions that accompany epilepsy, and the need for improved education of providers, patients, and the public to raise awareness about epilepsy and reduce stigma.”

AAN Practice Management Webinars

Help for Your Practice, CME for Your Career

The AAN’s Practice Management Webinars provide real value to you and your practice at a price you can afford. Attend live or enjoy convenient on-demand recorded sessions available after each webinar.

May 16  Ready, Set, Payment: Using Certified EHRs for Meaningful Use Payments
June 12  The ABCs of Coding
July 17  E/M: Minimize Mistakes, Maximize Reimbursement

See the full 2012 schedule and register today at www.aan.com/view/pmweb12.
Academy Offers Many Opportunities to Earn CME by June 30 Deadline

The AAN provides an array of CME opportunities to help neurologists conveniently satisfy their state’s continuing medical education (CME) requirements by the June 30, 2012, deadline.

New! NeuroLearn
The AAN’s new, affordable, and convenient suite of online education courses offers a range of CME credits, from .5 to 2 hours. These highly focused and learner-driven multimedia courses address relevant clinical neurology and practice core competencies and may be taken on your own time and at your own pace. Available topics include: Clinical topics such as Fibromyalgia and Treating Fatigue in MS, Practice topics such as Health Literacy and Advanced Coding, and Transition to Practice courses for Residents. Visit www.aan.com/view/neurolearn.

NeuroSAE IV and Vascular Edition
The AAN’s online self-assessment examination now offers 8 CME credits (NeuroSAE® IV and Vascular Editions only). ABPN-approved to help participants take the necessary steps towards fulfilling both the self-assessment and CME components of MOC, NeuroSAE’s 100-question exam assesses your knowledge of neurology and compares your performance to other neurologists. Available in mobile version. Visit www.aan.com/view/NeuroSAE.

NeuroPI: Performance Improvement in Neurology
The AAN’s online performance improvement program meets the ABPN MOC Part 4 Performance in Practice component requirements in addition to offering 20 AMA PRA Category 1 Credits™ per module. Available in Epilepsy; Parkinson’s Disease: Diagnostic Review, Cognitive Psychiatric, and Sleep Disturbances; Patient Safety: Falls; and Obstructive Sleep Apnea. Participants have up to 24 months to complete a NeuroPI project. Visit www.aan.com/view/NeuroPI.

Continuum: Lifelong Learning in Neurology®
The AAN’s self-study publication provides up to 12 hours of AMA PRA Category 1 Credits™ per issue. Assess your knowledge online, on your mobile device, and in print. Continuum® also is approved to meet the ABPN self-assessment and continuing medical education requirement for MOC. Visit www.aan.com/go/elibrary/continuum to learn more. To order back issues or subscribe at a special AAN member rate, call (800) 361-0633 (North America) or (301) 223-2300 (international).

New! Continuum Audio
Continuum Audio is a new biweekly CME audio program produced by the AAN in partnership with the Audio-Digest Foundation. Continuum Audio draws upon the topics and case studies featured in Continuum: Lifelong Learning in Neurology.

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and features conversations with leading experts and clinicians in neurology, emphasizing important aspects clinicians face in their day-to-day practices. Participants may earn up to 2 AMA PRA Category Credits® per program (or up to 48 per year).

**Neurology® Journal**
Stay current on the latest in research with the AAN’s premier scientific journal. Subscribers earn free CME credit by completing online quizzes for select articles in any issue in a current year at any time. Each issue is worth 1.5 CME credits—or up to 72 CME credits for a full year’s worth of issues. Visit www.neurology.org.

**Neurology Podcasts**
Listen to the weekly Neurology Podcast and earn 0.5 AMA PRA Category 1 CME Credits® by answering the multiple-choice questions in the online podcast quiz. Each podcast is introduced by Editor-in-Chief Robert A. Gross, MD, PhD, FAAN, with a discussion of highlights in the current issue. Listeners then enjoy an interview with an article author who summarizes his or her paper and discusses the main findings and clinical implications for neurologists. The podcast concludes with a short segment on a topic such as a laboratory technique, statistical method, or historical note.

**Practice Management Webinars**
Through Practice Management Webinars, you can earn CME while getting the latest coding information or staying current with health care changes that impact your practice. Each webinar offers 1.5 AMA PRA Category 1 Credits®. Visit www.aan.com/go/practice/coding/conferences.

### Patient Safety Online CME
This online-only CME offering is “Recognizing Abuse in Your Neurology Patients” by Anna DePold Hohler, MD, FAAN. Offering one CME credit, this important module covers the prevalence of abuse, the different types of abuse, methods of screening, and ways to respond to a patient who discloses abuse. Visit www.aan.com/view/recognizeabuse.

### Let NeuroTracker Help You Determine Your CME Needs
Visit NeuroTracker as part of the AAN’s online Learning Across Your Lifetime experience on AAN.com to quickly and easily track your CME progress. This member-only, one-stop shop lets you manage both AAN and non-AAN activities, from maintenance of certification (MOC) requirements to professional development. In order to start using NeuroTracker—and experience the full benefits of the Learning Across Your Lifetime online recommendation experience—visit www.aan.com/axom=user.profile to update your profile and then visit NeuroTracker at www.neurotracker.com.

### Education Research Grant Proposals Due August 15

Proposals for the AAN’s Education Research Grant program are due by August 15, 2012. Two to four awards will be given, ranging from $5,000 to $10,000, based on the proposal and merits of the project. Projects receiving grants are expected to help improve the neurologic education of AAN members—including neurology residents and fellows, medical students, and non-neurologists—and promote career development of neurology educators.

Information guidelines and the grant application will be available later this month at www.aan.com/go/education/eduresearch.

For more information, contact Nancy Poechmann at npoechmann@aan.com or (612) 928-6103.

### UCNS Change of Address

The UCNS office has relocated with the AAN to its new headquarters in Minneapolis.

Be aware of this change when submitting applications for the Behavioral Neurology & Neuropsychiatry and Neural Repair and Rehabilitation certification examinations. Applicants are advised to email their applications to UCNS at applications@ucns.org to avoid any delay in processing. Payment must be mailed to the new address: UCNS, 201 Chicago Avenue South, Minneapolis, MN 55415. Email addresses for UCNS will remain the same; the new phone number is (612) 928-6050.

### UCNS Neuroimaging Certification Applications Available

The applications for the United Council for Neurologic Subspecialties (UCNS) Neuroimaging certification examination that will be offered in 2013 are now available. The deadline to apply is August 15, 2012. The exam will be offered the week of January 28 to February 1, 2013.

Applications are available at www.ucns.org/go/subspecialty/neuroimaging/certification. For more information, contact Todd Bulson at tbulson@ucns.org or (612) 928-6067.
AAN Clinical Skills Examination Training Program Now Available

Neurology program directors and residents will want to become familiar with the new Clinical Skills Examination Training Program. It has been developed by the AAN to help residents understand the American Board of Psychiatry and Neurology performance requirements for the five Clinical Skills Evaluations (NEX) neurology residents must pass to achieve board certification.

Program directors are encouraged to download the one-hour moderator-led faculty development session.

The program will help faculty evaluators appreciate the difference between passing and failing clinical skills examination performances and will help improve the inter-rater reliability of clinical skills examination.

For more information and to download the files, find and open the Program Director Toolbox online at www.aan.com/go/education/directors/consortium, or contact Lucy Persaud at lpersaud@aan.com or (612) 928-6107.

In Memoriam: Robert J. Joynt, MD, PhD, FAAN

Robert J. Joynt, MD, PhD, FAAN, president of the AAN from 1977 to 1979, and founder of the neurology department at the University of Rochester, passed away on his way to neurology grand rounds at the University of Rochester Medical Center on April 13. He was 86.

Joynt, a member of the AAN since 1954, was the first recipient of the Academy’s A.B. Baker Lifetime Achievement Award in 1990, honoring his accomplishments as an educator in neurology. He served on the Board of Directors and numerous committees. Most recently, Joynt had a regular column in Neurology, “Changes, People, Comments,” where he updated readers on news in the neurology community and his own wry observations about whatever topic took his fancy, from disdain for holiday parties to the frenetic pacing of recent motion pictures. In his April 3, 2012, column, he noted “I am not a big moviegoer but my wife loves them. So I am a big moviegoer.”

Joynt grew up in LeMars, IA, and served in World War II as a radio operator in India. Upon returning home, Joynt attended Westmar College, received his bachelor’s degree magna cum laude, and his medical degree from the University of Iowa. After a Fulbright scholarship to Cambridge University from 1953 to 1954, he returned to the University of Iowa to do his residency as a pupil of Adolph L. Sahs, one of the “Four Horsemen” who helped found the AAN. He was appointed to the faculty of the University of Iowa School of Medicine, and while there he earned his master’s degree and PhD.

Joynt left Iowa in 1966 to become professor and founding chair of the neurology department at the University of Rochester. He also served as acting dean of the University of Rochester School of Medicine and Dentistry and then vice-provost for Health Affairs in 1985. He was president of Health Affairs from 1989 to 1994, when he returned to the department of neurology.

In 1989, the university’s Medical Alumni Association presented Joynt with the Gold Medal Award for his “integrity, inspiring teaching and devotion to medical students.” He was again honored that year when he was elected to the Institute of Medicine.

In 1997, he was bestowed with the title of Distinguished University Professor, given to a professor who not only excels in his or her own field but has served the entire university. In 2011, a chair was endowed in his name, and he was present at the installation of Karl Kieburtz, MD, MPH, last December.

Along with his legendary academic career, Joynt was a noted writer and editor, served on numerous editorial boards beginning with Medical Digest in 1964. He was associate editor and later chief editor of the Archives of Neurology, and co-editor of the four-volume reference set Clinical Neurology, originally edited by A.B. Baker. In 2001, Joynt co-edited Presidential Disability, a book exploring the ramifications of the 25th Amendment, which addresses presidential succession should he or she be incapacitated. He was a past president of the American Neurological Association and the American Board of Psychiatry and Neurology.

Joynt is survived by his wife, Margaret, their six children, and nine grandchildren.
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▶ Now patients can start with titration and continue therapy with AVONEX PEN

Indication

AVONEX is indicated for the treatment of patients with relapsing forms of multiple sclerosis to slow the accumulation of physical disability and decrease the frequency of clinical exacerbations. Patients with multiple sclerosis in whom efficacy has been demonstrated include patients who have experienced a first clinical episode and have MRI features consistent with multiple sclerosis.

Please see brief summary of full prescribing information on the following pages for Important Safety Information.
START with significantly fewer flu-like symptoms (FLS)

A 3-week titration schedule proven in a clinical trial to reduce the incidence and severity of FLS

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 dose</td>
<td>1/2 dose</td>
<td>3/4 dose</td>
</tr>
</tbody>
</table>

Reductions in incidence and severity of FLS at 4-6 hours over 8 weeks

- **Overall incidence**
  - 33 subjects
  - 60% reduction in FLS incidence (p<0.003)

- **Overall severity**
  - 0.539
  - 76% reduction in FLS severity (p<0.001)

▶ In placebo-controlled studies that did not include titration, 49% of patients treated with AVONEX reported FLS.

