



AMERICAN  
**HEADACHE**  
SOCIETY®



*First  
Contact*

# HEADACHE

## *In Primary Care*

BY THE AMERICAN HEADACHE SOCIETY®

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# Disclosure Statement

Role	Organization
Site PI (no personal compensation)	Upsher-Smith: Topiramate XR (Qudexy®) for prevention of migraine in children 6-11 Amgen: Erenumab for the prevention of episodic and chronic migraine in adolescents 12-17 Eli Lilly: Lasmitidan for the acute treatment of migraine in adolescents 12-17
Editorial Board (no personal compensation)	American Migraine Foundation
Speaker (stipend)	American Headache Society First Contact and REACH programs

# Learning Objectives

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- Define migraine and review its epidemiology
- Discuss migraine pathophysiology
- Distinguish migraine from other headache disorders
- Review migraine management strategies
- Discuss health equity in headache medicine
- Identify and dispel common migraine myths

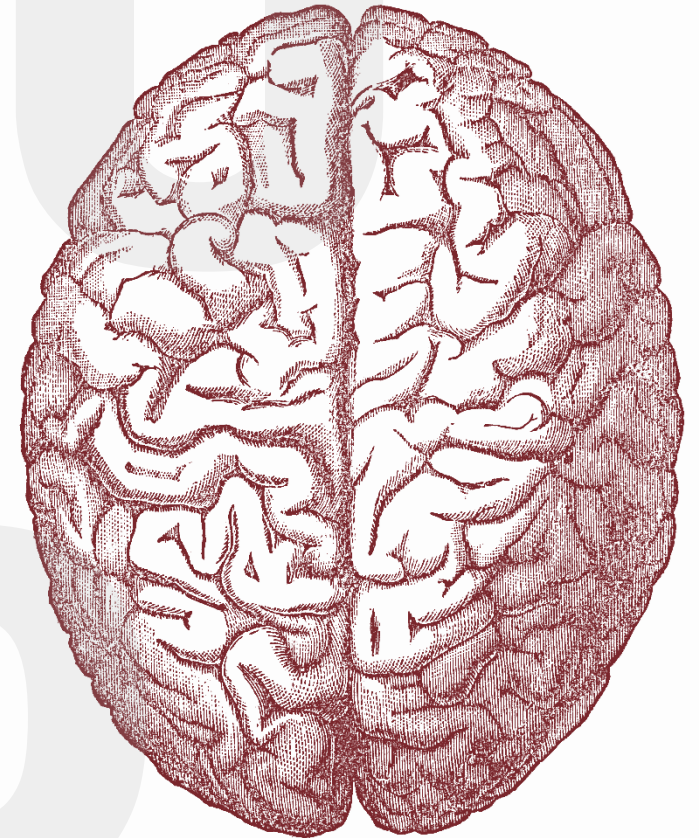
# What is Migraine?

# Migraine Definition

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An **inherited disorder** characterized by attacks including a variety of **neurological** and **gastrointestinal** symptoms with or without severe headache.

Neurological symptoms may include sensory, vestibular, and cognitive disturbances.



