### **Neurology in Clinical Practice Online 2020 - Online**

### **Activity Description**

This online CME course provides a comprehensive, evidence-based review in recent advances in the evaluation, diagnosis, treatment and management of neurological disorders. The course consists of case-based presentations that serve as a primer of common neurological clinical problems.

### **Target Audience**

This activity is appropriate for providers who see patients with neurologic disease including: neurologists, psychiatrists, primary care physicians including internists and family care practitioners, and allied health personnel including nurse practitioners, physician assistants and nurses.

## **Learning Objectives**

Upon conclusion of this activity, participants should be able to:

- Utilization of this Mayo Clinic online (enduring materials) course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be in this course.
- Assess diagnosis and management of common neurological disorders
- Distinguish the potential etiologies of cerebrovascular diseases, headache, dementia, movement disorders, epilepsy, multiple sclerosis, and neuromuscular diseases
- Develop an appropriate treatment plan for cerebrovascular diseases, headache, dementia, movement disorders, epilepsy, multiple sclerosis, and neuromuscular diseases
- Compare benefits and risks of different therapies of treatment of seizures
- Recognize different treatment options for patients with spine diseases
- Formulate a plan for patients with nervous system malignancies and paraneoplastic
- Recognize and treat different types of neurologic infectious diseases
- Formulate an algorithm for evaluating patients with peripheral neuropathy, neuromuscular junction disorders, and ALS
- Develop palliative care and pain management strategies in neurologic diseases
- Recognize the difference between primary and secondary headache syndromes

Attendance at this Mayo Clinic course does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course.

### **Accreditation Statement**



In support of improving patient care, Mayo Clinic College of Medicine and Science is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

### **Credit Statement(s)**

### **AMA**

Mayo Clinic College of Medicine and Science designates this live activity for a maximum of 19.00 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

#### **ANCC**

Mayo Clinic College of Medicine and Science designates this live activity for a maximum of 19.00 ANCC nursing contact hours. Nurses should claim only the credit commensurate with the extent of their participation in the activity

### **AOA**

This program has been accredited by the American Osteopathic Association for 19.00 credits of AOA Category 2-A.

### **Other Healthcare Professionals**

A record of attendance will be provided to all registrants for requesting credits in accordance with state nursing boards, specialty societies or other professional associations.

### **Disclosure Summary**

As a provider accredited by Joint Accreditation Interprofessional Continuing Education, Mayo Clinic College of Medicine and Science must ensure balance, independence, objectivity and scientific rigor in its educational activities. Course Director(s), Planning Committee Members, Faculty, and all others who are in a position to control the content of this educational activity are required to disclose all relevant financial relationships with any commercial interest related to the subject matter of the educational activity. Safeguards against commercial bias have been put in place. Faculty also will disclose any off label and/or investigational use of pharmaceuticals or instruments discussed in their presentation. Disclosure of these relevant financial relationships will be published in activity materials so those participants in the activity may formulate their own judgments regarding the presentation.

Listed below are individuals with control of the content of this program who have disclosed...

Relevant financial relationship(s) with industry:

Fred Michael Cutrer, M.D.

Neill Graff-Radford, M.D.

Consultant

Biohaven Pharmaceuticals

Grant/Research Support

Engaged in multicenter studies

funded by Lilly, Biogen, Abbvie

and Esai

Shyamal Mehta, M.D., Ph.D. Consultant Adamas Pharmaceuticals, Kyowa

Kirin, Abbott, Lundbeck, Neurocrine, CNS Ratings

Ronald Petersen, M.D., Ph.D. Consultant Roche, Inc.; Merck, Inc.; Biogen,

Inc.; Eisai, Inc.; Genentech, Inc. (Data Monitoring Committee)

Joseph Sirven, M.D. Grant/Research UCB

Consultant American Academy of

Neurology, Editor- in chief Brain

& Life en Espanol

Other Federal Aviation Administration

Eric Sorenson, M.D. Grant/Research Biogen and Cytokinetics in the

form of Clinical trial research

support

Juliana VanderPluym, M.D. Consultant Teva, Healint

Grant Amgen, Electocore

Dean Wingerchuk, M.D. Consultant MedImmune, Novartis, Biogen,

Celgene, Genentech, TG Therapeutics, Arcus Medica, Third Rock Ventures, Reistone

Grant/Research Alexion and TerumoBCT

# No relevant financial relationship(s) with industry:

Allen Aksamit, M.D. Neeraj Kumar, M.D.