The AVOSTARTGRIP™ 3-week titration kit facilitates the titration process

- For use with AVONEX prefilled syringe

Study description: Results from an 8-week, randomized, dose-blinded titration study for AVONEX that compared no titration (n=78) with titration (n=78) in healthy subjects. Subjects in the no-titration arm received a full dose (30 mcg) from week 1 to week 8; titrated subjects received a one-quarter dose at week 1, a one-half dose at week 2, a three-quarter dose at week 3, and a full dose from week 4 to week 8. All subjects received prophylactic acetaminophen 650 mg administered before each AVONEX injection (within 1 hour) and after (at 4-6 hours, 8-10 hours, and 12-15 hours). Muscle aches, chills, and fatigue were rated on a 4-point scale: 0 (absent), 1 (mild; does not interfere with daily activities), 2 (moderate; sufficient to interfere with daily activities), or 3 (severe; bed rest required). Fever was scored as follows: 0 (<99.1°F), 1 (<99.1°F to <100.1°F), 2 (<100.1°F to <101.1°F), or 3 (<101.1°F).

- Includes subjects who experienced a ≥2-point increase in total FLS score from pre- to post-injection. Total FLS score ranged from 0 to 12 and was the sum of the 4 individual symptom scores.

- Severity was assessed as the total change in FLS score from pre- to post-injection. Total FLS score ranged from 0 to 12 and was the sum of the 4 individual symptom scores.

**Indication and Important Safety Information**

**Indication**

AVONEX is indicated for the treatment of patients with relapsing forms of multiple sclerosis to slow the accumulation of physical disability and decrease the frequency of clinical exacerbations. Patients with multiple sclerosis in whom efficacy has been demonstrated include patients who have experienced a first clinical episode and have MRI features consistent with multiple sclerosis.

**Important Safety Information**

- Patients and their caregivers should be advised to report immediately any symptoms of depression, suicidal ideation, and/or psychosis. If a patient develops depression or other severe psychiatric symptoms, cessation of AVONEX therapy should be considered.

- **Severe hepatic injury**, including cases of hepatic failure, has been reported rarely in patients taking AVONEX. Patients should be monitored for signs of hepatic injury and caution exercised when AVONEX is used concomitantly with other drugs associated with hepatic injury.

- Rare cases of anaphylaxis have been reported. Other allergic reactions have included dyspnea, orolingual edema, skin rash and urticaria.
Patients with cardiac disease, such as angina, congestive heart failure, or arrhythmia, should be closely monitored for worsening of their clinical condition during initiation and continued treatment with AVONEX.

Decreased peripheral blood counts in all cell lines, including rare pancytopenia and thrombocytopenia, have been reported from postmarketing experience.

Caution should be exercised when administering AVONEX to patients with pre-existing seizure disorders.

Autoimmune disorders of multiple target organs have been reported. If patients develop a new autoimmune disorder, consider stopping therapy.

AVONEX PEN offers:

- A new delivery method: one click, once a week
- 50% shorter needle than the standard needle used with the AVONEX prefilled syringe
- Concealed 5/8” needle
- 89% overall injection success rate, defined as patients who followed all of the instructions for use correctly with no device malfunction
  — 99% of patients received the full dose of AVONEX

AVONEX PEN offers:

- A new delivery method: one click, once a week
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- 89% overall injection success rate, defined as patients who followed all of the instructions for use correctly with no device malfunction
  — 99% of patients received the full dose of AVONEX

Start with titration. Stay with AVONEX PEN.

The two new reasons to consider once-a-week AVONEX

- Routine periodic blood chemistry and hematology tests are recommended during treatment with AVONEX.
- AVONEX should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.
- The most common side effects associated with AVONEX treatment are flu-like symptoms including chills, fever, myalgia, and asthenia.

Please see brief summary of full prescribing information on the following page for additional Important Safety Information.
AVONEX® (interferon beta-1a) Intramuscular Injection
Brief Summary of Full Prescribing Information

1 INDICATIONS AND USAGE

AVONEX (interferon beta-1a) is indicated for the treatment of patients with relapsing forms of multiple sclerosis to slow the accumulation of physical disability and decrease the frequency of clinical exacerbations. Patients with multiple sclerosis in whom efficacy has been demonstrated include patients who have experienced a first clinical episode and have MRI features consistent with multiple sclerosis.

4 CONTRAINDICATIONS

AVONEX is contraindicated in patients with a history of hypersensitivity to natural or recombinant interferon beta, or any other component of the formulation [see Warnings and Precautions (5.3)]. The lyophilized vial formulation of AVONEX is contraindicated in patients with a history of hypersensitivity to albumin (human).

5 WARNINGS AND PRECAUTIONS

5.1 Depression, Suicide, and Psychotic Disorders

Patients treated with AVONEX and their caregivers should be advised to report immediately any symptoms of depression, suicidal ideation, and/or psychosis to their prescribing physicians. If a patient develops depression or other severe psychiatric symptoms, cessation of AVONEX therapy should be considered.

Depression and suicide have been reported to occur with increased frequency in patients receiving AVONEX. In Study 1, the incidence of depression was similar in placebo-treated and in AVONEX-treated patients, but suicidal tendency was seen more frequently in AVONEX-treated patients (4% in AVONEX group vs. 1% in placebo group). In Study 2, there was a greater incidence of depression in AVONEX-treated patients than in placebo-treated patients (20% in AVONEX group vs. 13% in placebo group) [see Clinical Studies (14)].

Additionally, there have been post-marketing reports of depression, suicidal ideation, and/or development of new or worsening of other pre-existing psychiatric disorders, including psychosis. For some of these patients, symptoms of depression improved upon cessation of AVONEX.

5.2 Hepatic Injury

Severe hepatic injury, including cases of hepatic failure, has been reported rarely in patients taking AVONEX. Asymptomatic elevation of hepatic transaminases has also been reported, and in some patients has recurred upon rechallenge with AVONEX. In some cases, these events have occurred in the presence of other drugs that have been associated with hepatic injury. The potential risk of AVONEX used in combination with known hepatotoxic drugs or other products (e.g., alcohol) should be considered prior to starting AVONEX, or before starting hepatotoxic drugs. Patients should be monitored for signs of hepatic injury [see Warnings and Precautions (5.8)].

5.3 Anaphylaxis and Other Allergic-Reactions

Anaphylaxis has been reported as a rare complication of AVONEX use. Other allergic reactions have included dyspnea, oedema, skin rash and urticaria. Discontinue AVONEX if anaphylaxis or other allergic reactions occur.

5.4 Congestive Heart Failure

Patients with pre-existing congestive heart failure should be monitored for worsening of their cardiac condition during initiation of and continued treatment with AVONEX. While beta interferons do not have any known direct cardiac toxicity, during the post-marketing period cases of congestive heart failure, cardiomyopathy, and cardiomyopathy with congestive heart failure have been reported in patients without known predisposition to these events, and without other etiologies being established. In some cases, these events have been temporally related to the administration of AVONEX. In some of these instances recurrence upon rechallenge was observed.

5.5 Decreased Peripheral Blood Counts

Decreased peripheral blood counts in all cell lines, including rare pancytopenia and thrombocytopenia, have been reported from postmarketing experience in AVONEX-treated patients [see Adverse Reactions (6.2)]. In some cases, platelet counts were below 10,000/microliter. Some cases recurred without rechallenge [see Adverse Reactions (6.2)]. Patients should be monitored for symptoms or signs of decreased blood counts.

5.6 Seizures

Seizures have been temporally associated with the use of beta interferons in clinical trials and postmarketing safety surveillance. In the two placebo-controlled studies in multiple sclerosis (Studies 1 and 2), 4 patients receiving AVONEX experienced seizures, while no seizures occurred in the placebo group [see Clinical Studies (14)]. Three of these 4 patients had no prior history of seizure [see Adverse Reactions (6.1)]. It is not known whether these events were related to the effects of multiple sclerosis alone, to AVONEX, or to a combination of both.

5.7 Autoimmune Disorders

Post-marketing reports of autoimmune disorders of multiple target organs in AVONEX-treated patients included idiopathic thrombocytopenia, hyper- and hypoclymphocytosis, and rare cases of autoimmune hepatitis. If AVONEX-treated patients develop a new autoimmune disorder, consider stopping the therapy.

5.8 Laboratory Tests

In addition to those laboratory tests normally required for monitoring patients with multiple sclerosis, complete blood and differential white blood cell counts, platelet counts, and blood chemistries, including liver function tests, are recommended during AVONEX therapy [see Warnings and Precautions (5.2, 5.5, 5.7)]. Patients with myelosuppression may require more intensive monitoring of complete blood cell counts, with differential and platelet counts. Thyroid function should be monitored periodically. If patients have or develop symptoms of thyroid dysfunction (hypo- or hyperthyroidism), thyroid function tests should be performed according to standard medical practice.

6 ADVERSE REACTIONS

The following serious adverse reactions are discussed in more detail in other sections of labeling:

- Depression, Suicide, and Psychotic Disorders [see Warnings and Precautions (5.1)]
- Hepatic Injury [see Warnings and Precautions (5.2)]
- Anaphylaxis and Other Allergic-Reactions [see Warnings and Precautions (5.3)]
- Congestive Heart Failure [see Warnings and Precautions (5.4)]
- Decreased Peripheral Blood Counts [see Warnings and Precautions (5.5)]
- Seizures [see Warnings and Precautions (5.6)]
- Autoimmune Disorders [see Warnings and Precautions (5.7)]
- Laboratory Tests [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 AVONEX cannot be directly compared to rates in clinical trials of other drugs and may not reflect the rates observed in practice.

Among 351 patients with relapsing forms of MS treated with AVONEX 30 micrograms (including 319 patients treated for 6 months and 28 patients treated for greater than one year) the most commonly reported adverse reactions (at least 5% more frequent on AVONEX than on placebo) were flu-like symptoms. Symptoms can include chills, fever, myalgia and asthenia occurring within hours to days following an injection. Most people who take AVONEX have flu-like symptoms early during the course of therapy. Usually, these symptoms last for a day after the injection. For many people, these symptoms lessen or go away over time. The most frequently reported adverse reactions resulting in clinical intervention (for example, discontinuation of AVONEX or the need for concomitant medication to treat an adverse reaction symptom) were flu-like symptoms and depression.

Table 2 enumerates adverse reactions that occurred with AVONEX-treated patients at an incidence of at least 2% more than that observed in the placebo-treated patients in the pooled placebo-controlled studies in patients with relapsing forms of MS [see Clinical Studies (14)].

<table>
<thead>
<tr>
<th>Adverse Reaction</th>
<th>Placebo (N = 333)</th>
<th>AVONEX (N = 351)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body as a Whole</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td>55%</td>
<td>58%</td>
</tr>
<tr>
<td>Flu-like symptoms</td>
<td>29%</td>
<td>49%</td>
</tr>
<tr>
<td>(otherwise unspecified)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>21%</td>
<td>23%</td>
</tr>
<tr>
<td>Asthenia</td>
<td>18%</td>
<td>24%</td>
</tr>
<tr>
<td>Fever</td>
<td>9%</td>
<td>20%</td>
</tr>
<tr>
<td>Chills</td>
<td>5%</td>
<td>19%</td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Injection site pain</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Infection</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Injection site inflammation</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td>Chest pain</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>Injection site reaction</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Toothache</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Nervous System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>14%</td>
<td>18%</td>
</tr>
<tr>
<td>Dizziness</td>
<td>12%</td>
<td>14%</td>
</tr>
<tr>
<td>Respiratory System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper respiratory tract infection</td>
<td>12%</td>
<td>14%</td>
</tr>
<tr>
<td>Sinusitis</td>
<td>12%</td>
<td>14%</td>
</tr>
<tr>
<td>Bronchitis</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>Digestive System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nauses</td>
<td>19%</td>
<td>23%</td>
</tr>
<tr>
<td>Musculoskeletal System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myalgia</td>
<td>22%</td>
<td>29%</td>
</tr>
<tr>
<td>Arthralgia</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>Urogenital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urinary tract infection</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>Urine constituents abnormal</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td>Skin and Appendages</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alopecia</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Special Senses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye disorder</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Hemic and Lymphatic System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injection site ecchymosis</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Anemia</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>Cardiovascular System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migraine</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Vasodilation</td>
<td>0%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Immunogenicity

Anaphylaxis and other allergic reactions have occurred in AVONEX-treated patients [see Warnings and Precautions (5.3)]. As with all therapeutic proteins, there is a potential for immunogenicity. In studies assessing immunogenicity in multiple sclerosis patients administered AVONEX for at least 1 year, 5% (21 of 390 patients) showed the presence of neutralizing antibodies at one or more times.

