About the Course

Welcome to the 8th Annual Cleveland Clinic Neurology Update. On behalf of the Neurological Institute at the Cleveland Clinic we would like to welcome you to our annual course and hope you find it valuable in your continuing care of patients with neurological disease. We continue to modify the course based in large part on changes in the field and evaluations from prior participants. We encourage our speakers to use a case-based approach and to focus on clinically meaningful information. Last year we added smaller group breakout sessions for a more connected interaction which will again be incorporated into the review and focus on acute stroke management, head injury-concussion, and Parkinson's management. All participants will have a chance to attend each session, but the breakout method will allow more give-and-take with the speakers. The course will also continue to offer Self-Assessment credits approved by the American Board of Psychiatry and Neurology for Maintenance of Certification mandated by ABMS.

This year we have included key areas in neurology including topics in back pain, epilepsy, brain tumor, dementia, multiple sclerosis, and headache. We will have new sessions on acute neuromuscular syndromes including myasthenia gravis and Guillain Barré and chronic neuromuscular syndromes including myopathies and ALS. We will also cover neuro-ophthalmology and have a session on integrated medicine. Also new this year will be surgical cases including normal pressure hydrocephalus management and the use of baclofen pumps, pain pumps and dorsal column stimulators. Make sure you bring all your knowledge for the not to be missed Neuro Jeopardy and back by popular demand will be historical vignettes.

Alex Rae-Grant, MD, FRCP(C)
Course Co-Director

Glen Stevens, DO, PhD, FAAN
Course Co-Director

Target Audience

This course is directed towards neurologists, internists and family practice physicians, physician assistants, nurses and others involved in the diagnosis and treatment of neurological disorders.

Objectives

Upon completion of this activity, the participant will be able to:

- Describe the impact of recent evidence on MS disease management strategies.
- Summarize the most recent approaches to diagnosis and treatment of various dementias.
- Review the safety and efficacy data on new antiepileptic drugs to treat epilepsy.
- Summarize the revisions to the headache classification criteria and describe their best use in clinical practice.
- Critically appraise the safety and efficacy data on recent therapies for neuromuscular diseases and describe their implication for clinical practice.
- Define best practices for the assessment and management of concussion, back pain, stroke, and Parkinson’s Disease.
Alex Rae-Grant, MD, FRCP(C)
Clinical Associate Professor
Cleveland Clinic Lerner College of Medicine
Mellen Center for Multiple Sclerosis Treatment and Research
Neurological Institute

Glen Stevens, DO, PhD, FAAN
Section Head, Rose Ella Burkhardt Brain Tumor and Neuro-Oncology Center
Neurological Institute

Jinny Tavee, MD
Medical Director, Neuromuscular Division
Associate Professor
Northwestern University School of Medicine
Chicago, IL

Hubert Fernandez, MD
Professor
Cleveland Clinic Lerner College of Medicine
Director, Center for Neuro-Restoration
Neurological Institute

M. Shazam Hussain, MD
Associate Professor
Cleveland Clinic Lerner College of Medicine
Head, Cleveland Clinic Stroke Program
Interim Director, Cerebrovascular Center
Neurological Institute

Lara Jehi, MD
Associate Professor
Cleveland Clinic Lerner College of Medicine
Staff, Epilepsy Center
Neurological Institute

James B. Leverenz, MD
Director, Cleveland Lou Ruvo Center for Brain Health
Neurological Institute

Yuebing Li, MD, PhD
Staff, Neuromuscular Center
Neurological Institute

Sean Nagel, MD
Assistant Professor
Cleveland Clinic Lerner College of Medicine
Staff, Center for Neuro-Restoration
Neurological Institute

Andrew Russman, DO
Co-Medical Director, Concussion Center
Neurological Institute

Greg Kosmorsky, DO
Staff, Ophthalmology
Cole Eye Institute

Jennifer Kriegler, MD
Associate Professor
Cleveland Clinic Lerner College of Medicine
Staff, Center for Neuro-Restoration
Neurological Institute
### Agenda

