

A special three-day educational program to improve diagnosis of neurological symptoms, rapidly identify emergencies, and optimize patient outcomes



**HARVARD**  
MEDICAL SCHOOL

Earn up to 21.75 AMA PRA Category 1 Credits™  
and 4.50 Risk Management Credits

# NEUROLOGICAL EMERGENCIES 2020

NOV 12-14

BOSTON, MA

## New Algorithms for More Accurate Diagnosis of

- Common neurological symptoms
- High-risk neurological conditions
- Neurological symptoms in special populations

## State-of-the-art practices to

- Avoid misdiagnosis
- Rapidly identify high-risk patients
- Act to optimize outcomes
- Optimize your use of imaging
- Minimize risk and liability

## Updates for

- Treating stroke, TIA, and ICH
- Imaging and treatment of wake-up strokes
- Selecting patients for transfer and/or for endovascular therapy
- Improving headache diagnosis
- Managing head injuries
- Diagnosing dizziness at the bedside — is it stroke, neuritis, or BPPV?



Headaches  
Dizziness  
Back Pain  
Weakness  
Coma  
Delirium  
Seizures  
TIA  
TBI



Full agenda inside



# HARVARD MEDICAL SCHOOL

Dear Colleague,

We've all had the experience of seeing the dreaded “dizziness,” “back pain,” or “weakness” chief complaint. Every day we go to work, we see patients with these symptoms and others, such as headache and altered mental status. There is precious little time to sort out which are the (at times very sharp) needles (patients with life, limb, brain, or vision threatening emergencies) from the much larger haystack (patients with benign, self-limiting disorders).

Then, once the diagnosis is made, what are the most important next steps? What is the current state of the art for stroke, head injury, and seizure? Do all of these patients need specialty or subspecialty consultation? Who will benefit from emergency MRI?

Knowing when it's safe NOT to do time-consuming and expensive imaging is as important as knowing when it is necessary.

If you see patients with potential neurological emergencies, you know that every year there is more practice-changing literature impacting our approaches to the history, the physical, and early management.

Through participation in this program, you can stay current with these changes. Our program summarizes the state-of-the-art, evidence-based workup and management procedures that help you find that needle in the haystack, know what to do once you find it, AND avoid over-evaluation of the haystack.

Our program is uniquely designed to:

- Provide tips that you can immediately put into practice.
- Lay out algorithms for common complaints such as headache, dizziness, back pain, and visual problems.
- Include case-based education and extensive time for group discussion—hear what your colleagues in other cities and countries are doing.
- Deliver guidance for stroke and cerebrovascular episodes, including first hours of workup, rapid neuroimaging and treatment, and best practices in risk management.
- Incorporate the latest data for treating stroke up to 24 hours after last known well time.
- Offer interactive sessions with master clinicians, who share their strategies and techniques for clinical examination.
- Let you customize your learning experience.

You will come away from this experience knowing the evidence-based, state-of-the-art practices that will ensure the best outcomes for your patients.

We look forward to seeing you in November.



**Jonathan A. Edlow, MD, FACEP**  
Course Director  
Vice-Chair, Department of  
Emergency Medicine,  
Beth Israel Deaconess Medical Center  
Professor of Medicine and Emergency  
Medicine, Harvard Medical School



**Joshua N. Goldstein, MD, PhD**  
Course Director  
Director, Center for Neurologic Emergencies,  
Department of Emergency Medicine,  
Massachusetts General Hospital  
Professor of Emergency Medicine,  
Harvard Medical School

Beth Israel Lahey Health   
Beth Israel Deaconess Medical Center

 MASSACHUSETTS  
GENERAL HOSPITAL

**Register at [NeuroEmergencies.HMSCME.com](https://www.HMSCME.com)**

# Course Description

This program prepares clinicians who work in Emergency Medicine, Inpatient and Outpatient Neurology, Critical Care, Intensive Care, Hospital Medicine, Urgent Care, and Internal/Family Medicine to quickly and accurately diagnose and provide appropriate care for patients with neurological emergencies, including:

## High-frequency symptoms:

- Headache
- Back pain
- Dizziness
- Delirium
- Weakness

## High-risk conditions:

- Ischemic and hemorrhagic stroke
- Subdural hematoma
- TIA
- Spinal cord compression
- TBI

## Strategies and best practices to:

- Avoid misdiagnosis
- Mitigate risk for you and your patient
- Improve patient safety

Presented by the leading clinical faculty at Harvard Medical School, this course ensures participants are better equipped to make an accurate diagnosis, better understand the uses and limitations of neuroimaging tests, and improve overall care in emergency, inpatient, and outpatient settings.