These data reflect the percentage of patients whose test results were considered positive for antibodies to AVONEX using a two-tiered assay (ELISA binding assay followed by an antiviral cytopathic effect assay), and are highly dependent on the sensitivity and specificity of the assay. Additionally, the observed incidence of neutralizing activity in an assay may be influenced by several factors including sample handling, timing of sample collection, concomitant medications, and underlying disease. For these reasons, comparison of the incidence of antibodies to AVONEX with the incidence of antibodies to other products may be misleading.

6.2 Postmarketing Experience

The following additional adverse reactions have been identified during post-approval use of AVONEX. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

- Menorrhagia and metrorrhagia
- Rash (including vesicular rash)
- Rare cases of injection site abscess or cellulitis requiring surgical intervention

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Pregnancy Category C: There are no adequate and well-controlled studies in pregnant women. AVONEX should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

In pregnant monkeys given interferon beta at 100 times the recommended weekly human dose (based upon a body surface area [mg/m²] comparison), no teratogenic or other adverse effects on fetal development were observed. Abortifacient activity was evident following 3 to 5 doses at this level. No abortifacient effects were observed in monkeys treated at 2 times the recommended weekly human dose (based upon mg/m²).

8.3 Nursing Mothers

It is not known whether AVONEX is excreted in human milk.

8.4 Pediatric Use

Safety and effectiveness in pediatric patients have not been established.

8.5 Geriatric Use

Clinical studies of AVONEX did not include sufficient numbers of patients aged 65 and over to determine whether they respond differently than younger patients.

17 PATIENT COUNSELING INFORMATION

See FDA-approved patient labeling (Medication Guide and Patient’s Instructions for Use).

Instruct patients to carefully read the supplied AVONEX Medication Guide and caution patients not to change the AVONEX dose or schedule of administration without medical consultation.

17.1 Instruction on Self-injection Technique and Procedures

Provide appropriate instruction for reconstitution of AVONEX and methods of self-injection, including careful review of the AVONEX Medication Guide. Instruct patients in the use of aseptic technique when administering AVONEX.

Inform patients that their healthcare provider should show them or their caregiver how to prepare and inject AVONEX before administering the first dose. Their healthcare provider should watch the first AVONEX injection given. Tell patients not to re-use needles or syringes and instruct patients on safe disposal procedures. Inform patients to dispose of used needles and syringes in a puncture-resistant container and instruct the patient regarding safe disposal of full containers.

Advise patients:

- of the importance of rotating areas of injection with each dose to minimize the likelihood of injection site reactions. [see Choose an Injection Site section of the Medication Guide]
- NOT to inject area of the body where the skin is irritated, reddened, bruised, infected or scarred in any way
- to check the injection site after 2 hours for redness, swelling, or tenderness
- to contact their doctor or nurse if they have a skin reaction and it does not clear up in a few days

17.2 Pregnancy

Advise patients that AVONEX should not be used during pregnancy unless the potential benefit justifies the potential risk to the fetus [see Use in Special Population (8.1)].

17.3 Depression

Advise patients of the symptoms of depression, suicidal ideation, or psychotic disorders as they have been reported with the use of AVONEX and instruct patients to report them immediately to their physician [see Warnings and Precautions (5.1)].

17.4 Liver Disease

Advise patients that severe hepatic injury, including hepatic failure, has been reported during the use of AVONEX. Advise patients of symptoms of hepatic dysfunction, and instruct patients to report them immediately to their physician [see Warnings and Precautions (5.2)].

17.5 Allergic Reactions and Anaphylaxis

Advise patients of the symptoms of allergic reactions and anaphylaxis, and instruct patients to seek immediate medical attention if these symptoms occur [see Warnings and Precautions (5.3)].

17.6 Congestive Heart Failure

Advise patients that worsening of pre-existing congestive heart failure has been reported in patients using AVONEX. Advise patients of symptoms of worsening cardiac condition, and instruct patients to report them immediately to their physician [see Warnings and Precautions (5.1)].

17.7 Seizures

Advise patients that seizures have been reported in patients using AVONEX. Instruct patients to report seizures immediately to their physician [see Warnings and Precautions (5.6)].

17.8 Flu-like Symptoms

Inform patients that flu-like symptoms are common following initiation of therapy with AVONEX [see Dosage and Administration (2.3) and Adverse Reactions (6)]. Advise patients that starting with a lower dose than 30 micrograms and increasing the dose over 3 weeks reduces the incidence and severity of flu-like symptoms.

Manufactured by:
BIOGEN IDEC INC.
14 Cambridge Center
Cambridge, MA 02142 USA
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1-800-456-2255
Revised 02/2012
AAN Opens Doors to New Headquarters

On April 27, 2012, the American Academy of Neurology moved into its new state-of-the-art headquarters in the historic Mill District of downtown Minneapolis, Minnesota.

“After more than 62 years, the AAN has moved into a permanent headquarters building that is designed to meet the ever-increasing needs of our leadership, members, and staff. We are thrilled to be part of one of the most vibrant and diverse areas of Minneapolis,” said Catherine M. Rydell, CAE, Executive Director and CEO of the Academy.

“The Academy has long outgrown its current facility in St. Paul as we have taken on greater responsibilities to serve our members,” Rydell continued. “The Board and executive staff weighed the options available to the organization—whether to continue to lease a building, buy an existing structure, or design and construct our own. We concluded that this was the best opportunity to ensure the long-term viability of our organization. By building a headquarters specifically designed to accommodate the way the Academy and its staff work, we will be able to best serve the current and future needs of our members.”

The AAN’s lease on its current 35,000 square-foot St. Paul facility expires in July 2012. It would be challenging to stay in the St. Paul complex, which was built in 1968 and added to in 1987. Significant remodeling would be needed to comply with ADA requirements and to accommodate staff growth (many are now working in hallways or shared offices). The building’s aging infrastructure (including roof, HVAC, restrooms) requires extensive improvements. On-site parking has reached its limit and there is minimal access to mass transit. There is inadequate conference space for staff meetings or hosting AAN member committee meetings.

The new headquarters provides the Academy with space commensurate to its needs in the 21st century as the largest association of neurologists and the largest trade association in the Twin Cities:

• The five-story, 63,000 square-foot building features a street-level sensory garden, roof-top terrace, and state-of-the-art meeting space capabilities. The Academy will be applying for LEED certification of the new building.

• With its proximity to light rail transit, the Twin Cities airport and numerous hotels, restaurants and theaters, the historic Mill District is an ideal destination for Academy staff and the hundreds of neurologists who will be traveling to Minneapolis each year to attend Academy meetings.

• The new building was funded using City of Minneapolis Recovery Zone Facility Bonds, which are designed to encourage capital investment and are funded through the American Recovery and Reinvestment Act of 2009. The balance was provided from Academy reserves.

“This is a building that everyone who is associated with the Academy can be proud of,” said Rydell, “and we look forward to welcoming any member who comes to Minneapolis.”

How to Reach Us

The American Brain Foundation (formerly the AAN Foundation) and United Council for Neurologic Subspecialties (UCNS) also will move to Minneapolis with the Academy. The new mailing address is 201 Chicago Avenue South, Minneapolis, MN 55415.

The Academy’s toll-free phone numbers will remain the same:

• AAN Member Services: (800) 879-1960
• AAN Foundation: (866) 770-7570
• Neurology® journal: (800) 957-3182

International members will need to use the following numbers:

• AAN Member Services: (612) 928-6000
• AAN Foundation: (612) 928-6300
• Neurology® journal: (612) 928-6400

The phone number for UCNS is (612) 928-6050.

Phone numbers for individual staff members have changed, however email addresses remain the same. An updated staff directory is available in the Membership area at AAN.com.
May 11 Is Deadline for 2013 Annual Meeting Education Program Proposals

The deadline to submit proposals for new education programs for the 2013 Annual Meeting in San Diego is May 11, 2012.

Programs and proposals will be reviewed by associated topic work groups comprised of Section members, general practitioners, topic experts, or Education Committee members. Recommendations will be forwarded to the Education Committee, which will determine the final program in June. Notifications will be sent by the end of August 2012.

Submit your course proposal online at www.aan.com/go/am12/education/proposal. For more information, contact Amy Nostdahl at anostdahl@aan.com or (612) 928-6033.

Complete Online Evaluations for Education Programs and Scientific Sessions to Receive CME

Attendees of Annual Meeting Education Programs and Scientific Sessions who wish to receive CME must go online at www.aan.com/view/2012eval and complete the evaluation forms. The form must be completed to receive CME. If the forms are not completed, no CME will be given. The deadline to submit your request for CME is May 7.

iPosters Allow Members to See Scientific Posters They May Have Missed

Members who missed the Annual Meeting or just missed the chance to see select scientific posters in a presentation or session can still look them up quickly and conveniently online. AAN iPosters is a state-of-the-art program that provides users the opportunity to view abstracts that have been uploaded by their authors in an interactive, fully searchable database. Users have the ability to magnify the abstract content for detailed viewing, contact the author directly with comments and/or questions, bookmark abstracts for easy access on return visits, and much more. The iPosters will be available to view for six months. Visit aan.posterview.com to get started.

Taylor Hammer Lanska Edition

- Bigger—9.25 inches, 6.6 ounces
- Stronger—solid steel construction
- Soft, yet resilient bumper

www.aan.com/store

Signature Product
Signature items are developed with member input, designed specifically for neurologists, and are available exclusively through the AAN Store.
Introducing the first and only FDA-approved treatment for pseudobulbar affect (PBA)\(^1\)

NUEDEXTA\(^\text{TM}\) is the first and only FDA-approved treatment for pseudobulbar affect (PBA). NUEDEXTA is an innovative combination of two well-characterized components; dextromethorphan hydrobromide (20 mg), the ingredient active in the central nervous system, and quinidine sulfate (10 mg), a metabolic inhibitor enabling therapeutic dextromethorphan concentrations. NUEDEXTA acts on sigma-1 and NMDA receptors in the brain, although the mechanism by which NUEDEXTA exerts therapeutic effects in patients with PBA is unknown.

NUEDEXTA is indicated for the treatment of pseudobulbar affect (PBA). PBA occurs secondary to a variety of otherwise unrelated neurological conditions, and is characterized by involuntary, sudden, and frequent episodes of laughing and/or crying. PBA episodes typically occur out of proportion or incongruent to the patient’s underlying emotional state. Studies to support the effectiveness of NUEDEXTA were performed in patients with amyotrophic lateral sclerosis (ALS) and multiple sclerosis (MS). NUEDEXTA has not been shown to be safe and effective in other types of emotional lability that can commonly occur, for example, in Alzheimer’s disease and other dementias. The primary outcome measure, laughing and crying episodes, was significantly lower in the NUEDEXTA arm compared to placebo. The secondary outcome measure, the Center for Neurologic Studies Lability Scale (CNS-LS), demonstrated a significantly greater mean decrease in CNS-LS score from baseline for the NUEDEXTA arm compared to placebo.