**Friday, August 4, 2017**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00 am</td>
<td>Registration/Continental Breakfast/Exhibits/SAE Paper Pre-Test</td>
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<tr>
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<td>SAE Paper Pre-Test – written test only for those pursuing SAE credit who did not complete the online pre-test prior to the conference.</td>
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<tr>
<td>8:00 am</td>
<td>Introduction – Alex Rae-Grant and Glen Stevens – Salon I</td>
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<tr>
<td>8:10 am</td>
<td>MS Disease Management – Alex Rae-Grant</td>
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<tr>
<td>8:50 am</td>
<td>MS Cases – Alex Rae-Grant</td>
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<tr>
<td>9:10 am</td>
<td>Neuro-oncology Review – Glen Stevens</td>
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<td>9:50 am</td>
<td>Refreshment Break &amp; Exhibits</td>
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<td>10:10 am</td>
<td>Neuromuscular 1: Acute Neuromuscular Syndromes – Yuebing Li</td>
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<tr>
<td>10:50 am</td>
<td>Neuromuscular 2: Chronic Neuromuscular Syndromes – Yuebing Li</td>
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<tr>
<td>11:30 am</td>
<td>Historic Vignette and Panel Discussion/Q&amp;A:</td>
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<td></td>
<td>Alex Rae-Grant, Glen Stevens and Yuebing Li</td>
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<tr>
<td>12:00 pm</td>
<td>Buffet Lunch – Salon II</td>
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<tr>
<td>1:00 pm</td>
<td>Review of Newer Antiepileptic Medications – Lara Jehi</td>
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<tr>
<td>1:50 pm</td>
<td>Epilepsy Cases – Lara Jehi</td>
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<td>2:30 pm</td>
<td>Epilepsy Q&amp;A – Lara Jehi</td>
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<td>2:40 pm</td>
<td>Refreshment Break &amp; Exhibits</td>
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<tr>
<td>3:00 pm</td>
<td>Neuro Jeopardy – Alex Rae-Grant and Glen Stevens</td>
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<tr>
<td>4:00 pm</td>
<td>Adjourn</td>
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**ABPN Self-Assessment Examination (SAE)**

The American Board of Psychiatry and Neurology has reviewed the 2017 Neurology Update – A Comprehensive Review for the Clinician and has approved this program as part of a comprehensive Self-Assessment Program which is mandated by the ABMS as a necessary component of maintenance of certification. Approved for 8 Category 1 CME credits for Self-Assessment.

You will be required to complete the pre-test (online prior to conference or written test at the conference) and attend the conference in order to obtain Self-Assessment credit. The answers to the test questions will be addressed during the lectures.
Saturday, August 5, 2017

7:30 am  Registration/Continental Breakfast/Exhibits

Interactive Case-based Breakout Sessions

Attendees will be assigned to a room and the speakers will rotate through, discussing each topic below.

Topics:
- Acute Stroke Management Cases – M. Shazam Hussain
- Head Injury: Concussion Cases – Andrew Russman
- Parkinson’s Disease Management Cases – Hubert Fernandez

8:00-8:10 am  Breakout Session Introductions– General Session Room – Salon I

8:10 am  Breakout Session 1

9:10 am  Breakout Session 2

10:10 am  Refreshment Break

10:30 am  Breakout Session 3:

11:30 am  Audience Response Questions & Answers from Breakout Sessions

Salon I

11:50 am  Lunch Buffet – Salon II

12:50 pm  Dementia Update: Cases – James Leverenz

1:30 pm  Dementia Update: Where Do We Stand with Biomarkers and AD Disease Management? – James Leverenz

2:10 pm  Refreshment Break & Exhibits

2:30 pm  Headache 101: General Review of Therapy – Jennifer Kriegler

3:10 pm  Headache Cases: Novel and Challenging – Jennifer Kriegler

3:50 pm  Historic Vignette and Panel Discussion/Q&A: Alex Rae-Grant, Glen Stevens, Jennifer Kriegler, James Leverenz

4:20 pm  Adjourn

Sunday, August 6, 2017

7:30 am  Registration/Continental Breakfast/Exhibits

8:00 am  Management of Back Pain – Sean Nagel

8:40 am  Pumps, Shunts and Stimulators – Sean Nagel

9:20 am  Neuromuscular 3: Neuropathy Evaluation including Small Fiber and Autonomic Neuropathies – Jinny Tavee

