The 2018 Northwestern Medicine Comprehensive Stroke and Cerebrovascular Conference

**Saturday, October 13**
Hyatt Centric Chicago Magnificent Mile
633 N. St Clair Street
Chicago, IL
7:00 am to 5:10 pm

*Sponsored by Northwestern Medicine*

**REGISTER ONLINE:** [www.northwesternstroke2018.com](http://www.northwesternstroke2018.com)
This program offers participants the opportunity to hear from expert clinician leaders from Northwestern Medicine regarding the advances in stroke medicine. We are also excited to welcome our guest speaker, Philip B. Gorelick, MD, MPH, Professor, Translational Science & Molecular Medicine, Michigan State University, Michigan. Recently published findings and guidelines for ischemic and hemorrhagic stroke patients will be discussed in detail, as well as other current measures to treat and manage strokes quickly and effectively to mitigate damage.

**PROGRAM OBJECTIVES**

*After attending this educational activity, participants should be able to:*

1) Recognize the role of the emergency department in triaging acute stroke patients and coordination with paramedics in the field.
2) Outline the importance of rehabilitation intervention for early recovery of stroke patients.
3) Discuss the cardiac causes of stroke, as well as current clinical trials and the medical and interventional management options available.
4) Review current state-of-the-art endovascular treatment of acute ischemic stroke and discuss various clinical trials in endovascular management.
5) Discuss the role of nurses in the acute intervention, management and care of stroke patients.
6) Examine the role of frontline neuroradiology imaging and functional imaging in acute stroke and paradigm in triaging patients for acute intervention.
7) Describe and discuss endovascular and surgical options for revascularization.
8) Discuss and review criteria for both surgical and endovascular options for patients with unruptured intracranial aneurysm.
9) Discuss causes and management of subarachnoid hemorrhage.
10) Explain the management of ruptured cerebral aneurysm.
11) Discuss the role of a neurointerventionist in the prevention of complications related to acute stroke and present current guidelines.
## Saturday, October 13

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 am</td>
<td>Registration</td>
</tr>
</tbody>
</table>
| 8:00 am| Welcome<br>
James G. Adams, MD<br>
Introduction<br>
Babak S. Jahromi, MD, PhD, Shyam Prabhakaran, MD, MS, and Harish N. Shownkeen, MD |
| 8:10 am| Keynote Speaker—Stroke Care: Challenges and Opportunities<br>
Philip B. Gorelick, MD, MPH |
| 8:50 am| TIA in ER: MRI, Admit, or Consult Neurology?<br>
Christopher T. Richards, MD |
| 9:10 am| Prehospital Routing for Stroke Patients<br>
Shyam Prabhakaran, MD |
| 9:30 am| Mobile Stroke Units: Hype or Hope?<br>
Harish N. Shownkeen, MD |
| 9:50 am| Endovascular Stroke after DAWN/DEFUSE: How Long is the Time Window Today?<br>
Ali Shaibani, MD |
| 10:10 am| Panel: Challenging Cases and Q&A |
| 10:30 am| Break |
| 10:50 am| SAH and Vasospasm in the NICU<br>
Jeffrey P. Huml, MD |
| 11:10 am| Intervention for Intracerebral Hemorrhage: Who, When and How?<br>
Matthew B. Potts, MD |
| 11:30 am| Anticoagulation in the NICU: Prophylactic, Therapeutic and Emergent Reversal<br>
Andrew M. Naidech, MD, MSPH |
| 11:50 am| Intracerebral Hemorrhage and Cerebral Edema: Mechanisms and Management in the NICU<br>
Ayush Batra, MD |
| 12:10 pm| Panel: Challenging Cases and Q&A |
| 12:30 pm| Lunch |
| 1:20 pm| Management of Cryptogenic Stroke<br>
Richard A. Bernstein, MD, PhD |
| 1:40 pm| Stroke and PFO: Medical Management or Closure Device?<br>
Keith H. Benzuly, MD |
| 2:00 pm| Advances in Atrial Fibrillation<br>
Omeed Zardkoohi, MD, FHRS |

*Agenda continues on the following page...*
Join us for the 2018 Emergency Neurological Life Support (ENLS) CME Symposium!