NUEDEXTA Important Safety Information

NUEDEXTA can interact with other medications causing significant changes in blood levels of those medications and/or NUEDEXTA. NUEDEXTA is contraindicated in patients receiving drugs that both prolong QT interval and are metabolized by CYP2D6 (e.g., thioridazine and pimozide) and should not be used concomitantly with other drugs containing quinidine, quinine, or mefloquine. NUEDEXTA is contraindicated in patients taking monoamine oxidase inhibitors (MAOIs) or in patients who have taken MAOIs within the preceding 14 days.

About NUEDEXTA

NUEDEXTA\(^\text{TM}\) is the first and only FDA-approved treatment for pseudobulbar affect (PBA). NUEDEXTA is an innovative combination of two well-characterized components; dextromethorphan hydrobromide (20 mg), the ingredient active in the central nervous system, and quinidine sulfate (10 mg), a metabolic inhibitor enabling therapeutic dextromethorphan concentrations. NUEDEXTA acts on sigma-1 and NMDA receptors in the brain, although the mechanism by which NUEDEXTA exerts therapeutic effects in patients with PBA is unknown.

NUEDEXTA is indicated for the treatment of pseudobulbar affect (PBA). PBA occurs secondary to a variety of otherwise unrelated neurological conditions, and is characterized by involuntary, sudden, and frequent episodes of laughing and/or crying. PBA episodes typically occur out of proportion or incongruent to the patient’s underlying emotional state. Studies to support the effectiveness of NUEDEXTA were performed in patients with amyotrophic lateral sclerosis (ALS) and multiple sclerosis (MS). NUEDEXTA has not been shown to be safe and effective in other types of emotional lability that can commonly occur, for example, in Alzheimer’s disease and other dementias. The primary outcome measure, laughing and crying episodes, was significantly lower in the NUEDEXTA arm compared to placebo. The secondary outcome measure, the Center for Neurologic Studies Lability Scale (CNS-LS), demonstrated a significantly greater mean decrease in CNS-LS score from baseline for the NUEDEXTA arm compared to placebo.

NUEDEXTA Important Safety Information

NUEDEXTA can interact with other medications causing significant changes in blood levels of those medications and/or NUEDEXTA. NUEDEXTA is contraindicated in patients receiving drugs that both prolong QT interval and are metabolized by CYP2D6 (e.g., thioridazine and pimozide) and should not be used concomitantly with other drugs containing quinidine, quinine, or mefloquine. NUEDEXTA is contraindicated in patients taking monoamine oxidase inhibitors (MAOIs) or in patients who have taken MAOIs within the preceding 14 days.
Reconnect affect to emotion—with NUEDEXTA™

**Significant relief from involuntary outbursts of crying and/or laughing**1-3

- Reductions from baseline may be seen within the first week of treatment
- Efficacy was sustained over the course of 12 weeks
- The need for continued treatment should be reassessed periodically, as spontaneous improvement of PBA symptoms occurs in some patients

**Helps patients achieve episode remission**2

- Half of all patients taking NUEDEXTA were episode-free over their final 14 days in the study

Visit NUEDEXTA.com for more information

NUEDEXTA is contraindicated in patients with a known hypersensitivity to its components.

NUEDEXTA may cause serious side effects, including possible changes in heart rhythm. NUEDEXTA is contraindicated in patients with a prolonged QT interval, congenital long QT syndrome or a history suggestive of torsades de pointes, in patients with heart failure as well as patients with, or at risk of, complete atrioventricular (AV) block, unless the patient has an implanted pacemaker.

NUEDEXTA causes dose-dependent QTc prolongation. When initiating NUEDEXTA in patients at risk of QT prolongation and torsades de pointes, electrocardiographic (ECG) evaluation of QT interval should be conducted at baseline and 3-4 hours after the first dose.

The most common adverse reactions in patients taking NUEDEXTA are diarrhea, dizziness, cough, vomiting, asthenia, peripheral edema, urinary tract infection, influenza, increased gamma-glutamyltransferase, and flatulence.

NUEDEXTA may cause dizziness. Precautions to reduce the risk of falls should be taken, particularly for patients with motor impairment affecting gait or a history of falls.

Patients should take NUEDEXTA exactly as prescribed. Patients should not take more than 2 capsules in a 24-hour period, make sure that there is an approximate 12-hour interval between doses, and not take a double dose after they miss a dose.

These are not all the risks from use of NUEDEXTA. For additional important safety information about NUEDEXTA, please see the full Prescribing Information at www.NUEDEXTA.com.

Please see Brief Summary of full Prescribing Information on adjacent page.


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NUEDEX™ (dextromethorphan HBR and quinidine sulfate) Capsules

Brief Summary of Prescribing Information
See full Prescribing Information

INDICATIONS AND USAGE

NUEDEX™ is indicated for the treatment of pseudobulbar affect (PBA). PBA occurs secondary to a variety of otherwise unrelated neurological conditions, and is characterized by involuntary, sudden, and inappropriate episodes of laughter and/or crying that are out of proportion or incongruent to the underlying emotional state. Studies to support the effectiveness of NUEDEX™ were performed in patients with amyotrophic lateral sclerosis (ALS), Parkinson's disease (PD), motor neuron disease (MND), and other neurologic conditions.

DOSE AND ADMINISTRATION

The recommended dose of NUEDEX™ (20 mg dextromethorphan hydrobromide and 10 mg quinidine sulfate) is one capsule daily by mouth for the initial seven days of therapy. On the eighth day of therapy and thereafter, the daily dose should be a total of five capsules daily divided over three meals.

ADVERSE REACTIONS

A total of 946 patients participated in four Phase 3 controlled and uncontrolled PBA studies and received at least one dose of the combination product of dextromethorphan hydrobromide/quinidine sulfate in various strengths at the recommended or higher than the recommended dose. In a 12-week, placebo-controlled study (N=526), the most common reported adverse reactions included cough (22%), nasopharyngitis (7%), headache (6%), and constipation (3%) among patients treated with NUEDEX™. The incidence of adverse reactions in these studies was not significantly different from placebo. The most commonly reported adverse reactions for patients treated with NUEDEX™ were dyspepsia (3%), metapneumonia (3%), and nausea (3%). The most common adverse drug reactions (0.5% - 1.5%) included asthenia (2.5%), dizziness (3%), nasopharyngitis (3%), and upper respiratory tract infection (2%). The most common treatment-emergent adverse reactions that were not reported in placebo were cough (13%), nasopharyngitis (10%), and headache (3%).

WARNING AND PRECAUTIONS

In humans, a single moderate dose of several hundred milligrams can cause dose-dependent QTc prolongation, which can cause torsades de pointes-type ventricular tachycardia, with a risk of sudden, and frequent episodes of laughing and/or crying. PBA episodes typically occur early in the morning or early evening, at slow waking or a slow rate of speech. PBA can recur at a single dose.

Drug Interactions

Drugs that Prolong QT and are Metabolized by CYP2D6: Do not use NUEDEX™ with monoamine oxidase inhibitors (MAOIs) or in patients who have taken MAOIs within the preceding 14 days due to the risk of serious and possibly fatal drug interactions, including serotonin syndrome. At least 14 days after stopping NUEDEXTA, a MAOI (see Drug Interactions (7.1 in full PI)) Cardiovascular: NUEDEX™ is contraindicated in patients with a prolonged QT interval, congenital long QT syndrome or a history suggestive of torsades de pointes, and patients with heart failure (see Drug Interactions (5.3 in full PI)). Patients receiving drugs that both prolong QT interval and are metabolized by CYP2D6 (e.g., thioridazine and pimozide), as effects on QT interval may be increased (see Drug Interactions (7.1 in full PI)).

Labor and Delivery:

NUEDEX™ is a pregnancy Category C drug. It is not known whether the drug undergoes or quinidine is suspected, as cross-sensitivity can occur. Quinidine-induced anaphylaxis, myocardial infarction, and angina pectoris. At least 14 days after stopping NUEDEX™, a MAOI (see Drug Interactions (7.1 in full PI)) Cardiovascular:

Concomitant use of NUEDEX™ with other drugs that prolong QT interval and are metabolized by CYP2D6 (e.g., thioridazine and pimozide), as effects on QT interval may be increased (see Drug Interactions (7.1 in full PI)).

Concomitant Use of Drugs Substrates:

CYP3A4: Drugs with strong or moderate CYP3A4 inhibition (e.g., ketoconazole or fluconazole) can increase the risk of adverse renal and hepatic impairment. In dextromethorphan and/or quinidine are prescribed concomitantly, the initial dose of dextromethorphan may be reduced. The use of dextromethorphan may be reduced, as the risk of QTc prolongation increases as prolongation increases. When initiating NUEDEX™ in at-risk patients, the risk of QTc prolongation can cause torsades de pointes-type ventricular tachycardia, with a risk of sudden, and frequent episodes of laughing and/or crying. PBA episodes typically occur early in the morning or early evening, at slow waking or a slow rate of speech. PBA can recur at a single dose.

DOSAGE AND ADMINISTRATION

The recommended dose of NUEDEX™ (20 mg dextromethorphan hydrobromide and 10 mg quinidine sulfate) is one capsule daily by mouth for the initial seven days of therapy. On the eighth day of therapy and thereafter, the daily dose should be a total of five capsules daily divided over three meals. The need for further treatment should be reassessed periodically, as spontaneous improvement of PBA occurs in some patients.

CONTRAINDICATIONS

General: Use of concomitant drugs: NUEDEX™ contains quinidine, and should not be used concomitantly with other drugs containing quinidine, quinine, or mefloquine. Hypersensitivity: NUEDEX™ is contraindicated in patients with a history of NUEDEX™, rash, bronchospasm, edema, hemolytic anemia, vasculitis, uveitis, angioneurotic edema, depression or lupus-like syndrome; also in patients with known hypersensitivity to dextromethorphan (see Warnings and Precautions (5.1 in full PI)). MAOIs: NUEDEX™ is contraindicated in patients who have taken MAOIs who have taken MAOIs who have taken MAOIs within the preceding 14 days due to the risk of serious and possibly fatal drug interactions, including serotonin syndrome. At least 14 days after stopping NUEDEXTA, a MAOI (see Drug Interactions (7.1 in full PI)) Cardiovascular: NUEDEX™ is contraindicated in patients with a prolonged QT interval, congenital long QT syndrome or a history suggestive of torsades de pointes, and patients with heart failure (see Drug Interactions (5.3 in full PI)). Patients receiving drugs that both prolong QT interval and are metabolized by CYP2D6 (e.g., thioridazine and pimozide), as effects on QT interval may be increased (see Drug Interactions (7.1 in full PI)).

WARNINGS AND PRECAUTIONS

Thrombocytopenia and Other Hypersensitivity Reactions: Quinidine can cause immune-mediated thrombocytopenia that can be severe or fatal. Non-specific symptoms, such as lightheadedness, chills, fever, nausea, and vomiting, can precede or occur with thrombocytopenia, and the thrombocytopenia should be discontinued if it occurs, unless the thrombocytopenia is not drug-related, as continued use increases the risk for fatal hemorrhage. Likewise, NUEDEX™ should not be restarted in sensitized patients, because the risk of severe and more severe thrombocytopenia, NUEDEX™ should not be used if immune-mediated thrombocytopenia from structurally related drugs include quinidine and mefloquine is suspected, as cross-sensitivity can occur. Quinidine-associated thrombocytopenia usually resolves within a few days following discontinuation of the sensitizing drug. Quinidine has also been associated with a lupus-like syndrome involving polyarthritis, sometimes with a positive ANA. Other associations include rash, bronchospasm, edema, hemolytic anemia, vasculitis, uveitis, angioneurotic edema, dyspepsia, gastroesophageal reflux disease, and gastroenteritis. The sicca syndrome, myalgia, elevated serum levels of skeletal muscle enzymes, and pneumonitis. Hepatotoxicity: Hepatotoxicity has been reported in patients receiving dextromethorphan hydrobromide/quinidine sulfate tablets. In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%). In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%). In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%).