Farwa Ali, M.D. Alfonso (Sebastian) Lopez Chiriboga, M.D.

William Cheshire, M.D. Katherine H. Noe, M.D., Ph.D.

H. Gordon Deen, M.D.

Brynn Dredla, M.D.

Eric Eggenberger, M.D., Ph.D.

Anteneh Feyissa, M.D.

Julie Hammack, M.D.

Ashley Pena, M.D.

Maisha Robinson, M.D.

Todd Rozen, M.D.

Devon Rubin, M.D.

Eugene L. Scharf, M.D.

Josephine F. Huang, M.D.

Jason Siegel, M.D.

Mark Keegan, M.D.

Julie Khoury, M.D.

Bryan Woodruff, M.D.

# References to off-label and/or investigational usage(s) of pharmaceuticals or instruments in their presentation:

H. Gordon Deen, M.D. Medtronic Infuse/bone morphogenetic

protein

label use

Ashley Pena, M.D. Quetiapine Generic medication for off

Clozapine Donepezil Memantine Clonazepam Pregabalin

Eugene L. Scharf, M.D. AstraZeneca Ticagrelor

Juliana VanderPluym, M.D. There are no FDA approved Discussion of off-label use will

treatments for concussion. be indicated as such.

James Watson, M.D. Multiple pharmacologic Off label treatment of

treatments will be discussed neuropathic pain with

disclosure

Bryan Woodruff, M.D. Multiple Cholinesterase inhibitors

Multiple Memantine

For disclosure information regarding Mayo Clinic School of Continuous Professional Development accreditation review committee member(s) please visit: <a href="https://ce.mayo.edu/content/disclosures">https://ce.mayo.edu/content/disclosures</a>.

### **Mayo Disclaimer**

Participation in this Mayo Clinic educational activity does not indicate nor guarantee competence or proficiency in the performance of any procedures which may be discussed or taught in this course. You should be aware that substantive developments in the medical field covered by this recording may have occurred since the date of original release.

### **Prerequisites for Participation**

There are no prerequisites needed prior to participating in this education activity.

### **How to Obtain Credit**

To obtain credit, complete the post-test, evaluation and submit.

### Method of Participation

Participation in this activity consists of reviewing the online videos and completing the post-test and evaluation.

# **Release and Expiration Dates**

Release Date: July 20, 2020 Expiration Date: July 20, 2023

### **Acknowledgement of Commercial Support**

This course is supported, in part, by educational and in-kind grants and exhibit fees from the following companies in accordance with ACCME Standards.

Acadia Pharmaceuticals, Inc. (Exhibitor)

Akcea Therapeutics, Inc. (Exhibitor)

Alexion (Exhibitor)

Amgen/Novartis (Exhibitor)

Biogen (Exhibitor)

Biohaven Pharmaceuticals (Exhibitor)

Boston Scientific (Exhibitor)

Bristol Myers Squibb (Exhibitor)

Genentech, Inc. (Exhibitor)

Greenwich Biosciences (Exhibitor)

Merz Therapeutics (Exhibitor)

Mitsubishi Tanabe Pharma America (Exhibitor)

# Faculty and Course Director Listing and Credentials

### **Course Directors**

Devon Rubin, M.D.

Maisha Robinson, M.D.

### Mayo Faculty

Allen Aksamit, M.D.

Farwa Ali, M.D.

William Cheshire, M.D.

Fred Michael Cutrer, M.D.

H. Gordon Deen, M.D.

Brynn Dredla, M.D.

Eric Eggenberger, M.D., Ph.D.

Anteneh Feyissa, M.D.

Neill Graff-Radford, M.D.

Julie Hammack, M.D.

Josephine F. Huang, M.D.

Mark Keegan, M.D.

Julie Khoury, M.D.

Neeraj Kumar, M.D.

Alfonso (Sebastian) Lopez Chiriboga, M.D.

Shyamal Mehta, M.D., Ph.D.

Katherine H. Noe, M.D., Ph.D.

Ashley Pena, M.D.

Ronald Petersen, M.D., Ph.D.

Maisha Robinson, M.D.

Todd Rozen, M.D.

Devon Rubin, M.D.

Eugene L. Scharf, M.D.

Jason Siegel, M.D.

Joseph Sirven, M.D.

Eric Sorenson, M.D.

Juliana VanderPluym, M.D.

James Watson, M.D.

Dean Wingerchuk, M.D.

Bryan Woodruff, M.D.

### Copyright

Mayo Foundation for Medical Education and Research. All rights reserved. Copyright 2020