26th Annual Update

NEUROLOGY 2018

OCTOBER 8–12, 2018 • CAMBRIDGE, MA

UPDATES and STATE-of-the-ART PRACTICES for INPATIENT and OUTPATIENT NEUROLOGY

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Treatment Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to improve outcomes for common conditions</td>
<td>Updates for pharmacologic treatment</td>
</tr>
<tr>
<td>Guidance for challenging cases</td>
<td>How to optimize your use of imaging</td>
</tr>
<tr>
<td>New options for diagnosis</td>
<td>Instruction to improve clinical reasoning</td>
</tr>
<tr>
<td>Comprehensive treatment strategies</td>
<td>Can’t-miss diagnoses</td>
</tr>
<tr>
<td>Updates for pharmacologic treatment</td>
<td>The newest guidelines</td>
</tr>
</tbody>
</table>

Neurological Examination

- Neuroimaging

- Challenging Cases

- Optimized Outcomes

- Updates in sleep medicine
- Expert opinions on errors and risk management
- State-of-the-art treatments of neurologic pain

Register at Neurology.HMSCME.com

This course sold out last year. Early registration advised.

Martin A. Samuels, MD
Tracey A. Milligan, MD

Earn up to 32.50 AMA PRA Category 1 Credits™
32.50 AAFP Prescribed credits
Dear Colleague,

Every year, there are a staggering number of critically important updates that need to be understood and incorporated into the practice of neurology to ensure optimal patient care. This special update synthesizes this vast amount of information and presents it with efficiency and effectiveness to ensure that you are current with these updates and the best ways to incorporate them into practice.

Over the course of a week, you will be immersed in an impactful and inspiring neurology learning experience. The faculty, the leading clinical educators at Harvard Medical School, provide a learning experience that delivers:

- Guidance for clinical reasoning and approaches to enable you to practice state-of-the-art neurology
- Case studies and dedicated time for you to pose your specific questions to leaders in their respective fields of neurology and delve into how information presented in this course can be used in your specific clinical setting
- Practical knowledge that you can “take home” and immediately apply to patient care

Year after year, attendees report they are inspired by the knowledge transfer and find the experience to be invaluable to their clinical practice, understanding of neurologic diseases, diagnostic skills and treatment outcomes.

I hope you will join us in October for this important and rewarding educational experience.

Sincerely,

Martin A. Samuels, MD  
Course Director

Miriam Sydney Joseph Professor of Neurology  
Harvard Medical School  
Chair, Department of Neurology  
Brigham and Women's Hospital

Register at Neurology.HMSCME.com
Reasons to Attend

- The new guidelines for epilepsy, stroke, neuromuscular disorders
- Comprehensive updates for treatment of neurologic pain
- Expert instruction for neuro-ophthalmology
- Expanded options to diagnose and treat dementia
- Improved management of headache
- Best practices for treatment of neurologic autoimmune disorders
- Steps to ensure delivery of high-quality care in the emergency room and in outpatient settings
- Techniques to effectively manage epilepsy and psychogenic non-epileptic seizures
- Best practices in neuro-oncology
- New insights and best practices for myelopathy and other spinal cord disorders
- Expanded options to treat movement disorders
- Updates in sleep medicine
- State-of-the-art approaches to concussion and coma
- Expanded options to diagnose and treat the causes of dizziness
- Alcohol and the nervous system: what we now know
- Use of genetic tests
- Optimal use of imaging

Harvard Medical School Faculty

- Anthony A. Amato, MD
- Aaron L. Berkowitz, MD, PhD
- Shamik Bhattacharyya, MD
- Ellen J. Bubrick, MD
- Rebecca Burch, MD
- Michael E. Charness, MD
- Kirk R. Daffner, MD
- Amar Dhand, MD, DPhil
- Christopher T. Doughty, MD
- Barbara A. Dworetzky, MD
- Steven K. Feske, MD
- Christopher Gilligan, MD
- Michael T. Hayes, MD
- Galen V. Henderson, MD
- Saef Izzy, MD
- Tamara B. Kaplan, MD
- Joshua P. Klein, MD, PhD
- Eudocia Quant Lee, MD, MPH
- Jong Woo Lee, MD, PhD
- Robert M. Mallery, MD
- Joseph B. Martin, MD, PhD
- Scott M. McGinnis, MD
- Tracey A. Milligan, MD
- Edison K. Miyawaki, MD
- William J. Mullally, MD
- Lakshmi Nayak, MD
- Peter Novak, MD, PhD
- Mary Angela O’Neal, MD
- Milena Pavlova, MD
- page B. Pennell, MD
- David M. Pilgrim, MD
- Sashank Prasad, MD
- Paul B. Rizzoli, MD
- Laura Safar, MD
- Martin A. Samuels, MD
- Christopher Severson, MD
- Reisa A. Sperling, MD
- Chizoba Umeh, MD
- Henrikas Vaitkevicius, MD
- Victor Wang, MD
# Course Description

Neurologists, primary care providers and specialists who diagnose and treat neurological conditions can rely on this program for a comprehensive, evidence-based review of state-of-the-art practices for outpatient and inpatient neurology. Education covers the latest guidelines, clinical strategies, and recent advances, including the use of genetic tests, optimal use of imaging, new approaches for diagnosis, and expanded options for treatment for a wide array of neurological diseases.