*Sunday, October 14 | 7:30 am to 3:30 pm*

Northwestern Medicine | Prentice Women’s Hospital
250 E. Superior Street | Third Floor, Conference Room L North
Chicago, IL 60611

Course Director: Edward M. Manno, MD, MS

ENLS is a national certified course designed to help healthcare professionals improve outcomes during the first hours of a neurological emergency. The course is divided into 14 training modules designed to provide a consistent set of protocols, practical checklists, decision points, and suggested communication to use during patient management.

Accreditation Statement

The Northwestern University Feinberg School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation Statement

The Northwestern University Feinberg School of Medicine designates this live activity for a maximum of 5.25 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

*There is a separate fee to attend. To register, please visit here.*

**Agenda**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:20 pm</td>
<td>Unruptured Brain Aneurysms: Watch or Treat? Does Size Matter?</td>
<td>Babak S. Jahromi, MD, PhD</td>
</tr>
<tr>
<td>2:40 pm</td>
<td>Critical Care Nursing for Acute Stroke Patients</td>
<td>Stacey Caron, BSN, RN, CNRN</td>
</tr>
<tr>
<td>2:55 pm</td>
<td>Management of a Hub and Stroke Network for Comprehensive Stroke Centers: Nursing Challenges</td>
<td>Anne Lindstrom, MS, APRN, FNP-BC, SCRN</td>
</tr>
<tr>
<td>3:10 pm</td>
<td>Panel: Challenging Cases and Q&amp;A</td>
<td></td>
</tr>
<tr>
<td>3:30 pm</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>3:50 pm</td>
<td>Rehab in Stroke Patients: Is Sooner Better... and Why?</td>
<td>Daniel A. Goodman, MD, MS</td>
</tr>
<tr>
<td>4:10 pm</td>
<td>Cognitive Impairment in Stroke Patients: Recognition and Management</td>
<td>Farzaneh A. Sorond, MD, PhD</td>
</tr>
<tr>
<td>4:30 pm</td>
<td>Panel: Challenging Cases and Q&amp;A</td>
<td></td>
</tr>
<tr>
<td>4:50 pm</td>
<td>Closing Remarks</td>
<td></td>
</tr>
</tbody>
</table>
Program Course Directors

Babak S. Jahromi, MD, PhD, FRCSC, FAANS, FAHA, FACS
Chief, Division of Cerebrovascular/Neurointerventional Surgery
Vice-Chair, Regional Neurosurgery
Surgical Director
Northwestern Memorial Hospital
Comprehensive Stroke Center
Professor, Departments of Neurological Surgery and Radiology
Northwestern University
Feinberg School of Medicine

Shyam Prabhakaran, MD, MS
Director, Stroke Research
Director, Vascular Neurology Fellowship
Director, NM Stroke Quality Outcomes and Research Enterprise (SQORE)
Professor, Department of Neurology
Northwestern University
Feinberg School of Medicine

Harish N. Shownkeen, MD, FAHA
Medical Director, Neurointerventional Surgery
Central DuPage and Silver Cross Hospitals
Medical Director, Comprehensive Stroke Center and Neurovascular Program
Northwestern Medicine (West Region)
Co-Medical Director, Mobile Stroke Unit Section Chair
Neurosciences at Central DuPage Hospital
Adjunct Faculty
Cleveland Clinic
Neuroscience Institute, Cerebrovascular Section

Invited Faculty

Philip B. Gorelick, MD, MPH
Professor, Translational Science & Molecular Medicine, Michigan State University College of Human Medicine
Member, Vascular Neurology Program
Hauenstein Neurosciences
Grand Rapids, Michigan
Chief Medical Officer
Thorek Memorial Hospital Chicago