SPECIFIC POPULATIONS

Hypersensitivity: NUEDEX™ is contraindicated in patients with a history of NUEDEX™, rash, bronchospasm, edema, hemolytic anemia, vasculitis, uveitis, angioneurotic edema, dyspepsia, gastroesophageal reflux disease, and gastroenteritis. The sicca syndrome, myalgia, elevated serum levels of skeletal muscle enzymes, and pneumonitis. Hepatotoxicity: Hepatotoxicity has been reported in patients receiving dextromethorphan hydrobromide/quinidine sulfate tablets. In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%). In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%). In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%). In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%). In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%). In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%). In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%). In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%). In a 12-week, placebo-controlled study (N=326), the most common adverse reactions (incidence ≥ 5%) were diarrhea (13%), dizziness (10%), cough (7%), and headache (4%).
Foundation to Honor Late ALS Researcher Olney

The American Brain Foundation (formerly the AAN Foundation) has established the Richard K. Olney ALSA-American Brain Foundation Clinician Scientist Award in ALS. The three-year award, co-sponsored by the ALS Association, honors the legendary researcher who died at age 64 of ALS in January after an eight-year battle with the disease. Tribute gifts made to the foundation's ALS Fund in memory of Olney will support the award.

Olney was founder and director of the ALS Treatment and Research Center at the University of California-San Francisco before he was diagnosed with ALS in 2004 and turned over the reins to Catherine Lomen-Hoerth, MD, PhD. Lomen-Hoerth was Olney’s former student who went on to become his physician.

“This is an incredible initiative to honor Rick Olney’s legacy and his work in ALS as an advocate, researcher, clinician, and teacher. It will be inspirational for the recipient of this award to hear about his life and strive to follow in his footsteps,” said Lomen-Hoerth, who is a past recipient of an AAN Foundation clinical research training fellowship. “As a recipient myself of a clinical research training fellowship in the past, it was an essential springboard for me to enter the field of ALS research. I am grateful to these organizations for providing this fellowship and for honoring Rick Olney and his family in this special way.”

Olney graduated with a BS in chemistry, mathematics, and zoology from the University of Oklahoma; Baylor College of Medicine for his medical degree; UCLA for his training in psychiatry; and University of Oregon Health Sciences Center for his training in neurology. He was an academic neurologist who served as full-time faculty of the University of California, San Francisco School of Medicine since 1986. He became professor of neurology in 1989. His extensive research into ALS led to the founding of the ALS Treatment and Research Center at UCSF.

Following his ALS diagnosis, Olney was public about his battle with the disease and worked to ensure the clinic would continue after his departure. Lomen-Hoerth took over his duties at the ALS Center and directed her mentor’s care. While most people diagnosed with ALS die within two years, Olney lived to see his two children marry and the birth of his first grandchild.

For more information about the Richard K. Olney ALSA-American Brain Foundation Clinician Scientist Award in ALS, contact Terry Heinz at (612) 928-6082. To make a donation to the ALS Fund in memory of Olney, contact Susan C. Dunlop, MBA, CFRE, at (866) 770-7570.

Teva Provides Largest Unrestricted Research Grant Ever to American Brain Foundation

continuing from cover

“As in these times of reduced research funding from traditional sources, this gift is as timely as it is generous,” said John C. Mazziotta, MD, PhD, chair of the American Brain Foundation.

Teva has been a major Foundation supporter since 2005, when it began providing grants for what was then known as the AAN Foundation Gala at Annual Meetings. When the Foundation Gala became the Celebration for Research event in 2008, Teva support was redirected to support fundraising through the event.

As the AAN is underwriting the Celebration for Research, this new grant from Teva now moves its support directly to research. Teva will now fund the first payment for six fellowships at the rate of $37,500 per recipient.

The goal of the American Brain Foundation research program is to have 30 recipients receiving foundation funding in any given year, making it the second largest funder of neurologic research behind the National Institute for Neurological Disorders and Stroke. Since the foundation launched the program in 1994, more than 130 young investigators have jump-started their careers with Clinical Research Training Fellowships. Along with the benefits of having protected time to pursue their research, the recipients increase their likelihood of receiving support from the National Institutes of Health or securing an academic position.

For more information about the American Brain Foundation or Clinical Research Training Fellowships, visit www.CureBrainDisease.org or contact Susan C. Dunlop, MBA, CFRE, at sdunlop@aahn.com or (866) 770-7570, ext. 2701.
Foundation Friends

The American Brain Foundation (formerly the American Academy of Neurology Foundation) greatly appreciates gifts and pledges received from the following donors between February 1 and February 29, 2012. Cumulative annual gifts and pledges of $1,000 or more are recognized as Champions Circle members, and gifts and pledges of $100 and greater are recognized as Foundation Friends in AANnews.

For secure online giving options, visit www.aan.com/foundation/donations. For more information about the American Brain Foundation programs, contact Susan C. Dunlop, MBA, CFRE, at sdunlop@aan.com or (866) 770-7570 Ext. 2701.

“I want to thank those who have been kind enough to let me share in their generosity, specifically Dr. Larry Eisner and the Potamkin family. They have made me fortunate enough to both be able to give back to my profession and realize that I’ve received much more than I’ve given.”

—Barry Baumel, MD
(pictured with wife Carolyn)
AAN Member since 1981

ANNUAL FUND
($1,000–$4,999)
Yuen T. So, MD, PhD*+

($100–$499)
Lynn M. and Matthew E. Simmons, MD
Michael E. Shy, MD+

AAN Residents Fund
($500–$999)
J.R. Singleton, MD+
A.G. Smith, MD, FAAN+

THE FUND FOR BRAIN RESEARCH
– Provides Clinical Research Training Fellowships to the Most Qualified Applicants
($1,000–$4,999)
Alexander R. Lerner*

($100–$499)
Nadine Attal, MD, PhD+

Multiple Sclerosis Research
($100–$499)
Ankje Derbyshire
Margaret Fletcher
(In honor of Marise Rinkel)
Linda and Donald Smith
Alice and Henry Tucker
Henny Cross-Somsen

Parkinson’s Disease Research
($100–$499)
Margaret Fletcher
(In honor of Marise Rinkel)
Linda and Donald Smith
Alice and Henry Tucker
Henny Cross-Somsen

BAUMEL-EISNER ALZHEIMER’S AND DEMENTIA RESEARCH ENDOWMENT FUND
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Barry Baumel, MD*

MULTIPLE SCLEROSIS RESEARCH AND PATIENT CARE TRAINING FELLOWSHIP ENDOWMENT
($100–$499)
Norma Hescheles
(In memory of Judith Rosenberg)
Matthew J. Dunlop
(In honor of Heather Dunlop)

NEURO-INFECTIOUS DISEASE RESEARCH ENDOWMENT
($100–$499)
William R. Tyor, MD, FAAN

*Denotes 2011 Champions Circle member
+Denotes Honoraria Donor
UPCOMING DATES AND DEADLINES

MAY 15
UCNS Behavioral Neurology & Neuropsychiatry Certification Examination Application Deadline
www.ucns.org/go/subspecialty/behavioral/certification
Todd Bulson
tbulson@ucns.org, (612) 928-6067

MAY 16
Ready, Set, Payment: Using Certified EHRs for Meaningful Use Payments (Register by May 15)
www.aan.com/go/practice/coding/conferences
Christi Kokaisel
ckokaisel@aam.com, (612) 928-6052

JUNE 1
UCNS Fellowship Training Program Accreditation Application Deadline
www.ucns.org
Amanda Carpenter
acarpenter@ucns.org, (612) 928-6065

JUNE 9–12
European Neurological Society Meeting
www.congrex.ch/ens2012

JUNE 12
The ABCs of Coding (Register by June 11)
www.aan.com/go/practice/coding/conferences
Christi Kokaisel
ckokaisel@aam.com, (612) 928-6052

JULY 16
UCNS Neural Repair and Rehabilitation Certification Examination Application Deadline
www.ucns.org/go/subspecialty/neuralrepair/certification
Todd Bulson
tbulson@ucns.org, (612) 928-6067

MAY 15
UCNS Neural Repair and Rehabilitation Certification Examination Application Deadline
www.ucns.org/go/subspecialty/neuralrepair/certification
Todd Bulson
tbulson@ucns.org, (612) 928-6067

JUNE 2
UCNS Fellowship Training Program Accreditation Application Deadline
www.ucns.org
Amanda Carpenter
acarpenter@ucns.org, (612) 928-6065

JUNE 9–12
European Neurological Society Meeting
www.congrex.ch/ens2012

JUNE 12
The ABCs of Coding (Register by June 11)
www.aan.com/go/practice/coding/conferences
Christi Kokaisel
ckokaisel@aam.com, (612) 928-6052

JULY 16
UCNS Neural Repair and Rehabilitation Certification Examination Application Deadline
www.ucns.org/go/subspecialty/neuralrepair/certification
Todd Bulson
tbulson@ucns.org, (612) 928-6067

INTRODUCING

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Confronting the challenges of epilepsy treatment

Epilepsy is considered one of the most common neurological disorders, affecting approximately 1% of the world’s population.1 Despite the introduction of numerous antiepileptic drugs (AEDs) within the past 2 decades,1 the therapeutic management of epilepsy continues to pose numerous challenges, including refractory disease and the occurrence of breakthrough seizures.2,3

One of the most significant barriers to successful anticonvulsant therapy is patient noncompliance. Some studies report that more than 50% of people with epilepsy forget or fail to take their medication as prescribed.4 The reasons for this may include excessive pill burden, inconvenient dosing schedules, and disruptive side effects that are challenging for patients to manage.4,5 Compliance with epileptic medication is especially crucial, as missed doses can lead to substantial fluctuations in serum blood levels and, as a result, additional side effects and breakthrough seizures.4,5 For patients with epilepsy, even one seizure event can have a substantially negative impact on quality of life and independence.6

Considering the benefits of extended-release formulations

Extended-release formulations of AEDs can offer significant advantages over their immediate-release counterparts, including less frequent dosing and near constant blood serum levels.6 Once-daily dosing has been shown to improve compliance and may also offer a psychological benefit to patients who perceive each pill as an unpleasant reminder of their disease.5 The ability of extended-release medications to provide a steady serum state can translate to fewer side effects and improved seizure control, making these medications important additions to the epilepsy treatment armamentarium.5,6

Improving therapy with Supernus XR Technologies

At Supernus, we are actively applying our portfolio of patented technologies to the task of improving clinical outcomes and the patient experience with therapy. We have a rich legacy of improving existing compounds in order to release the full potential of established therapies. Today, we remain committed to the continued enhancement of epilepsy, attention-deficit hyperactivity disorder, and other CNS disorders.7

To learn more about how our technology can change the future of CNS therapy, please visit us at www.supernus.com.

And please stop by our booth at the 64th American Academy of Neurology Annual Meeting, taking place in New Orleans, LA, April 21 - 28, 2012.