Education is practical and focused on patient outcomes. Led by the foremost authorities in neurology subspecialties, the program provides tools to improve your care of patients with common, complex, and rare neurological conditions. As updates are presented, they are paired with specific practice recommendations to help you optimize patient care and outcomes.

Lectures are designed to be engaging and to quickly and effectively transfer knowledge.

## Learning Objectives

Upon completion of this activity, participants will be able to:

- Develop strategies to apply updated research and guidelines for common neurological conditions in their care of patients
- Explain the principles of delivering neurological care in resource-constrained environments
- Recognize immune-mediated neurological diseases and initiate appropriate therapy
- Identify the most common causes of cognitive error in the diagnosis and treatment of neurological diseases
- Identify types of seizures and mimickers of seizures
- Develop strategies to recognize and treat common and uncommon headache disorders
- Review strategies to effectively prevent and manage stroke
- Develop strategies for diagnosing and treating complicated neurologic problems in the outpatient and inpatient settings
- Recognize and treat causes of dizziness

---

### Monday, October 8

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-8:00</td>
<td>Registration and Continental Breakfast</td>
</tr>
<tr>
<td>8:00-8:05</td>
<td><strong>Introduction</strong></td>
</tr>
<tr>
<td></td>
<td>Tracey A. Milligan, MD and Martin A. Samuels, MD</td>
</tr>
<tr>
<td>8:05-9:00</td>
<td><strong>Dementia Cases</strong></td>
</tr>
<tr>
<td></td>
<td>Kirk R. Daffner, MD</td>
</tr>
<tr>
<td>9:00-9:45</td>
<td><strong>Challenging Cases in Neuropsychiatry</strong></td>
</tr>
<tr>
<td></td>
<td>Laura Safar, MD</td>
</tr>
<tr>
<td>9:45-10:15</td>
<td><strong>Morning Break</strong></td>
</tr>
<tr>
<td></td>
<td>(Refreshments provided)</td>
</tr>
<tr>
<td>10:15-11:00</td>
<td><strong>Imaging in Neurologic Diseases</strong></td>
</tr>
<tr>
<td></td>
<td>Joshua P. Klein, MD</td>
</tr>
<tr>
<td>11:00-12:00</td>
<td><strong>CNS Lymphoma</strong></td>
</tr>
<tr>
<td></td>
<td>Lakshmi Nayak, MD</td>
</tr>
<tr>
<td>12:00-1:00</td>
<td><strong>Break for lunch</strong></td>
</tr>
<tr>
<td>1:00-1:45</td>
<td><strong>Video Cases in Parkinsonism and Hypokinetic Movement Disorders</strong></td>
</tr>
<tr>
<td></td>
<td>Chizoba Umeh, MD</td>
</tr>
<tr>
<td>1:45-3:15</td>
<td><strong>Afternoon Break</strong></td>
</tr>
<tr>
<td></td>
<td>(Refreshments provided)</td>
</tr>
<tr>
<td>3:15-4:00</td>
<td><strong>Challenging Cases in Global Neurology</strong></td>
</tr>
<tr>
<td></td>
<td>Aaron L. Berkowitz, MD</td>
</tr>
<tr>
<td>4:00-4:45</td>
<td><strong>Sleep Neurology</strong></td>
</tr>
<tr>
<td></td>
<td>Milena Pavlova, MD</td>
</tr>
</tbody>
</table>

*A there are many convenient and varied lunch options within a short walking distance of the course.*

