

## **Headache Management: Creating Migraine Warriors**

### **Activity Description**

This online course will provide learners with an update in the diagnosis and management of migraine and other headache disorders. Content covered will arm primary care and sub-specialist practitioners in diagnosing and treating headache disorders, including migraine and others. Treatments are a trial and error so it is important to be aware of the latest updates. There have been significant developments in the treatment of episodic and chronic migraine in the last couple of years which will be covered in this course.

### **Target Audience**

All practitioners who evaluate and treat patients with migraine and other headache disorders including internists, practitioners in family medicine, emergency medicine, and OB/GYN, neurologists and allied health professionals.

### **Learning Objectives**

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

- Recall the diagnosis and management of secondary headache disorders, including thunderclap headache and giant cell arteritis.
- Determine comprehensive treatment plans for primary headache disorders frequently encountered in both the primary care setting and general neurological practice, including episodic and chronic migraine.
- Recall new and emerging treatments for episodic and chronic migraine, including targeted treatments and noninvasive neuromodulation.

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**

The Mayo Clinic College of Medicine and Science designates this enduring material for a maximum of 9.00 *AMA PRA Category 1 Credit(s)*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

#### **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.

#### **Financial relationship(s):**

David W. Dodick, M.D	Consultant <u>and</u> Honoraria	Amgen, Autonomic technologies, Axsome, Aural Analytics, Allergan, Alder, Biohaven, Charleston Laboratories, Dr Reddy's Laboratories/Promius, Electrocore LLC, Eli Lilly, eNeura, Neuro Relief, Novartis, Ipsen, Impel, Satsuma, Supernus, Sun Pharma (India), Theranica, Teva, Vedanta, WL Gore, Zosano, ZP Opco, Foresite Capital, Oppenheimer
	Other	CME fees or Royalty payments: Healthlogix, Medicom, Medlogix, Mednet, Miller Medical, PeerView, WebMD/Medscape, Chameleon, Academy for Continued Healthcare Learning, Universal meeting management, Haymarket, Global Scientific Communications, UpToDate, Oxford University Press, Cambridge University Press, Wolters Kluwer; Stock options: Aural analytics, Healint, Theranica, Second Opinion/Mobile Health, Epien, GBS/Nocira, Ontologics, King-Devick Technologies. Consulting without fee: Aural Analytics, Healint, Second Opinion/Mobile Health, Epien; Board of Directors: Epien, Ontologics, King-Devick Technologies. Patent :17189376.1-1466:vTitle: Botulinum Toxin Dosage Regimen for Chronic Migraine Prophylaxis without fee. Professional society fees or reimbursement for travel: American Academy of Neurology, American Brain Foundation, American Headache Society, American Migraine Foundation, International Headache Society, Canadian Headache Society. Other: Use agreement through employer: Myndshft
Narayan R. Kissoon, M.D.	Grant/Research Support	
Carrie (Beth) E. Robertson, M.D.	Honoraria	Investigator initiated study grant with Nevro Corporation for an unrelated topic investigating spinal cord stimulation in diabetic peripheral neuropathy.
Todd J. Schwedt, M.D.	Advisory board	UpToDate-author

Jonathan H. Smith, M.D.	Consultant	Amgen, Alder, Eli Lilly
	Grant/Research Support	Alder, Allergan, Amgen, Aural Analytics, Cipla, Dr. Reddy's, Eli Lilly, Ipsen Bioscience, Nocira, Novartis, Second Opinion, Teva
	Other	Amgen
Amaal J. Starling, M.D.	Consultant	UpToDate royalties for "Preventive treatment of migraine"
Juliana H. VanderPluym, M.D.	Consultant	
	Grant/Research Support	Alder, eNeura, Amgen, Eli Lilly & Company Novartis
Jennifer V. Wethe, Ph.D.	Other	Teva, Healint
		Amgen
Richard S. Zimmerman, M.D.	Consultant	I am a salaried employee of Mayo Clinic, which has a financial interest in King-Devick technologies. The King-Devick Test in association with Mayo Clinic will be included in my presentation.
		Medtronic

**No Financial relationship(s):**

Marie D. Acierno, M.D.

Jamie M. Bogle, Au.D., Ph.D.

Maria M. Caselli

Fred (Michael) M. Cutrer, M.D.

Paru S. David, M.D.

Sanford M. Fineman, M.D.

Ivan Garza, M.D.

Rashmi B. Halker Singh, M.D.

Leland S. Hu, M.D.

Diane F. Jelinek, Ph.D.

Julie A. Khoury, M.D.

Natasha J. Mendez, APRN, FNP-C

David C. Patchett, D.O.

Susan E. Reigel

Jennifer Robblee

Jennifer M. Slonaker, APRN, M.S.N., FNP-C

Cynthia O. Townsend, Ph.D., L.P.