Program Faculty

James G. Adams, MD
Senior Vice President & Chief Medical Officer
Northwestern Medicine
Chairman & Professor, Emergency Medicine
Northwestern University
Feinberg School of Medicine

Sameer A. Ansari, MD, PhD
Associate Professor, Departments of Radiology, Neurological Surgery and Neurology
Northwestern University
Feinberg School of Medicine

Ayush Batra, MD
Assistant Professor, Departments of Neurology (Stroke and Neurocritical Care) and Pathology
Northwestern University
Feinberg School of Medicine

Richard A. Bernstein MD, PhD
Distinguished Physician, Vascular Neurology
Northwestern Medicine
Medical Director
Northwestern Medicine Comprehensive Stroke Center and Wood-Prince Family Stroke Center at Northwestern Medicine
Lake Forest Hospital
Clinical Director, Telehealth
Professor, Department of Neurology (Stroke and Neurocritical Care)
Northwestern University
Feinberg School of Medicine

Keith Benzuly, MD, FACC
Associate Professor, Department of Interventional Cardiology
Bluhm Cardiovascular Institute
Northwestern University
Feinberg School of Medicine

Stacey Caron, BSN, RN, CNRN
Manager, Patient Care
Northwestern Medicine

Daniel A. Goodman, MD, MS
Attending Physician
Shirley Ryan AbilityLab
Assistant Professor, Department of Physical Medicine and Rehabilitation
Northwestern University
Feinberg School of Medicine

Jeffrey P. Huml, MD
Medical Director of Critical Care and Neurocritical Care, Western Region Northwestern Medicine

Anne Lindstrom, MS, APRN, FNP-BC, SCRN
Northwestern Medicine Central DuPage Hospital
Northwestern Medicine Delnor Hospital

Andrew M. Naidech, MD, MSPH
Program Director, Neurocritical Care Fellowship Faculty Advisor, School of Professional Studies Professor, Departments of Neurology, Anesthesiology, Medical Social Sciences and Preventive Medicine - Health & Biomedical Informatics
Northwestern University
Feinberg School of Medicine

Matthew B. Potts, MD
Assistant Program Director, Neurosurgical Residency Training Program
Assistant Professor, Divisions of Cerebrovascular/Neurointerventional Surgery Departments of Neurological Surgery and Radiology
Northwestern University
Feinberg School of Medicine

Christopher T. Richards, MD, MS, FAEMS, FACEP
Assistant Professor, Department of Emergency Medicine
Northwestern University
Feinberg School of Medicine

Shyam Prabhakaran, MD, MS
Director, Stroke Research
Director, Vascular Neurology Fellowship
Director, NM Stroke Quality Outcomes and Research Enterprise (SQORE)
Professor, Department of Neurology
Northwestern University
Feinberg School of Medicine

Omeed Zardkoohi, MD, FHRS
Medical Director, Cardiac Electrophysiology
Bluhm Cardiovascular Institute West Health System Clinician
Department of Cardiology
Northwestern University
Feinberg School of Medicine

Ali Shaibani, MD
Chief of Neurointerventional Radiology
Professor, Departments of Radiology and Neurological Surgery
Northwestern University
Feinberg School of Medicine

Farzaneh A. Sorond, MD, PhD
Medical Director, Neurointerventional Surgery
Central DuPage and Silver Cross Hospitals
Medical Director, Comprehensive Stroke Center and Neurovascular Program
Northwestern Medicine (West Region)
Co-Medical Director, Mobile Stroke Unit Section Chair
Neurosciences at Central DuPage Hospital
Adjunct Faculty
Cleveland Clinic
Neuroscience Institute, Cerebrovascular Section

Babak S. Jahromi, MD, PhD, FRCSC, FAANS, FAHA, FACS
Chief, Division of Cerebrovascular/Neurointerventional Surgery
Vice-Chair, Regional Neurosurgery
Surgical Director
Northwestern Memorial Hospital
Comprehensive Stroke Center
Professor, Departments of Neurological Surgery and Radiology
Northwestern University
Feinberg School of Medicine