---

Register at Neurology.HMSCME.com
<table>
<thead>
<tr>
<th>Time</th>
<th>Tuesday, October 9</th>
<th>Wednesday, October 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-8:00</td>
<td>Continental Breakfast</td>
<td>7:00-8:00 Continental Breakfast</td>
</tr>
<tr>
<td>8:00-8:45</td>
<td>Meet the Professor: Approach to Myopathy Cases</td>
<td>8:00-8:45 State-of-the-Art Differential Diagnosis of Epilepsy: Video Cases</td>
</tr>
<tr>
<td></td>
<td>Anthony A. Amato, MD</td>
<td>Tracey A. Milligan, MD</td>
</tr>
<tr>
<td>8:45-9:30</td>
<td>Neuropathy and Neuromuscular Junction Cases</td>
<td>8:45-9:30 Best Practices for Psychogenic Non-Epileptic Seizures</td>
</tr>
<tr>
<td></td>
<td>Christopher T. Doughty, MD</td>
<td>Barbara A. Dworetzky, MD</td>
</tr>
<tr>
<td>9:30-10:00</td>
<td>Morning Break (Refreshments provided)</td>
<td>9:30-10:00 Morning Break (Refreshments provided)</td>
</tr>
<tr>
<td>10:00-10:45</td>
<td>Visual Disturbances</td>
<td>10:00-10:45 Updates in Pharmacological Treatment of Epilepsy</td>
</tr>
<tr>
<td></td>
<td>Sashank Prasad, MD</td>
<td>Jong Woo Lee, MD, PhD</td>
</tr>
<tr>
<td>10:45-11:30</td>
<td>Keynote - The Convergence of Research in Neurology and</td>
<td>10:45-11:30 New Concepts in Non-Pharmacologic Rx for Epilepsy</td>
</tr>
<tr>
<td></td>
<td>Psychiatry: Should It Affect How We Train Our Students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and Residents?</td>
<td>Ellen J. Bubrick, MD</td>
</tr>
<tr>
<td></td>
<td>Joseph B. Martin, MD, PhD</td>
<td></td>
</tr>
<tr>
<td>11:30-1:00</td>
<td>Break for lunch *</td>
<td>11:30-1:00 Break for lunch*</td>
</tr>
<tr>
<td>1:00-1:45</td>
<td>Current Approaches in Stroke Prevention and Treatment</td>
<td>1:00-1:45 Meet the Professor: Problematic Epilepsy Cases</td>
</tr>
<tr>
<td></td>
<td>Galen V. Henderson, MD</td>
<td>Page B. Pennell, MD</td>
</tr>
<tr>
<td>1:45-2:30</td>
<td>Updates in Hemorrhagic Stroke</td>
<td>1:45-2:30 Keynote - Current Approaches in the Treatment of Dementia</td>
</tr>
<tr>
<td></td>
<td>Steven K. Feske, MD</td>
<td>Reisa A. Sperling, MD</td>
</tr>
<tr>
<td>2:30-3:00</td>
<td>Afternoon Break (Refreshments provided)</td>
<td>2:30-3:00 Afternoon Break (Refreshments provided)</td>
</tr>
<tr>
<td>3:00-3:45</td>
<td>Neurologic Emergencies</td>
<td>3:00-3:45 Current Approaches in the Diagnosis of Dementia</td>
</tr>
<tr>
<td></td>
<td>Saef Izzy, MD</td>
<td>Scott M. McGinnis, MD</td>
</tr>
<tr>
<td>3:45-4:30</td>
<td>Challenging Stroke Cases</td>
<td>3:45-4:30 Neurology of Alcohol</td>
</tr>
<tr>
<td></td>
<td>Amar Dhand, MD, MD, DPhil</td>
<td>Michael E. Charness, MD</td>
</tr>
</tbody>
</table>

**Agenda**

**ACCREDITATION COUNCIL FOR CONTINUING MEDICAL EDUCATION:** The Harvard Medical School is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The Harvard Medical School designates this live activity for a maximum of 32.50 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

- **Main Course, Neurology 2018:** 29.00 AMA PRA Category 1 Credits™
- **Neurologic Pain Workshop:** 3.50 AMA PRA Category 1 Credits™

**AMERICAN ACADEMY OF FAMILY PHYSICIANS:** This Live activity, 26th Annual Update Neurology 2018, with a beginning date of 10/08/2018, has been reviewed and is acceptable for up to 32.50 Prescribed credit(s) by the American Academy of Family Physicians. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

**RISK MANAGEMENT:** This activity meets the criteria of the Massachusetts Board of Registration in Medicine for 1.25 credits of Risk Management Study. Please check your individual state licensing board requirements before claiming these credits.

**NURSE PRACTITIONERS and REGISTERED NURSES:** For the purpose of recertification, the American Academy of Nurse Practitioners Certification Board and American Nurses Credentialing Center accept AMA PRA Category 1 Credit™ issued by organizations accredited by the ACCME (Accreditation Council for Continuing Medical Education). We would also suggest that learners check with their state licensing board to ensure they accept reciprocity with AMA PRA Category 1 Credit™ for re-licensure.