## Learning Objectives

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

- Perform bedside diagnostic and therapeutic maneuvers with the dizzy patient.
- Use the focused history and physical to determine which patients with headache or minor head injury require neuroimaging or further workup.
- Review history and physical examination “red flags” to avoid misdiagnosis of cord and cauda equina compression in patients presenting with back pain.
- Discuss how to rapidly evaluate patients with stroke symptoms for intravenous and intra-arterial revascularization therapy.

## Harvard Medical School Faculty

Erica Camargo Faye, MD, MMSc  
William A. Copen, MD  
Francis W. Drislane, MD  
Nicole Dubosh, MD  
Andrea G. Edlow, MD, MSc  
Brian L. Edlow, MD  
Jonathan A. Edlow, MD, FACEP

Corey R. Fehnel, MD, MPH  
Joshua N. Goldstein, MD, PhD  
Pushpa Narayanaswami, MD, FAAN  
MingMing Ning, MD, MMSc  
Christopher S. Ogilvy, MD  
Efsthios Papavassiliou, MD  
David L. Perez, MD, MMSc

Martin A. Samuels, MD, DSc (hon),  
FAAN, MACP, FRCP, FANA  
Magdy H. Selim, MD, PhD  
Michael G. Silverman, MD, MPH  
Peter B. Smulowitz, MD, MPH  
Martina Stippler, MD, FAANS, FACS

## Guest Faculty

**David Greer, MD**, Chief, Department of Neurology, Boston Medical Center; Professor of Neurology, Boston University School of Medicine

**Thanh Nguyen, MD**, Director, Interventional Neuroradiology and Interventional Neurology, Boston Medical Center; Associate Professor of Neurology, Neurosurgery and Radiology, Boston University School of Medicine

**Matthew S. Siket, MD**, Assistant Professor, The Robert Larner, MD College of Medicine at the University of Vermont (UVM); Interim Director of Stroke Services, UVM Health Network

## Accreditation

**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 21.75 *AMA PRA Category 1 Credits™*. 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 4.50 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.

**PHYSICIAN ASSISTANTS:** The National Commission on Certification of Physician Assistants (NCCPA) states that *AMA PRA Category 1 Credits™* are acceptable for continuing medical education requirements for recertification. 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.

**CANADIAN ACCREDITATION:** The Royal College of Physicians and Surgeons of Canada recognizes conferences and workshops held outside of Canada that are developed by a university, academy, hospital, specialty society or college as accredited group learning activities.

**EUROPEAN ACCREDITATION:** Through an agreement between the American Medical Association and the European Union of Medical Specialists, physicians may convert *AMA PRA Category 1 Credit™* to an equivalent number of European CME Credits® (ECMECs®). Information on the process of converting *AMA PRA Category 1 Credits™* to ECMECs® can be found at: [www.eaccme.eu](http://www.eaccme.eu).

# Neurological Emergencies 2020

Thursday, November 12

7:30-7:50	<b>Registration and Continental Breakfast</b>
7:50-8:00	<b>Welcome and Introduction</b> Jonathan A. Edlow, MD, FACEP and Joshua N. Goldstein, MD, PhD
8:00-9:00	<b>Keynote Presentation—The Neurological Exam and Neuroanatomy</b> Martin A. Samuels, MD, DSc (hon), FAAN, MACP, FRCP, FANA
9:00-9:15	<b>Q&amp;A</b>
9:15-10:00	<b>Optimal Use of Neuroimaging to Answer Clinical Questions</b> William A. Copen, MD
10:00-10:15	<b>Q&amp;A and Case Presentations</b>
10:15-10:45	<b>Back Pain: Whom to Evaluate and When?</b> Jonathan A. Edlow, MD, FACEP
10:45-11:00	<b>Q&amp;A</b>
11:00-11:15	<i>Break (Refreshments provided)</i>
11:15-11:45	<b>Imaging for Spine Emergencies: What to Order and How to Read</b> William A. Copen, MD
11:45-12:00	<b>Q&amp;A</b>
12:00-12:30	<b>State-of-the-Art Treatment of Nontraumatic Spinal Cord and Cauda Equina Disorders</b> Efsthathios Papavassiliou, MD
12:30-12:45	<b>Q&amp;A</b>
12:45-1:45	<i>Break for lunch*</i>