Neurologist (MS Specialist) - Charlotte NC
The Neurology Department at CMC is seeking a Neurologist, specialist in MS to join their high caliber team of faculty providers and well-known MS Center. Qualified candidates will be BC/BE in Neurology with extensive experience in treating MS. Ideal candidates will be AMCONE fellowship trained in MS and have an interest in education and research. The MS Center offers state-of-the-art resources along with an active clinical research program supported by 10 research coordinators and assistants. The clinical practice includes on-site rheumatologists, occupational therapists, speech therapists, social workers and a dietician. CMC Neurology offers an attractive hybrid model of private practice and academics. The Neurology faculty has the flexibility to see patients in physically attractive clinic, teach residents and medical students, and participate in clinical research. The MS Center is situated near uptown Charlotte in a beautiful residential area. Carolinas HealthCare System (CHS) is a not-for-profit, self-supporting public organization. It is the largest health care provider in the Carolinas and one of the largest public systems in the nation. Charlotte, NC is a growing and vibrant city and is 2 hours from the mountains of NC and 3-4 hours from the beaches of NC and SC. To send a CV for consideration, email ebriggs@cejkasearch.com. Tracey Black, Physician Recruiter, P (704) 355-0159/(800) 847-5084, email tracey.black@carolinahealthcare.org.

Charlotte Metro Area
Outstanding opportunity for BE/BC General Neurologist (EEG interpretation required) to join busy and established practice located in Gastonia, NC, just minutes from Charlotte, one of the fastest growing cities in the country. Sub specialty interest in headache, multiple sclerosis or epilepsy would also be supported. Active medical staff of over 300 physicians representing all medical sub specialties serves a patient base of over 300,000 people. This opportunity offering competitive compensation package including RVU based compensation, generous benefits and relocation allowance. Week-end Call is 1-5 with one week-night call per week. CarolMed Medical Group operates under the guidance of a physician-led Governance Committee allowing for an active partnership with the Medical Staff. Located just minutes from international airport and uptown Charlotte, the area offers amenities of any large metropolitan city including professional sports, the performing arts and upscale shopping and dining while providing residents of Gastonia the benefits of living in a small, family oriented community with lovely neighborhoods and good choice of public and private schools. If interested and considered for this opportunity, please send CV to: Celia G. Billings, Manager, Physician, Recruiter, CarolMed Health Care, 2240 Remount Road, Gastonia, NC 28054, Telephone: 704-834-2153, Fax: 704-834-4615. Email: BillingsC@carolmedhealthcare.org. www.carolmedhealthcare.org

Medical Director - Sleep Medicine
Hartford, Connecticut. The Department of Pediatrics at Connecticut Children's Medical Center seeks a board certified sleep specialist. This is a key position to develop and grow, and strategically plan for the overall Development of the program. In this position, you will participate in the growth of the current program which is supported by the Pulmonary and ENT Divisions. Their goal is to open an outpatient satellite facility in the current program which is supported by the Pulmonary and ENT Divisions. Their goal is to open an outpatient satellite facility. For more information, please visit Geisinger’s website at www.geisinger.edu. Geisinger Wyoming Valley Medical Center - Geisinger Health System (GHS) is seeking a stroke neurologist, a general neurologist, a neurointerventionalist, and an aging brain specialist to join their rapidly expanding Neurosciences Institute at Geisinger Wyoming Valley (GVM) Medical Center. Wilkes-Barre, PA. Located 2.5 hours from New York City and Philadelphia, this region offers an excellent quality of life with access to cultural and recreational activities and affordable housing. Geisinger Health System serves nearly 3.5 million people in Northeastern and Central Pennsylvania and has been nationally recognized for innovative practices and quality care. A mature electronic health record connects a comprehensive network of 2 hospitals, 38 community practice sites and more than 800 Geisinger primary and specialty care physicians. For more information, visit Geisinger’s website at www.geisinger.edu or 1-800-945-7112.

Research Fellowship with Clinical Opportunity
Research fellowship for work on imaging, epilepsy and cognitive neurosci- ence at Comprehensive Epilepsy Center of Hofstra North Shore (LSU) School of Medicine, Manhasset, NY. Fellowship will fund MD, DO, or MD/PhD fellowship research fellow under mentorship of a team of physi- cians and scientists to engage in research using neuroimaging and electrophysiology to improve diagnosis and treatment of epilepsy and further the basic science functional brain mapping. For detailed description about the lab and representative publications see: http://www.fiebienstein.org/Feinstein/Laboratory/for Multimodal+Human+Brain+Mapping. Candidates should meet the following qualifications as mandated by New York State: 1) M.D., D.O., or M.D./Ph.D. degree, 2) United States citizen, national, or permanent resident; 3) Have graduated from or be currently enrolled in a residency training program or fellowship. This fellowship is part of the New York State ECTRIP program, and there is possibility to supplement salary with clinical revenue. Email ahe@nmsu.edu.

Stoke Neurologist/Director of Stroke Services
SSHS Medical Group is seeking a Stroke Neurologist at St. Elizabeth’s Hospital in Belleville, Illinois - 20 minutes from St. Louis. Physician will develop a dedicated stroke unit to provide inpatient/consulta-
New Orleans April 20, 2012 thru April 26, 2012. Please call during this time using the cell phone number to schedule an interview: cell (504) 999-0900.

Neurologists

Well-established, quality controlled neuroscience group seeks accomplished neurologists to join our team including a rehabilitative neurologist, pediatric neurologist, and general neurologist. We are a multidisciplinary neuroscience group providing a strongly collaborative environment and opportunities for professionals. Group offers excellent access to the cultural institutions of Boston, the ocean, as well as outstanding private and public school opportunities for children. Send CV to Howard M. Gardner, M.D., Medical Director, New England Neurological Associates, 354 Merrimack Street, Lawrence, MA 01843, or e-mail to ochsnerphysician@gmail.com. Visit our website at www.ochsner.org.

Clinical Neurologist. No ER call. High pay. Great city. Do you want to be happy again? I have a great job opportunity. I have no restrictions on how many days you work or what you do within the scope of Neurology. You will be paid based on what you bill, not collect – split equally. If you work a four day work week and take 6 full weeks off a year you will still have a very generous income. Life is good as well in Spokane, Washington. I don’t take ER call and there would be no need for you to take ER call either. I take call for my patients only and I would want to split that with you. That’s the easy part. Give me a call or email before it’s too late. You can also check us out at http://ochsner.com

Neuro-Hospitalist Practitioner in Neurology in the Beautiful Black Hills. Our employed Neurology/PM&R group is seeking to add another Neuro-Hospitalist Practitioner to our team of Neurologists and two Physiatrists due to the pending retirement of our founding candidate. Candidates should be BE/BC in General Neurology and interested in doing in-patient work. Rapid City Regional Hospital is a fully accredited Stroke Center with an attached, in-patient and out-patient Rehabilitation Institute. Guaranteed salary plus production bonus; full benefits; sign-on bonus; and moving expenses are provided. Rapid City is a clean, safe, small city of 75,000 (120,000 metropolitan area) located on the eastern slopes of the beautiful Black Hills of western South Dakota on I-90 and at the doorstep of unlimited year-around recreation. Five National Parks are within an hour’s drive. Our regional airport is served by seven air lines and connects directly with major national airports. Local schools are excellent and include two universities. Cost of living is low and there is no state income tax. Unemployment in Rapid City is below 4.5%, and there is no housing crisis. For more information, please contact: Scott Zieske, CMSR, FNASD, Director-Physician Recruitment, Regional Health, Rapid City, South Dakota 57701. 800-885-2623; zieskej@regionalhealth.com

Adult Neurologist

We are seeking a Board Certified or Eligible Adult Neurologist to join our practice in the western suburbs of Chicago. The position is available July 1, 2012, but the starting date is negotiable. The group consists of three Board Certified Neurologists. Ability to do EMG and EEG would be helpful. The practice is located in a lovely community, with excellent schools, and easy access to downtown Chicago. Compensation package is competitive. Please contact us for more information. Email rntneurologist@bidgobig.net

Neuro-Hospitalist

We are looking for a board certified neurologist, with or without fellowship training, to work as a neurohospitalist in a busy active practice which currently has four board certified neurologists. Situated in suburban Los Angeles. Email cmsg@bizla.rr.com

Neurologist

Opportunity for an experienced neurologist to join our team. University of Massachusetts Medical School is seeking a neurologist with fellowship training in Movement Disorders with knowledge in mapping, DBS programming, and chemodenervation. Motor Unit Lead, Ochsner Neurological Associates, 354 Merrimack Street, Lawrence, MA 01843, or e-mail to ochsnerphysician@ gmail.com, or call (800) 488-2240 for additional information. Refer #AGN094. EOE. Sorry, no J-1 visa opportunities available.

General Neurology & Vascular/Interventional Neurology

Ochsner Health System seeks to add a fellowship-trained Interventional Neuroradiologist to the Stroke and Neuro-Critical Care Division of the Department of Neurology. These physicians will become a part of Ochsner Health System’s growing 21st century Neurology Department. This neurology team includes neurologists with subspecialty expertise in stroke, neurointensive care, movement disorders, epilepsy, pain management, neuroimmunology, neuromuscular disorders, and neurocritical care. Teaching involvement with medical students and residents is encouraged but not required. The telemedicine stroke program at Ochsner Medical Center-North Shore is integrated with our large tertiary care center on Jefferson Highway in New Orleans. In addition, North Shore will have the availability of neuro-subspecialists in movement disorders, epilepsy, cognitive disorders, and MS on a regular and periodic basis. The North Shore Region offers an excellent referral base with over 100 physicians and mid-level providers with ten locations in five communities. Ochsner Health System is a physician-led, non-profit, academic, multi-specialty, healthcare delivery system employing over 800 physicians and providing care at Ochsner Medical Center, Ochsner Baptist Medical Center, Ochsner Kenner Medical Center and Ochsner Metairie Medical Center, each a teaching hospital preparing University of New Orleans School of Medicine students. Ochsner Health System is a non-profit healthcare delivery system. We enjoy the advantage of practicing in a favorable malpractice environment in Louisiana. Please visit our website, www.ochsner.org for more information. Ochsner Health System and The University of Queensland School of Medicine in Brisbane, Australia began a unique, joint partnership in 2009 by opening the University of Queensland School of Medicine Clinical School at Ochsner, providing U.S. medical students with an unprecedented educational experience. New Orleans is a cosmopolitan, historic city with a pleasant climate, unique architecture, multiple medical schools and academic centers, professional sports teams, world-class dining and cultural interests, and world-renowned entertainment and music. Please e-mail CV to ochsnerphysician@ gmail.com, or call (800) 488-2240 for additional information. Refer #AGN094. EOE. Sorry, no J-1 visa opportunities available.

Neurointensivist/Neurovascular

Ochsner Health System in New Orleans is seeking a Board Certified/Board Eligible Neuroradiologist with fellowship training in Neuroradiology or Neurointerventional Radiology to join its large tertiary referral program. Interest in acute stroke care, participation in a stroke fellowship training program, teaching in a neurology residency program, care of neurosurgical patients is a plus. We offer a very active and an active tertiary referral program for neurosurgical disease are all important. Interest in neuroscience is preferred but not required. Both trained and experienced physicians are encouraged to apply. Dignity Health is currently seeking a fellowship-trained neurologist with expertise in stroke, neurointensive care, movement disorders, epilepsy, pain management, neuroimmunology, neuromuscular disorders, and neurocritical care. Dignity Health is a non-profit, women-led, multi-specialty healthcare delivery system. We employ over 800 physicians, and our system includes 8 hospitals and more than 38 health centers. We also enjoy the advantage of practicing in a favorable malpractice environment in Arizona. Please visit our website, www.dignityhealth.org for more information. Dignity Health Neuroscience and The University of Queensland School of Medicine in Brisbane, Australia began a unique, joint partnership in 2009 by opening the University of Queensland School of Medicine Clinical School at Dignity Health-Sunrise, providing U.S. medical students with an unprecedented educational experience. New Orleans is a cosmopolitan, historic city with a pleasant climate, unique architecture, multiple medical schools and academic centers, professional sports teams, world-class dining and cultural interests, and world-renowned entertainment and music. Please e-mail CV to ochsnerphysician@gmail.com, or call (800) 488-2240 for additional information. Refer #AGN094. EOE. Sorry, no J-1 visa opportunities available.