# Migraine Prevalence

**1 billion worldwide**



**1 in 5 women**



**1 in 16 men**



**1 in 11 children**

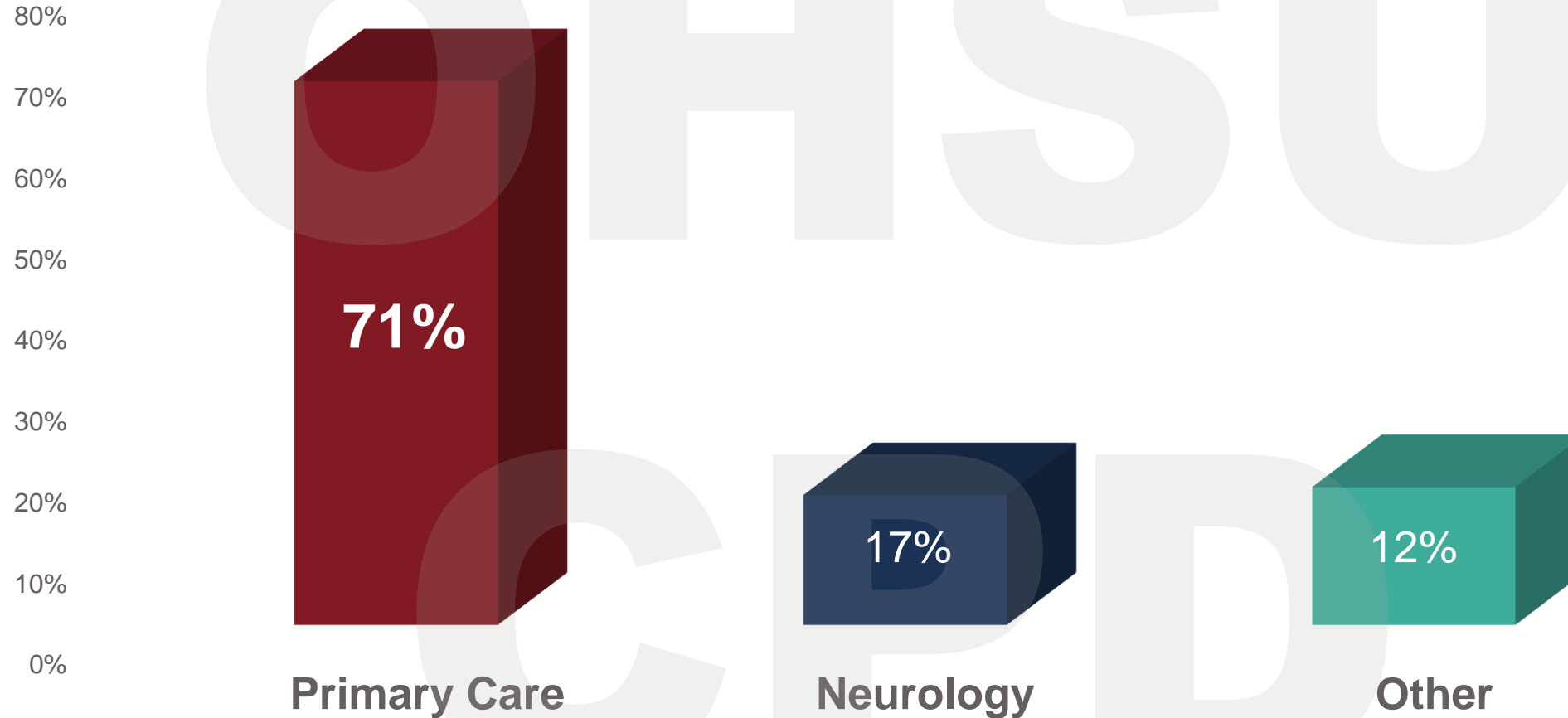


**1 in 4 homes**



Headache. 2021;61:1021-1039; Lancet Neurol. 2018;17:954-976; Neurology. 2007;68:343-349; Curr Pain Headache Rep. 2013;17:341.