Ayush Batra, MD
Assistant Professor, Departments of Neurology (Stroke and Neurocritical Care) and Pathology
Northwestern University
Feinberg School of Medicine

Jeffrey P. Huml, MD
Medical Director of Critical Care and Neurocritical Care, Western Region Northwestern Medicine

Stacey Caron, BSN, RN, CNRN
Manager, Patient Care
Northwestern Medicine

Daniel A. Goodman, MD, MS
Attending Physician
Shirley Ryan AbilityLab
Assistant Professor, Department of Physical Medicine and Rehabilitation
Northwestern University
Feinberg School of Medicine

Harish N. Shownkeen, MD, FAHA
Medical Director, Neurointerventional Surgery
Central DuPage and Silver Cross Hospitals
Medical Director, Comprehensive Stroke Center and Neurovascular Program
Northwestern Medicine (West Region)
Co-Medical Director, Mobile Stroke Unit Section Chair
Neurosciences at Central DuPage Hospital
Adjunct Faculty
Cleveland Clinic
Neuroscience Institute, Cerebrovascular Section

Omeed Zardkoohi, MD, FHRS
Medical Director, Cardiac Electrophysiology
Bluhm Cardiovascular Institute West Health System Clinician
Department of Cardiology
Northwestern University
Feinberg School of Medicine

Program Faculty

James G. Adams, MD
Senior Vice President & Chief Medical Officer
Northwestern Medicine
Chairman & Professor, Emergency Medicine
Northwestern University
Feinberg School of Medicine

Sameer A. Ansari, MD, PhD
Associate Professor, Departments of Radiology, Neurological Surgery and Neurology
Northwestern University
Feinberg School of Medicine

Ayush Batra, MD
Assistant Professor, Departments of Neurology (Stroke and Neurocritical Care) and Pathology
Northwestern University
Feinberg School of Medicine

Richard A. Bernstein MD, PhD
Distinguished Physician, Vascular Neurology
Northwestern Medicine
Medical Director
Northwestern Medicine Comprehensive Stroke Center and Wood-Prince Family Stroke Center at Northwestern Medicine
Lake Forest Hospital
Clinical Director, Telehealth
Professor, Department of Neurology (Stroke and Neurocritical Care)
Northwestern University
Feinberg School of Medicine

Keith Benzuly, MD, FACC
Associate Professor, Department of Interventional Cardiology
Bluhm Cardiovascular Institute
Northwestern University
Feinberg School of Medicine

Stacey Caron, BSN, RN, CNRN
Manager, Patient Care
Northwestern Medicine

Daniel A. Goodman, MD, MS
Attending Physician
Shirley Ryan AbilityLab
Assistant Professor, Department of Physical Medicine and Rehabilitation
Northwestern University
Feinberg School of Medicine

Jeffrey P. Huml, MD
Medical Director of Critical Care and Neurocritical Care, Western Region Northwestern Medicine

Anne Lindstrom, MS, APRN, FNP-BC, SCRN
Northwestern Medicine Central DuPage Hospital
Northwestern Medicine Delnor Hospital

Andrew M. Naidech, MD, MSPH
Program Director, Neurocritical Care Fellowship Faculty Advisor, School of Professional Studies Professor, Departments of Neurology, Anesthesiology, Medical Social Sciences and Preventive Medicine - Health & Biomedical Informatics
Northwestern University
Feinberg School of Medicine

Matthew B. Potts, MD
Assistant Program Director, Neurosurgical Residency Training Program
Assistant Professor, Divisions of Cerebrovascular/Neurointerventional Surgery Departments of Neurological Surgery and Radiology
Northwestern University
Feinberg School of Medicine

Christopher T. Richards, MD, MS, FAEMS, FACEP
Assistant Professor, Department of Emergency Medicine
Northwestern University
Feinberg School of Medicine