Neurology

Neurologist Baltimore, Maryland area. Seeking BC/BE neurologist to join a busy highly respected suburban general neurology private practice, affiliated with several local community and teaching hospitals. Excellent opportunity for BC/BE neurologist with preferred but not mandatory. Flexible compensation and benefits package with early partnership available for qualified candidate. Locum enjoys reasonable cost of living enhanced by many cultural, recreation and educational opportunities. Please visit website at www.taylormedicalgroup.com. Detail contacted information and resume to: Richard L. Taylor, MD FAAN, Taylor Medical Group, 22 West Road, Suite 101, Towson, MD 21204-2398.

Neurologist

Experience what Fortune magazine calls one of the most “livable” cities in the US. The Austin Diagnostic Clinic, located in the heart of the Texas hill country, is a 115-physician multi-specialty clinic founded in 1952. We are seeking a BC/BE neurologist to join our 5-physician neurology section. Texas medical license is a plus. Competitive salary and benefits. Relocation stipend. Partnership potential after 1 year. For more information about the Clinic see our website www.ADClinic.com. Please email CV to scarrell@aADClinic.com or fax to 512-901-3984.

Academic Movement Disorders Specialist

Opportunity for an Academic Movement Disorders specialist to join the Department of Neurological Sciences Faculty at the University of Nebraska Medical Center. This thriving Movement Disorders Program performs more than 3,000 outpatient visits per year, has a busy DBS and Chemodenervation program, and is member of the Parkinson Study Group. Ideal candidates would be BC/BE neurologist, with fellowship training in Movement Disorders with knowledge in subspecialty-specific diagnostics and therapeutics including brain mapping, DBS programming, and chemodenervation. Motor Unit Lead, Ochsner Neurological Associates, 354 Merrimack Street, Lawrence, MA 01843, or e-mail to ochsnerphysician@gmail.com. Call (800) 488-2240 for additional information. Refer #AGN094. EOE. Sorry, no J-1 visa opportunities available.

Academic Neurointensivist

The University of Nebraska Medical Center, Omaha, NE 68198-2045. Phone 402-559-4496. Email: dmurman@umcnec.org. UNMC is an equal opportunity employer. Individuals from diverse backgrounds are encouraged to apply.

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VIMPAT® (lacosamide) Tablets, CV
VIMPAT® (lacosamide) Injection, CV
VIMPAT® (lacosamide) Oral Solution, CV

Brief Summary of Full Prescribing Information
(See Package Insert for Full Prescribing Information)

Rx Only

INDICATIONS AND USAGE

Partial-Onset Seizures
VIMPAT (lacosamide) tablets and oral solution are indicated as adjunctive therapy in the treatment of partial-onset seizures in patients with epilepsy aged 17 years and older. VIMPAT (lacosamide) injection for intravenous use is indicated as adjunctive therapy in the treatment of partial-onset seizures in patients with epilepsy aged 17 years and older when oral administration is temporarily not feasible.

CONTRAINDICATIONS

None.

WARNINGS AND PRECAUTIONS

Suicidal Behavior and Ideation
Antiepileptic drugs (AEDs), including VIMPAT, increase the risk of suicidal thoughts or behavior in patients taking these drugs for any indication. Patients treated with any AED for any indication should be monitored for the emergence or worsening of depression, suicidal thoughts or behavior, and/or any unusual changes in mood or behavior.

Pooled analyses of 199 placebo-controlled clinical trials (mono- and adjunctive therapy) of 11 different AEDs showed that patients randomized to one of the AEDs had a risk approximately twice the risk (adjusted Relative Risk 1.8, 95% CI: 1.2, 2.7) of suicidal thinking or behavior compared to patients randomized to placebo. In these trials, which had a median treatment duration of 12 weeks, the estimated incidence of suicidal behavior or ideation among 27,863 AED-treated patients was 0.43%, compared to 0.24% among 16,029 placebo-treated patients, representing an increase of approximately one case of suicidal thinking or behavior for every 530 patients treated. There were four suicides in drug-treated patients in the trials and none in placebo-treated patients, but the number of events is too small to allow any conclusion about drug effect on suicide.

The increased risk of suicidal thoughts or behavior with AEDs was observed as early as one week after starting treatment with AEDs and persisted for the duration of treatment assessed. Because most trials included in the analysis did not extend beyond 24 weeks, the risk of suicidal thoughts or behavior beyond 24 weeks could not be assessed.

The risk of suicidal thoughts or behavior was generally consistent across drugs in the data analyzed. The finding of increased risk with AEDs of varying mechanisms of action and across a range of indications suggests that the risk applies to all AEDs used for any indication. The risk did not vary substantially by age (5-100 years) in the clinical trials analyzed.

Table 1 shows absolute and relative risk by indication for all evaluated AEDs.

<table>
<thead>
<tr>
<th>Indication</th>
<th>Placebo Patients with Events Per 1000 Patients</th>
<th>Drug Patients with Events Per 1000 Patients</th>
<th>Relative Risk: Incidence of Events in Drug Patients/Incidence in Placebo Patients</th>
<th>Risk Difference: Additional Drug Patients/Events Per 1000 Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epilepsy</td>
<td>1.0</td>
<td>3.4</td>
<td>3.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>5.7</td>
<td>8.5</td>
<td>1.5</td>
<td>2.9</td>
</tr>
<tr>
<td>Other</td>
<td>1.0</td>
<td>1.8</td>
<td>1.9</td>
<td>0.9</td>
</tr>
<tr>
<td>Total</td>
<td>2.4</td>
<td>4.3</td>
<td>1.8</td>
<td>1.9</td>
</tr>
</tbody>
</table>

The relative risk for suicidal thoughts or behavior was higher in clinical trials for epilepsy than in clinical trials for psychiatric or other conditions, but the absolute risk differences were similar.

Anyone considering prescribing VIMPAT or any other AED must balance this risk with the risk of untreated illness. Epilepsy and many other illnesses for which antiepileptics are prescribed are themselves associated with morbidity and mortality and an increased risk of suicidal thoughts and behavior. Should suicidal thoughts and behavior emerge during treatment, the prescriber needs to consider whether the emergence of these symptoms in any given patient may be related to the illness being treated.

Patients, their caregivers, and families should be informed that AEDs increase the risk of suicidal thoughts and behavior and should be advised of the need to be alert for the emergence or worsening of signs and symptoms of depression, any unusual change in mood or behavior, or the emergence of suicidal thoughts, behavior, or thoughts about self-harm. Behaviors of concern should be reported immediately to healthcare providers.

Dizziness and Ataxia
Patients should be advised that VIMPAT may cause dizziness and ataxia. Accordingly, they should be advised not to drive a car or to operate other complex machinery until they are familiar with the effects of VIMPAT on their ability to perform such activities.

In patients with partial-onset seizures taking 1 to 3 concomitant AEDs, dizziness was experienced by 25% of patients randomized to the recommended doses (200 to 400 mg/day) of VIMPAT (compared with 8% of placebo patients) and was the adverse event most frequently leading to discontinuation (3%). Ataxia was experienced by 6% of patients randomized to the recommended doses (200 to 400 mg/day) of VIMPAT (compared to 2% of placebo patients). The onset of dizziness and ataxia was most commonly observed during titration. There was a substantial increase in these adverse events at doses higher than 400 mg/day.

[see Adverse Reactions/Table 2 (6.1)]

Cardiac Rhythm and Conduction Abnormalities

PR interval prolongation
Dose-dependent prolongations in PR interval with VIMPAT have been observed in clinical studies in patients and in healthy volunteers [see Clinical Pharmacology (12.2) in Full Prescribing Information]. In clinical trials in patients with partial-onset epilepsy, asymptomatic first-degree atrioventricular (AV) block was observed as an adverse reaction in 0.4% (4/944) of patients randomized to receive VIMPAT and 0% (0/364) of patients randomized to receive placebo. In clinical trials in patients with diabetic neuropathy, asymptomatic first-degree AV block was observed as an adverse reaction in 0.5% (5/1023) of patients receiving VIMPAT and 0% (0/291) of patients receiving placebo. Second-degree or higher AV block has been reported in postmarketing experience in epilepsy patients. When VIMPAT is given with other drugs that prolong the PR interval, further PR prolongation is possible. Patients should be made aware of the symptoms of second-degree or higher AV block (e.g., slow or irregular pulse, feeling of lightheadedness and fainting) and told to contact their physician should any of these occur.

VIMPAT should be used with caution in patients with known conduction problems (e.g., marked first-degree AV block, second-degree or higher AV block and sick sinus syndrome without pacemaker), or with severe cardiac disease such as myocardial ischemia or heart failure. In such patients, obtaining an ECG before beginning VIMPAT, and after VIMPAT is titrated to steady-state, is recommended.

Atrial fibrillation and Atrial flutter
In the short-term investigational trials of VIMPAT in epilepsy patients, there were no cases of atrial fibrillation or flutter, however, both have been reported in open label epilepsy trials and in postmarketing experience. In patients with diabetic neuropathy, 0.5% of patients treated with VIMPAT experienced an adverse reaction of atrial fibrillation or atrial flutter, compared to 0% of placebo-treated patients. VIMPAT administration may predispose to atrial arrhythmias (atrial fibrillation or flutter), especially in patients with diabetic neuropathy and/or cardiovascular disease. Patients should be made aware of the symptoms of atrial fibrillation and flutter (e.g., palpitations, rapid pulse, shortness of breath) and told to contact their physician should any of these symptoms occur.

Syncope
In the short-term controlled trials of VIMPAT in epilepsy patients with no significant system illnesses, there was no increase in syncpe compared to placebo. In the short-term controlled trials of VIMPAT in patients with diabetic neuropathy, 1.2% of patients who were treated with VIMPAT reported an adverse reaction of syncope or loss of consciousness, compared to 0% of placebo-treated patients with diabetic neuropathy. Most of the cases of syncpe were observed in patients receiving doses above 400 mg/day. The cause of syncope was not determined in most cases. However, several were associated with either changes in orthostatic blood pressure, atrial flutter/fibrillation (and associated tachycardia), or bradycardia.

Withdrawal of Antiepileptic Drugs (AEDs)
As with all AEDs, VIMPAT should be withdrawn gradually (over a minimum of 1 week) to minimize the potential of increased seizure frequency in patients with seizure disorders.

Multiorgan Hypersensitivity Reactions
One case of symptomatic hepatitis and nephritis was observed among 4011 subjects exposed to VIMPAT during clinical development. The event occurred in a healthy volunteer, 10 days after stopping VIMPAT treatment. The subject was not taking any concomitant medication and potential known viral etiologies for hepatitis were ruled out. The subject fully recovered within a month, without specific treatment. The case is consistent with a delayed multiorgan hypersensitivity reaction. Additional potential cases included 2 with rash and elevated liver enzymes and 1 with myocarditis and hepatitis of uncertain etiology.

Multiorgan hypersensitivity reactions (also known as Drug Reaction with Eosinophilia and Systemic Symptoms, or DRESS) have been reported with other anticonvulsants and typically, although not exclusively, present with fever and rash associated with other organ system involvement, such as liver or kidney, or may not include eosinophilia, hepatitis, nephritis, lymphadenopathy, and/or myocarditis. Because this disorder is variable in its expression, other organ system signs and symptoms not noted here may occur. If this reaction is suspected, VIMPAT should be discontinued and alternative treatment started.
Phenytoin

VIMPAT oral solution contains asparatame, a source of phenylalanine. A 200 mg dose of VIMPAT oral solution (equivalent to 20 mL) contains 0.32 mg of phenylalanine.