10:00 am  Refreshment Break & Exhibits

10:20 am  Neuro-ophthalmology – Greg Kosmorsky

11:00 am  Integrative Medicine – Jinny Tavee

11:30 am  Historic Vignette and Panel Discussion/Q&A: Alex Rae-Grant, Glen Stevens, Sean Nagle, Greg Kosmorsky, Jinny Tavee

12:00 pm  Adjourn
Location
The Ritz-Carlton, Washington DC
1150 22nd Street, NW
Washington, DC 20037
Phone: 202.835.0500

Hotel Accommodations
A block of rooms has been reserved at The Ritz-Carlton, Washington DC. To make your reservation, contact the hotel directly at 202.835.0500 or 1.800.241.3333 and mention the “Cleveland Clinic Neurology Update” to receive the special rate of $250 per night plus tax. You may also make your reservation online at www.ritzcarlton.com using code CCFCCFA. To secure the course rate, you must make your reservation by Wednesday, July 13, 2017.

The Ritz-Carlton is:
• 40 minutes east of Dulles International Airport
• 10 minutes (4.2 miles) north of Ronald Reagan Washington National Airport
• 10 minutes from the White House, the Smithsonian museums and many other historic sites

Parking
Discounted parking is available at The Ritz-Carlton, Washington DC for a special course rate of $38.00 for overnight valet and $32.00 for day valet parking (up to 12 hours). A self-parking garage is also available at the hotel and rates vary.

Information
For further information about this activity, contact Shana Spade at
Phone: 216.444.9380 or 800.223.2273 x49380
Email: spades@ccf.org

Faculty Disclosure Statement
The Cleveland Clinic Foundation Center for Continuing Education has implemented a policy to comply with the current Accreditation Council for Continuing Medical Education Standards for Commercial Support requiring resolution of all faculty conflicts of interest. Faculty declaring a relevant commercial interest will be identified in the activity syllabus.

Americans with Disabilities Act
The Cleveland Clinic Foundation Center for Continuing Education fully intends to comply with the legal requirements of the Americans with Disabilities Act. If you need assistance, please notify Shana Spade at 216.444.9380 or spades@ccf.org at least two weeks prior to the activity.
Accreditation

The Cleveland Clinic Foundation Center for Continuing Education is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Cleveland Clinic Foundation Center for Continuing Education designates this live activity for a maximum of 16.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Participants claiming CME credit from this activity may submit the credit hours to the American Osteopathic Association for Category 2 credit.

Application for CME credit has been filed with the American Academy of Family Physicians. Determination of credit is pending.

Registration and Cancellation Information

2017 Neurology Update – A Comprehensive Review for the Clinician

August 4-6, 2017
The Ritz-Carlton, Washington DC

Payment must be received prior to admittance to the course. Purchase orders are not accepted.

Register at: www.ccfcme.org/NeuroUpdate17

COURSE FEES
Includes syllabus, continental breakfasts, refreshment breaks and two buffet luncheons

<table>
<thead>
<tr>
<th>Category</th>
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<tr>
<td>Physician</td>
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<tr>
<td>Active Duty Military</td>
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<tr>
<td>Resident*/Fellow*</td>
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<tr>
<td>Cleveland Clinic Alumnus</td>
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<tr>
<td>Non-Physician</td>
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*Letter from Program Director or Chairman must be received in our office prior to the course to receive this fee.

If you would like to register using a credit card, please go to www.ccfcme.org/NeuroUpdate17 or call 216.448.8710 where it will be handled directly by a certified processor.

Registration deadline is 5:00 pm (EST), Tuesday, August 1, 2017. A request for a refund must be received in writing by July 21, 2017. No refunds will be given after July 21, 2017. A $50 cancellation fee will be deducted from the refund for all cancellations.

For questions about registration, call 216.448.8710 or email: cmeregistration@ccf.org.
August 4-6, 2017
The Ritz-Carlton, Washington DC

OBTAIN YOUR ENTIRE YEAR’S ABPN SAE REQUIREMENT FOR MAINTENANCE OF CERTIFICATION (MOC) BY ATTENDING THIS CONFERENCE

Featuring Self-Assessment Examination for the Clinician
A Comprehensive Review – 2017 Neurologic Update –