Theresa Malin

**Reference to off-label usage(s) of pharmaceuticals or instruments in their presentation:**

Paru S. David, M.D. Teva, Warner Chilcott, Merck LoSeasonique, LoEstrin, Nuvaring

David W. Dodick, M.D. Amgen, Allergan, Alder, Biohaven, Teva, Eli Lilly, Novartis, Electrocore, eNeura, Theranica, Autonomic technologies Anti-CGRP monoclonal antibodies/drugs, Neurostimulation technologies/devices

Ivan Garza, M.D.

Cluster headache acute treatment is an FDA-labeled indication for: subcutaneous sumatriptan. GammaCore non-invasive vagus nerve stimulator approved by FDA for acute treatment in episodic cluster headache and as adjunctive use for the preventive treatment of cluster headache in adult patients. All other interventions are used without FDA label for the indications discussed

Narayan R. Kisson, M.D.

Peripheral nerve stimulators and spinal cord stimulators

Jennifer Robblee, M.D.

Nerve blocks, Steroids, iv Valproic acid, anti-emetics, Benadryl, iv magnesium sulfate, iv Keppra, Lasix, Diamox (NB there is no label indications for status migrainosus)

Carrie (Beth) E. Robertson, M.D.

Many medicines discussed for treatment of migraine during pregnancy are off label

Todd J. Schwedt, M.D.

I will show a few tables on slides 20-24 that summarize published guidelines for the acute treatment of migraine attacks. These tables include some medications that are off-label.

For disclosure information regarding Mayo Clinic School of Continuous Professional Development accreditation review committee member(s) and staff, please go here to [review disclosures](#).

### **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 video content and completing the post-test and evaluation.

### **Release and Expiration Dates**

Release Date: 04/02/2020

Expiration Date: 04/01/2023

### **Acknowledgement of Commercial Support**

No commercial support was received in the production of this activity.

### **Faculty and Course Director Listing and Credentials**

#### **Course Director(s)**

Rashmi B. Halker Singh, M.D.

Amaal J. Starling, M.D.

#### **Faculty(s)**

Marie D. Acierno, M.D.

Jamie M. Bogle, Au.D., Ph.D.

Maria M. Caselli

Fred (Michael) M. Cutrer, M.D.

Paru S. David, M.D.

David W. Dodick, M.D.

Sanford M. Fineman, M.D.

Ivan Garza, M.D.

Rashmi B. Halker Singh, M.D.

Leland S. Hu, M.D.

Diane F. Jelinek, Ph.D.

Julie A. Khoury, M.D.

Narayan R. Kissoon, M.D.

Natasha J. Mendez, APRN, FNP-C

David C. Patchett, D.O.

Susan E. Reigel

Carrie (Beth) E. Robertson, M.D.

Jennifer Robblee

Todd J. Schwedt, M.D.

Jennifer M. Slonaker, APRN, M.S.N., FNP-C

Jonathan H. Smith, M.D.

Amaal J. Starling, M.D.

Cynthia O. Townsend, Ph.D., L.P.

Juliana H. VanderPluym, M.D.

Jennifer V. Wethe, Ph.D.

Richard S. Zimmerman, M.D.

### **Program Schedule**

Approach to Headache	Jerry W. Swanson, M.D., M.H.P.E.	0:31:33
Neuro-Ophthalmology: Intracranial Hypertension & Giant Cell Arteritis	Marie D. Acierno, M.D.	0:57:12
Low Pressure Headache: Diagnosis & Treatment	Jill C. Rau, M.D., Ph.D.	0:43:51
Thunderclap Headache	Jonathan H. Smith, M.D.	0:23:53
Trigeminal Autonomic Cephalgias (TAC)	Ivan Garza, M.D.	0:36:56
Acute Therapy of the Migraine Attack	Todd J. Schwedt, M.D.	0:25:51
Preventive Treatment of Migraine	Jonathan H. Smith, M.D.	0:31:10
Post-Traumatic Headache: Bench to Bedside	VanderPluym, M.D.	0:29:40
Chronic Daily Headache Through Cases	F. Michael Cutrer, M.D.	0:34:20
Creating Migraine Warriors	Amaal J. Starling, M.D.	0:19:26
Headache Cases	Jerry W. Swanson, M.D., M.H.P.E.	0:27:07
Neuroimaging in Headache: ACR Clinical Guidelines	Leland S. Hu, M.D.	0:30:40
Status Migrainosus and Headache in the ER	Jennifer Robblee, M.D., M.Sc.	0:28:53
Autonomic Disorders and Migraine	Julie A. Khoury, M.D.	0:28:20
Interventional Management of Headache	Narayan R. Kisson, M.D.	0:28:57
Headache/Migraine	Cynthia O. Townsend, Ph.D., L.P.	0:30:06
Trigeminal Neuralgia Update	Richard S. Zimmerman, M.D.	0:30:43
	<b>Video Time</b>	<b>8:58:38</b>
Final Assessment: 18 questions x 30 sec per question	<b>Assessment Time</b>	<b>0:09:00</b>
	<b>Total Time</b>	<b>9:07:38</b>
	<b>Credit</b>	<b>9</b>

### Copyright

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