ADVERSE REACTIONS

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 practice.

In all controlled and uncontrolled trials in patients with partial-onset seizures, 1327 patients have received VIMPAT of whom 1000 have been treated for longer than 6 months and 852 for longer than 12 months.

Clinical Trials Experience

Controlled Trials

Adverse reactions leading to discontinuation

In controlled clinical trials, the rate of discontinuation as a result of an adverse event was 8% and 17% in patients randomized to receive VIMPAT at the recommended doses of 200 and 400 mg/day, respectively, 29% at 600 mg/day, and 5% in patients randomized to receive placebo. The adverse events most commonly (>1% in the VIMPAT total group and greater than placebo) leading to discontinuation were dizziness, ataxia, vomiting, diplopia, nausea, vertigo, and vision blurred.

Most common adverse reactions

Table 2 gives the incidence of treatment-emergent adverse events that occurred in ≥2% of adult patients with partial-onset seizures in the total VIMPAT group and for which the incidence was greater than placebo. The majority of adverse events in the VIMPAT patients were reported with a maximum intensity of "mild" or "moderate".

Table 2: Treatment-Emergent Adverse Event Incidence in Double-Blind, Placebo-Controlled Partial-Onset Seizure Trials (Events ≥2% of Patients in VIMPAT Total and More Frequent Than in the Placebo Group)

<table>
<thead>
<tr>
<th>System Organ Class/ Preferred Term</th>
<th>Placebo N=364</th>
<th>VIMPAT 200 mg/day N=270</th>
<th>VIMPAT 400 mg/day N=471</th>
<th>VIMPAT 600 mg/day N=203</th>
<th>VIMPAT TOTAL N=944</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ear and labyrinth disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertigo</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Eye disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diplopia</td>
<td>2</td>
<td>6</td>
<td>10</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Vision blurred</td>
<td>3</td>
<td>2</td>
<td>9</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Gastrointestinal disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td>4</td>
<td>7</td>
<td>7</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Vomiting</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>3</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>General disorders and administration site conditions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatigue</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Gait disturbance</td>
<td>&lt;1</td>
<td>&lt;1</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Asthenia</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Injury, poisoning and procedural complications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confusion</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Skin laceration</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Nervous system disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dizziness</td>
<td>8</td>
<td>16</td>
<td>30</td>
<td>53</td>
<td>31</td>
</tr>
<tr>
<td>Headache</td>
<td>9</td>
<td>11</td>
<td>14</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Ataxia</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Somnolence</td>
<td>5</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Tremor</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Nystagmus</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Balance disorder</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Memory impairment</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Psychiatric disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Skin and subcutaneous disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pruritus</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Laboratory abnormalities

Abnormalities in liver function tests have been observed in controlled trials with VIMPAT in adult patients with partial-onset seizures who were taking 1 to 3 concomitant anti-epileptic drugs. Elevations of ALT to ≥3×ULN occurred in 0.7% (7/935) of VIMPAT patients and 0% (0/356) of placebo patients. One case of hepatitis with transaminases >20×ULN was observed in one healthy subject 10 days after VIMPAT treatment completion, along with nephritis (proteinuria and urine casts). Serologic studies were negative for viral hepatitis. Transaminases returned to normal within one month without specific treatment. At the time of this event, bilirubin was normal. The hepatitis/nephritis was interpreted as a delayed hypersensitivity reaction to VIMPAT.

Other Adverse Reactions in Patients with Partial-Onset Seizures

The following is a list of treatment-emergent adverse events reported by patients treated with VIMPAT in all clinical trials in patients with partial-onset seizures, including controlled trials and long-term open-label extension trials. Events addressed in other tables or sections are not listed here. Events included in this list from the controlled trials occurred more frequently on drug than on placebo and were based on consideration of VIMPAT pharmacology, frequency above that expected in the population, seriousness, and likelihood of a relationship to VIMPAT. Events are further classified within system organ class.

Blood and lymphatic system disorders: neutropenia, anemia
Cardiac disorders: palpitations
Ears and labyrinth disorders: tinnitus
Gastrointestinal disorders: constipation, dyspepsia, dry mouth, oral hypoesthesia
General disorders and administration site conditions: tiredness, pyrexia, feeling drunk
Injury, poisoning, and procedural complications: fall
Musculoskeletal and connective tissue disorders: muscle spasms
Nervous system disorders: paresthesia, cognitive disorder, hypoesthesia, dysarthria, disturbance in attention, cerebellar syndrome
Psychiatric disorders: confusional state, mood altered, depressed mood

Intravenous Adverse Reactions

Adverse reactions with intravenous administration generally appeared similar to those observed with the oral formulation, although intravenous administration was associated with local adverse events such as injection site pain or discomfort (2.5%), irritation (1%), and erythema (0.5%). One case of profound bradycardia (26 bpm: SBP 100/60 mmHg) was observed in a patient during a 15 minute infusion of 150 mg VIMPAT. This patient was on a beta-blocker. Infusion was discontinued and the patient experienced a rapid recovery.

Comparison of Gender and Race

The overall adverse event rate was similar in male and female patients. Although there were few non-Caucasian patients, no differences in the incidences of adverse events compared to Caucasian patients were observed.

Postmarketing Experience

The following adverse reactions have been identified during postapproval use of VIMPAT. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

Cardiac disorders: Atroventricular block, atrial fibrillation, atrial flutter, bradycardia
Immune system disorders: drug hypersensitivity reactions
Psychiatric disorders: Aggression, agitation, insomnia, psychotic disorder
Skin and subcutaneous tissue disorders: Angioedema, rash, urticaria

Drug Interactions

Drug-drug interaction studies in healthy subjects showed no pharmacokinetic interactions between VIMPAT and carbamazepine, valproate, digoxin, metformin, omeprazole, or an oral contraceptive containing ethinylestradiol and levonorgestrel. There was no evidence for any relevant drug-drug interaction of VIMPAT with common AEDs in the placebo-controlled clinical trials in patients with partial-onset seizures [see Clinical Pharmacology (12.3) in Full Prescribing Information].

The lack of pharmacokinetic interaction does not rule out the possibility of pharmacodynamic interactions, particularly among drugs that affect the heart conduction system.

USE IN SPECIFIC POPULATIONS

Pregnancy

Pregnancy Category C

Lacosamide produced developmental toxicity (increased embryofetal and perinatal mortality, growth defects) in rats following administration during pregnancy. Developmental neurotoxicity was observed in rats following administration during a period of postnatal development corresponding to the third trimester of human pregnancy. These effects were observed at doses associated with clinically relevant plasma exposures.
Lacosamide has been shown in vitro to interfere with the activity of collapsin response mediator protein-2 (CRMP-2), a protein involved in neuronal differentiation and control of axonal outgrowth. Potential adverse effects on CNS development can not be ruled out.

There are no adequate and well-controlled studies in pregnant women. VIMPAT should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Oral administration of lacosamide to pregnant rats (20, 75, or 200 mg/kg/day) and rabbits (6.25, 12.5, or 25 mg/kg/day) during the period of organogenesis did not produce any teratogenic effects. However, the doses evaluated were limited by maternal toxicity in both species and embryofetal death in rats. These doses were associated with maternal plasma lacosamide exposures (area under the plasma-time concentration curve; (AUC)) = 2 and 1 times (rat and rabbit, respectively) that in humans at the maximum recommended human dose (MRHD) of 400 mg/day.

When lacosamide (25, 70, or 200 mg/kg/day) was orally administered to rats throughout gestation, parturition, and lactation, increased perinatal mortality and decreased body weights were observed in the offspring at the highest dose. The no-effect dose for pre- and post-natal developmental toxicity in rats (70 mg/kg/day) was associated with a maternal plasma lacosamide AUC approximately equal to that in humans at the maximum recommended human dose (MRHD) of 400 mg/day.

Oral administration of lacosamide (30, 90, or 180 mg/kg/day) to rats during the neonatal and juvenile periods of postnatal development resulted in decreased brain weights and long-term neurobehavioral changes (altered open field performance, deficits in learning and memory). The early postnatal period in rats is generally thought to correspond to late pregnancy in humans in terms of brain development. The no-effect dose for developmental neurotoxicity in rats was associated with a plasma lacosamide AUC approximately 0.5 times that in humans at the MRHD.

The safety and effectiveness of VIMPAT in pediatric patients <17 years have not been established.

Lacosamide has been shown in vitro to interfere with the activity of CRMP-2, a protein involved in neuronal differentiation and control of axonal outgrowth. Potential adverse effects on CNS development can not be ruled out. Administration of lacosamide to rats during the neonatal and juvenile periods of postnatal development resulted in decreased brain weights and long-term neurobehavioral changes (altered open field performance, deficits in learning and memory). The no-effect dose for developmental neurotoxicity in rats was associated with a plasma lacosamide exposure (AUC) approximately 0.5 times the human plasma AUC at the maximum recommended human dose of 400 mg/day.

VIMPAT tablets, VIMPAT injection and VIMPAT oral solution

Manufactured for
UCB, Inc.
Smyrna, GA 30080

VIMPAT® is a registered trademark under license from Harris FRC Corporation and covered by one or more claims of U.S. Patent 38,551.

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At the first sign of failure, count on VIMPAT—a first-in-class AED for the adjunctive treatment of partial-onset seizures in adults.

- Patients achieved greater reduction in seizure frequency
- Proven efficacy with the broadest range of AEDs
- Power that was generally well tolerated
- The first novel mechanism of action in 10 years
- Available in multiple formulations to meet patients’ needs

VIMPAT® tablets and oral solution are indicated as adjunctive therapy in the treatment of partial-onset seizures in patients with epilepsy who are 17 years and older. VIMPAT® injection is indicated as short-term replacement when oral administration is not feasible in these patients.

Important Safety Information

Warnings and Precautions

AEDs increase the risk of suicidal behavior and ideation. Patients taking VIMPAT® should be monitored for the emergence or worsening of depression, suicidal thoughts or behavior, and/or any unusual changes in mood or behavior.

Patients should be advised that VIMPAT® may cause dizziness, ataxia, and syncope. Caution is advised for patients with known cardiac conduction problems, who are taking drugs known to induce PR interval prolongation, or with severe cardiac disease. In patients with seizure disorders, VIMPAT® should be gradually withdrawn to minimize the potential of increased seizure frequency. Multiorgan hypersensitivity reactions have been reported with antiepileptic drugs. If this reaction is suspected, treatment with VIMPAT® should be discontinued.

VIMPAT® oral solution contains aspartame, a source of phenylalanine. A 200 mg dose of VIMPAT® oral solution (equivalent to 20 mL) contains 0.32 mg of phenylalanine.

Dosage adjustments are recommended for patients with mild or moderate hepatic impairment or severe renal impairment. Use in severe hepatic impairment patients is not recommended.

Common Adverse Reactions

The most common adverse reactions occurring in ≥10 percent of VIMPAT®-treated patients, and greater than placebo, were dizziness, headache, nausea, and diplopia.

Please see adjacent pages for Brief Summary of full Prescribing Information.

References:
1. IMS Health Plan Claims database, November 2009. UCB calculations
2. SDI Health LLC. SDI’s Vector One®: Total Patient Tracker (TPT), April 2009-September 2011. Yardley, PA: SDI Health LLC.