Shyam Prabhakaran, MD, MS
Director, Stroke Research
Director, Vascular Neurology Fellowship
Director, NM Stroke Quality Outcomes and Research Enterprise (SQORE)
Professor, Department of Neurology
Northwestern University
Feinberg School of Medicine

Omeed Zardkoohi, MD, FHRS
Medical Director, Cardiac Electrophysiology
Bluhm Cardiovascular Institute West Health System Clinician
Department of Cardiology
Northwestern University
Feinberg School of Medicine
Program Location
The program will be held at the Hyatt Centric Chicago Magnificent Mile, 633 N. St Clair Street, Chicago. The Hyatt Centric Chicago Magnificent Mile is located in the heart of Chicago, within walking distance of a plethora of restaurants, public transportation, Navy Pier and the Magnificent Mile, Chicago's premier shopping area. For a listing of all Chicago has to offer, visit choosechicago.com.

Hotel Accommodations
We have a room block at the Hyatt Centric Magnificent Mile. Click here to reserve your room at the discounted rate. We recommend you make your reservations as soon as possible to ensure accommodations.

Directions and Parking
We will offer discounted parking in the garage, one block north of the Hyatt at 222 E. Huron Street.

Audience
This course is designed for all healthcare providers managing stroke patients, including those in the emergency department, cardiologists, neurologists, neurosurgeons, radiologists, advanced care providers, nurses, nurse practitioners, physician assistants, physical therapists, occupational therapists, speech language pathologists, social workers and allied health professionals.

Registration Fee
The fee is $75 for physicians and $50 for trainees, nurses and other healthcare professionals. Breakfast, refreshments and lunch are provided. Space is limited. No refunds will be issued after September 21.

Registration Procedure
To register online, please visit www.northwesternstroke2018.com. If paying with check, please mail your check, made payable to Northwestern Memorial Hospital (CME), to the address listed below, prior to September 21.

Sarah Baggs
c/o Northwestern Memorial Healthcare
675 North St. Clair Street, Galter 3-104H
Chicago, IL 60611

Accreditation Statement
The Northwestern University Feinberg School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Credit Designation Statement
The Northwestern University Feinberg School of Medicine designates this educational activity for a maximum of 7.5 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Credit Designation Statement
The American Nurses Credentialing Center (ANCC) and the Illinois Department of Financial and Professional Regulation accept AMA PRA Category 1 Credits™ from organizations accredited by the ACCME for relicensure & recertification requirements. 1 CME credit is equivalent to 1 contact hour. Your certificate of completion, which includes the number of CME credits awarded, is the only documentation required.
The 2018 Northwestern Medicine
Comprehensive Stroke and Cerebrovascular Conference

Registration Form

Registration Category

- Physician .......................................................................................................................................................................................................................................... $75
- Trainee, Nurse, or Other HCP ........................................................................................................................................................................................... $50

How to Register

ONLINE: www.northwesternstroke2018.com

OR MAIL with check (payable to Northwestern Memorial Hospital (CME))
Sarah Baggs
 c/o Northwestern Memorial HealthCare
675 North St. Clair Street
Galter 3-104H
Chicago, IL 60611

Please Type or Print

Last Name ___________________________________________________________ First Name ___________________________________________________________

- Physician  - Trainee, Nurse, or Other HCP

Title _____________________________________________________________________________________________________________________

Institution __________________________________________________________________________________________________________________________________________________________

Address __________________________________________________________________________________________________________________________________________________________

City ___________________________ State ___________________ ZIP Code ________________

E-mail (Required) ___________________________________________________________ Your registration confirmation will be e-mailed

Specialty __________________________________________________________________________________________________________________________________________________________

Special Dietary Requirements ______________________________________________________ Advance notification required

Disability Accommodations ______________________________________________________________________________________________________________________________________________ Please advise us of your needs

How did you hear about our program?

- Brochure  - E-mail  - Website  - Word of Mouth

© August 2018 by Northwestern Medicine. All rights reserved.