Register at Neurology.HMSCME.com
<table>
<thead>
<tr>
<th>Thursday, October 11</th>
<th>Friday, October 12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>7:00-8:00</strong></td>
<td><strong>7:00-8:00</strong></td>
</tr>
</tbody>
</table>
| **8:00-8:45** | **8:00-8:45** | Concussion  
William J. Mullally, MD |
| **8:45-9:30** | **8:45-9:30** | New Concepts in Autoimmune Neurology  
Henrikas Vaitkevicius, MD  
**Best Practices for Diagnosis and Treatment of Multiple Sclerosis**  
Christopher Severson, MD |
| **9:30-10:00** | **9:30-10:00** | **Morning Break (Refreshments provided)** |
| **10:00-10:45** | **10:00-10:45** | Issues in Women’s Neurology  
Mary Angela O’Neal, MD |
| **10:45-11:45** | **10:45-12:00** | Keynote - How Neurologists Think: What My Errors Taught Me  
Martin A. Samuels, MD |
| **11:45-1:00** | **11:45-1:00** | Break for lunch*  
**Continental Breakfast** |
| **1:00-1:45** | **1:00-1:45** | The New Options for Treating Chronic Migraine  
Rebecca Burch, MD |
| **1:45-2:30** | **1:45-2:45** | Updates for Evaluation and Treatment of Autonomically Maintained Pain  
Peter Novak, MD, PhD |
| **2:45-3:45** | **2:45-3:45** | Local Nerve Blocks in the Office: When, Why and How  
Victor Wang, MD |
| **3:30-4:30** | **3:30-4:30** | Updates in What Anesthesiologists Can Now Provide for Pain Management  
Christopher Gilligan, MD |
| **4:00-5:00** | **4:00-5:00** | **Break for lunch*** |

Program changes/substitutions may be made without notice. To view the most up-to-date version of the course program, please visit the course website.

**Register at Neurology.HMSCME.com**
Registration, Payment, Confirmation and Refund Policy

Registrations for Harvard Medical School CME programs are made via our secure online registration system. To register for this course, please visit the course website at Neurology.HMSCME.com.

At the end of the registration process, a $5 non-refundable processing fee will be added to your registration, and you will have the choice of paying by check or credit card (Visa, MasterCard, or American Express). If you are paying by check (draft on a United States bank), the online registration system will provide you with instructions and a printable form for remitting your course fees by check. Postal, telephone, fax, and cash-payment registrations are not accepted. All fees shown in USD.

Upon receipt of your paid registration, an email confirmation from the HMS GCE office will be sent to you. Be sure to include an email address that you check frequently. Your email address is used for critical information, including registration confirmation, evaluation, and certificate. Refunds, less an administrative fee of $75, will be issued for all cancellations received two weeks prior to the start of the course. Refund requests must be received by email. No refund will be issued should cancellation occur less than two weeks prior. “No shows” are subject to the full course fee and no refunds will be issued once the conference has started.

Venue
Royal Sonesta Boston
40 Edwin H. Land Boulevard
Cambridge, Massachusetts 02142
617-806-4200

Accommodations
A limited number of discounted rooms* have been reserved at the Royal Sonesta Boston until September 14, 2018. Reservations must be received by the hotel on or before 5:00 p.m. on September 14, 2018. You can call the hotel reservation line to make a room reservation: 617-806-4200. Please specify that you are enrolled in the Harvard HMS/Annual Update in Neurology 2018 Course in order to request the reduced room rate.

To make your discounted hotel reservation online, please visit the Venue page of the course website before 5:00 p.m. on September 14, 2018 at https://Neurology.HMSCME.com/Venue and click on the dedicated reservation link.

*Please note that the discounted rooms may sell out before the deadline.

Please do not make non-refundable travel arrangements until you have received an email from the HMS GCE office confirming your paid registration.

Questions? Call 617-384-8600 Monday-Friday 9am – 5pm (ET) or send an email to CEPrograms@hms.harvard.edu

Register at Neurology.HMSCME.com

---

### Tuition Table

<table>
<thead>
<tr>
<th>Category</th>
<th>Tuition</th>
<th>Register on or before</th>
<th>September 15, 2018</th>
<th>(SAVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>$1,295</td>
<td>$1,195</td>
<td></td>
<td>$100</td>
</tr>
<tr>
<td>Allied Health Professionals</td>
<td>$1,095</td>
<td>$995</td>
<td></td>
<td>$100</td>
</tr>
<tr>
<td>Residents, Fellows and Trainees</td>
<td></td>
<td>$895</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Your course tuition includes continental breakfast each day, and morning and afternoon refreshment breaks. All course participants receive a flash drive that contains all of the course materials. If you would like a printed copy of these materials, you can purchase them in advance for $50 with your online course registration. A very limited supply will be available on site at the course for $65.

### Optional Workshop

**State-of-the-Art Treatments of Neurologic Pain**
Friday, October 12, 1:00 - 5:00 pm

$145

This course sold out last year. Early registration advised.

[Register at Neurology.HMSCME.com](#)