## Your choice of breakout sessions

	<b>Acute ED and ICU Management</b>	<b>Hospitalist/Outpatient Care</b>
1:45-2:15 2:15-2:30 Q&A	<b>Acute Subdural Hematoma</b> Martina Stippler, MD, FAANS, FACS	<b>Neurology Consults in the ED and Inpatient</b> Erica Camargo Faye, MD, MMSc
2:30-3:00 3:00-3:15 Q&A	<b>Acute Stroke Imaging</b> William A. Copen, MD	<b>CNS Infections</b> Corey R. Fehnel, MD, MPH
3:15-3:45 3:45-4:00 Q&A	<b>Headache 101</b> Jonathan A. Edlow, MD, FACEP	<b>Seizures and Epilepsy: Updates in Treatment</b> Francis W. Drislane, MD
4:00-4:15	<i>Break (Refreshments provided)</i>	
4:15-4:45	<b>Status Epilepticus in the ED and ICU</b> Francis W. Drislane, MD	
4:45-5:00	<b>Q&amp;A</b>	

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



# Neurological Emergencies 2020

Friday, November 13

7:30-8:00	<b>Continental Breakfast</b>
8:00-8:45	<b>Keynote Presentation—Cerebral Aneurysms: Current Approaches</b> Christopher S. Ogilvy, MD
8:45-9:00	<b>Q&amp;A</b>
9:00-9:30	<b>Updates for Diagnosing Subarachnoid Hemorrhage</b> Nicole Dubosh, MD
9:30-9:45	<b>Q&amp;A</b>
9:45-10:15	<b>Updates for TIA: What to Do and Where to Do It</b> Matthew S. Siket, MD
10:15-10:30	<b>Q&amp;A</b>
10:30-10:45	<i>Break (Refreshments provided)</i>
10:45-11:15	<b>Updates on IV Thrombolytics: What to Do in the Community and the Academic Medical Center</b> Joshua N. Goldstein, MD, PhD
11:15-11:30	<b>Q&amp;A</b>
11:30-12:00	<b>Updates on Endovascular Therapy: How to Triage and Whom to Treat</b> Thanh Nguyen, MD
12:00-12:15	<b>Q&amp;A</b>
12:15-1:15	<i>Break for lunch*</i>

## Your choice of breakout sessions

	<b>Acute ED and ICU Management</b>	<b>Hospitalist/Outpatient Care</b>
1:15-1:45 1:45-2:00 Q&A	<b>Intracerebral Hemorrhage</b> Joshua N. Goldstein, MD, PhD	<b>Stroke Management: Beyond Revascularization</b> Magdy H. Selim, MD, PhD
2:00-2:30 2:30-2:45 Q&A	<b>Traumatic Brain Injury</b> Brian L. Edlow, MD	<b>Anticoagulants and Antiplatelets: What to Choose and When</b> Magdy H. Selim, MD, PhD
2:45-3:15 3:15-3:30 Q&A	<b>Cardiac Arrest: Resuscitation after ROSC</b> Michael G. Silverman, MD	<b>Arterial Dissections</b> MingMing Ning, MD, MMSc
3:30-3:45	<i>Break (Refreshments provided)</i>	
3:45-4:15	<b>Diagnosis of Posterior Circulation Stroke: Real-Life Lessons from Real-Life Cases</b> Jonathan A. Edlow, MD, FACEP	
4:15-4:30	<b>Q&amp;A</b>	
4:30-5:00	<b>Case Discussions: Stroke Mimics and Other Unusual Cases</b> MingMing Ning, MD, MMSc	

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.

## Customize Your Learning Experience


You can choose from a variety of breakout sessions to tailor your educational experience to your specific practice needs.