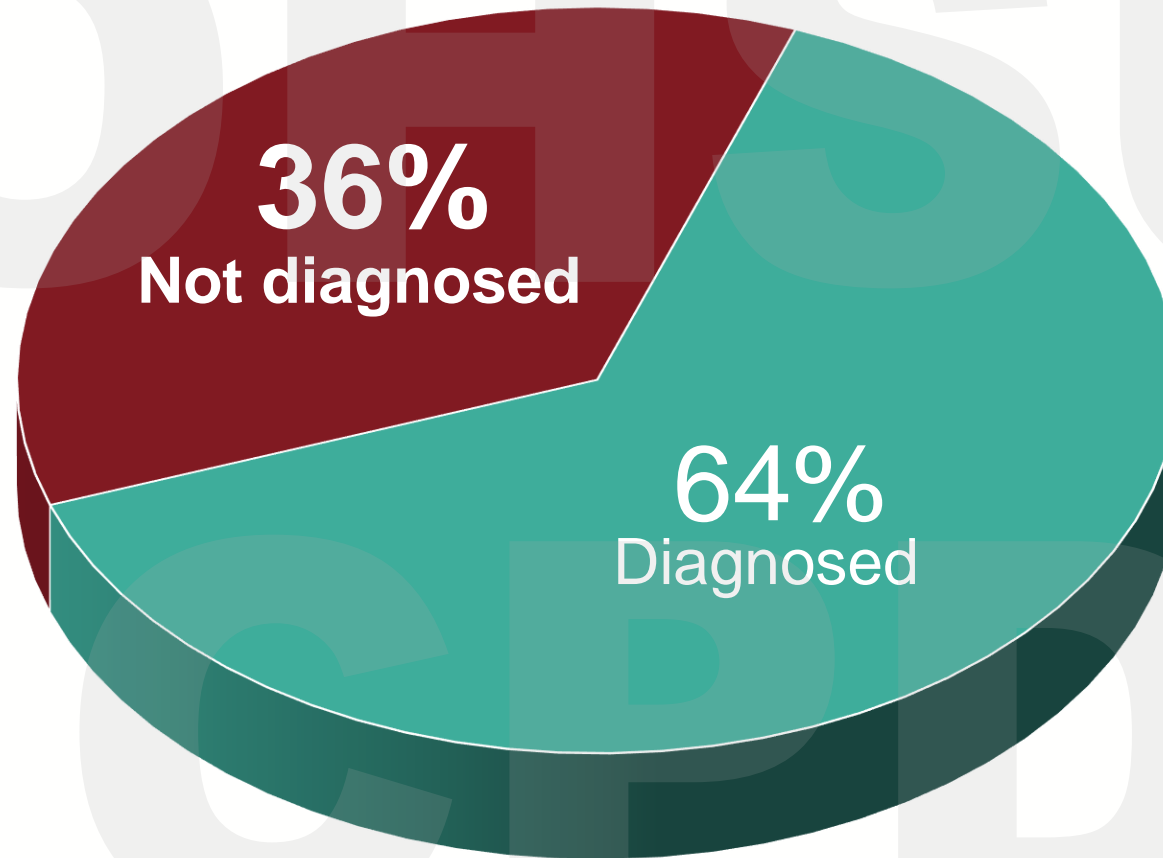
# Who Do Patients Consult for Migraine?



Headache. 2003;43:330-335. Headache. 2022 Feb;62:122-140.

# Migraine Remains Underdiagnosed

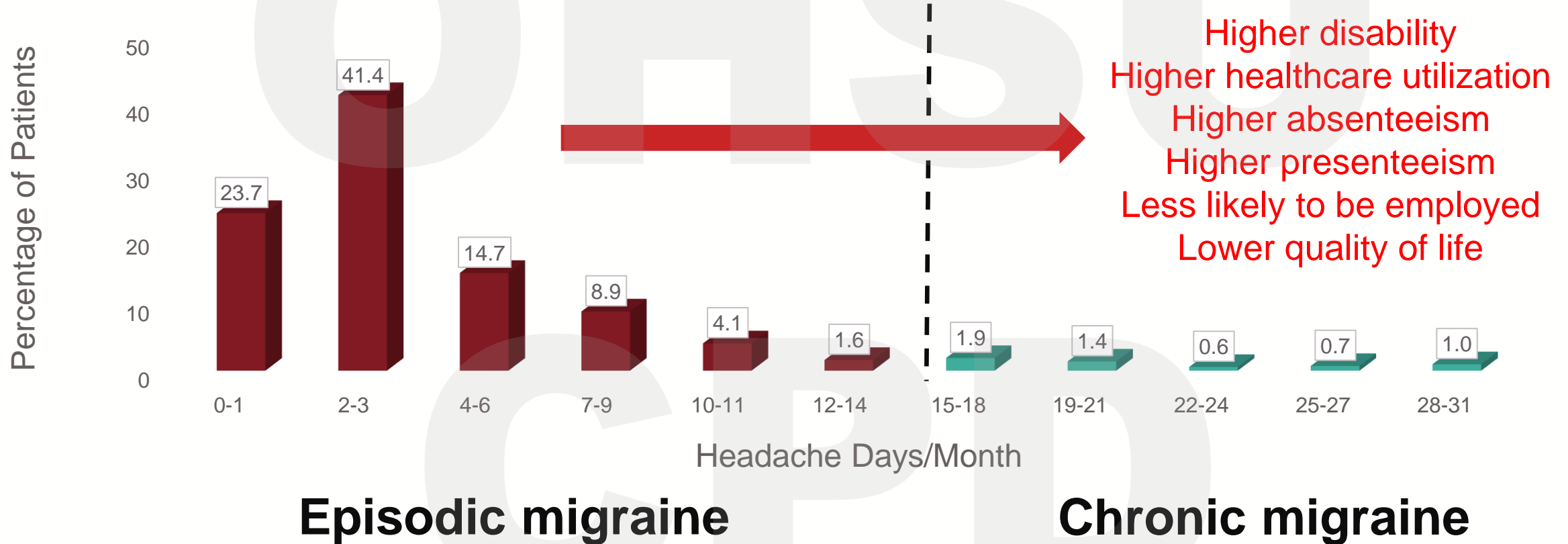
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US data from the CaMEO-1 prospective, observational, web-based cohort study conducted in 2021  
Cephalgia. 2023 Jun;43(6):3331024231180611.