**Emergency Medicine**  
**Neurology (Inpatient)**  
**Hospital Medicine**  
**Intensive Care**  
**Critical Care**

**Neurology (Outpatient)**  
**Internal Medicine**  
**Family Medicine**  
**Urgent Care**

# Neurological Emergencies 2020

## Saturday, November 14

7:30-8:00	<b>Continental Breakfast</b>
8:00-9:00	<b>Keynote Presentation— Altered Mental Status, Coma, and Brain Death</b> David Greer, MD 
9:00-9:15	<b>Q&amp;A</b>
9:15-10:30	<b>Dizziness 2020: The Evidence- Based Approach, with Video Evaluation of Real Patients</b> Jonathan A. Edlow, MD, FACEP
10:30-10:45	<b>Q&amp;A</b>
10:45-11:00	<i>Break (Refreshments provided)</i>
11:00-11:30	<b>Functional (Psychogenic) Neurological Disorders: How to Diagnose and How to Treat</b> David L. Perez, MD, MMSc
11:30-11:45	<b>Q&amp;A</b>
11:45-12:15	<b>Neurological Emergencies in Pregnancy and Postpartum</b> Andrea G. Edlow, MD, MSc
12:15-12:30	<b>Q&amp;A</b>
12:30-1:30	<i>Break for lunch*</i>
1:30-2:15	<b>Acute Weakness: Emergency Evaluation</b> Pushpa Narayanaswami, MD, FAAN
2:15-2:30	<b>Q&amp;A</b>
2:30-3:00	<b>The Eyes Have It: Visual Complaints</b> Jonathan A. Edlow, MD, FACEP
3:00-3:15	<b>Q&amp;A</b>
3:15-3:30	<i>Break (Refreshments provided)</i>
3:30-4:30	<b>When Bad Things Happen: Perfection in Medicine and the Power of Apology</b> Peter B. Smulowitz, MD, MPH
4:30-4:45	<b>Q&amp;A</b>
4:45-5:00	<b>Course Wrap-Up and Q&amp;A</b> Jonathan A. Edlow, MD, FACEP and Joshua N. Goldstein, MD, PhD

## Reasons to Attend

### Algorithms and State-of-the-Art Practices to:

- Evaluate symptoms and high-risk conditions
- Avoid misdiagnosis
- Act in the first hours
- Manage coma and delirium
- Confidently diagnose dizziness at the bedside
- Diagnose headaches
- Optimize your use of CT, CTA, MRI
- Identify stroke patients for endovascular therapy
- Treat stroke up to 24 hours after onset
- Treat TIA and intracerebral hemorrhage
- Manage head injuries
- Optimize patient safety

## NEW in 2020

### Education covering:

- The optimized neurological exam
- The latest data for treating delayed onset and wake-up strokes
- Imaging for back and spine: when to image and what to look for
- Evidence-based evaluation of altered mental status, coma, and brain death
- Brain resuscitation after cardiac arrest
- Case-based sessions with audience participation and group discussion — learn from your peers
- How to minimize diagnostic error and mitigate liability

*Throughout this program, master clinicians share strategies and techniques for clinical evaluation.*





# HARVARD MEDICAL SCHOOL

<b>Neurological Emergencies</b> Course #734470-2101	After September 30, 2020	<b>Register on or before September 30, 2020</b>
<b>Course Tuition</b>	\$1,075	<b>\$975 (Save \$100)</b>

*Tuition includes continental breakfast each day and morning and afternoon refreshment breaks. Presentations of all lectures will be emailed to registered participants the morning of the first day of the course.*

## 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 [NeuroEmergencies.HMSCME.com](http://NeuroEmergencies.HMSCME.com).

At the end of the registration process, a \$10 non-refundable processing fee will be added to your registration, and you will have the choice of paying by check, credit card (Visa, MasterCard, or American Express), or wire transfer in USD. If you are paying by check (draft on a United States bank) or by wire transfer, the online registration system will provide you with instructions for remitting your course fees. Postal, telephone, fax, and cash-payment registrations are not accepted. All fees shown in USD.

Upon receipt of your paid registration, an email confirmation 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. **Please do not make non-refundable travel arrangements until you have received an email from our office confirming your paid registration.** 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 course has started.

**Questions?** Call 617-384-8600 Monday-Friday 9am – 5pm (ET) or email [CEPrograms@hms.harvard.edu](mailto:CEPrograms@hms.harvard.edu)



## Venue

Fairmont Copley Plaza  
138 St. James Avenue  
Boston, Massachusetts  
+1 617-267-5300

## Accommodations

Fairmont Copley Plaza has reserved a block of discounted rooms for course participants.

### Important to note:

- The number of discounted rooms is limited.
- Discounted rooms are available on a first-come, first-served basis.
- The discounted room rate is only available until October 19, 2020, or until the block sells out, which typically happens well in advance of this date.

### To reserve your room:

- **Online:** To reserve your room online, please visit [NeuroEmergencies.HMSCME.com/Venue](http://NeuroEmergencies.HMSCME.com/Venue)—the Venue page of the course website—and click on the dedicated room reservation link.
- **By phone:** If you are calling the hotel rather than using the dedicated link to request a discounted room, please call 1-800-441-1414 and be sure to specify that you are enrolled in Neurological Emergencies.

**Register at [NeuroEmergencies.HMSCME.com](http://NeuroEmergencies.HMSCME.com)**