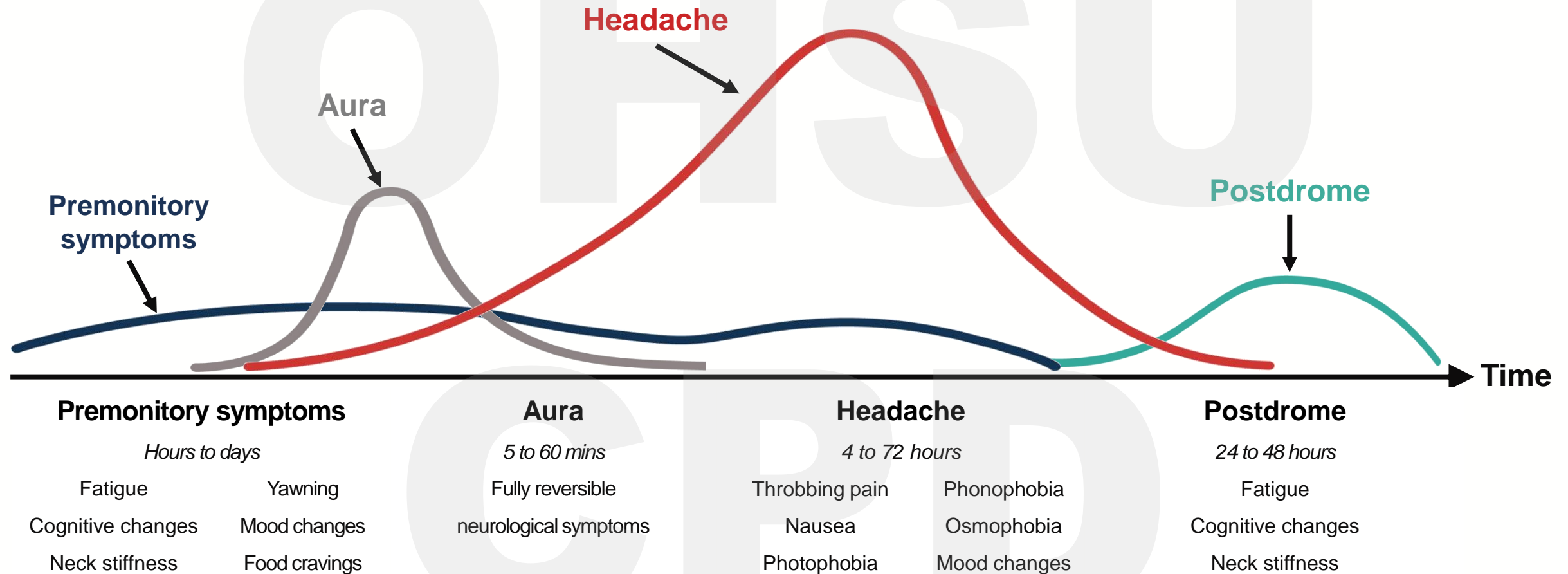


# Frequency of Headache Days Among Patients with Migraine



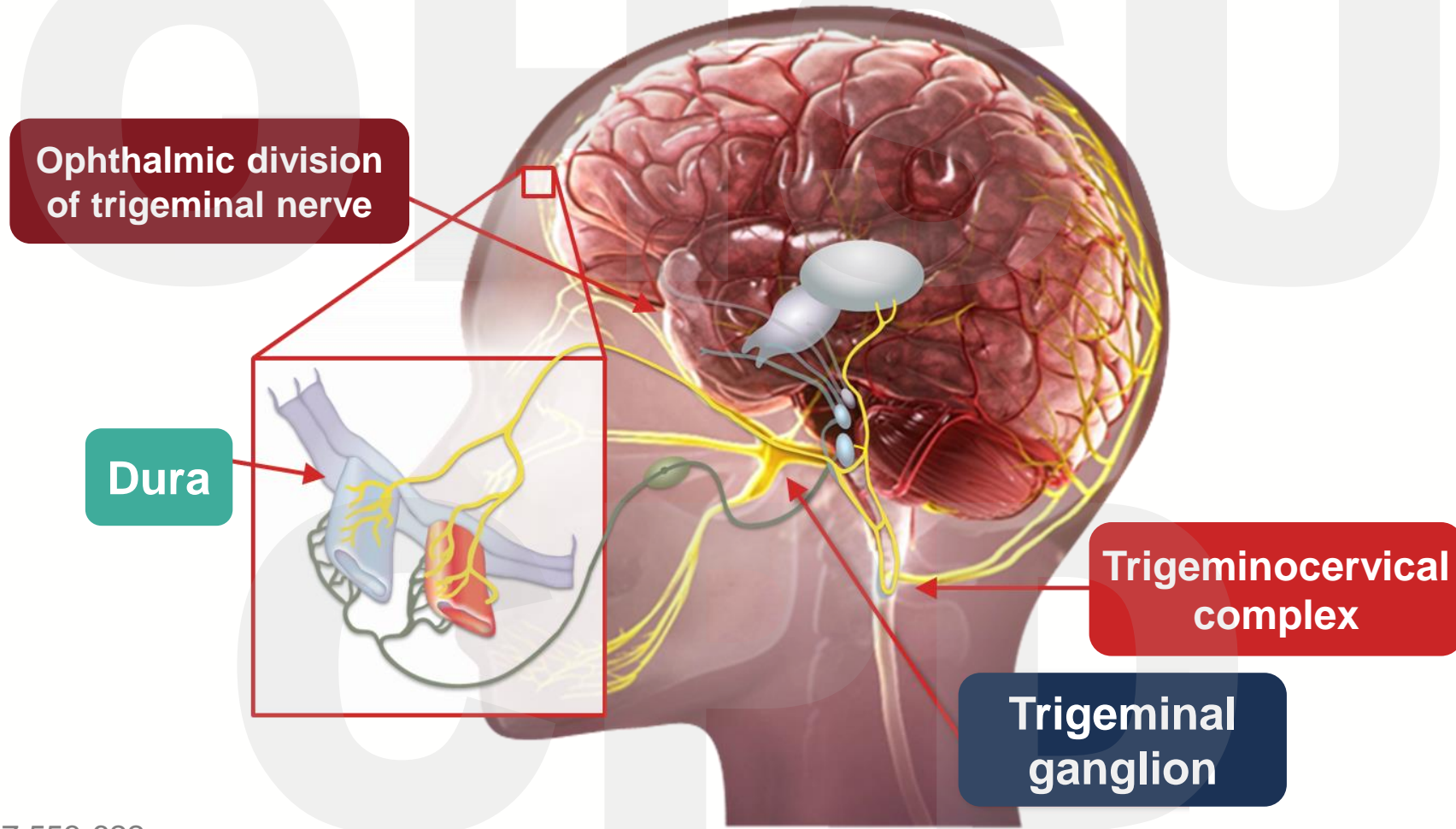
Cephalalgia. 2011;31:301-315; Headache. 2016;56:306-322. Headache. 2018;58:1579-1592.

# Phases of a Migraine Attack



Adapted from Drugs. 2018;78:411-437.

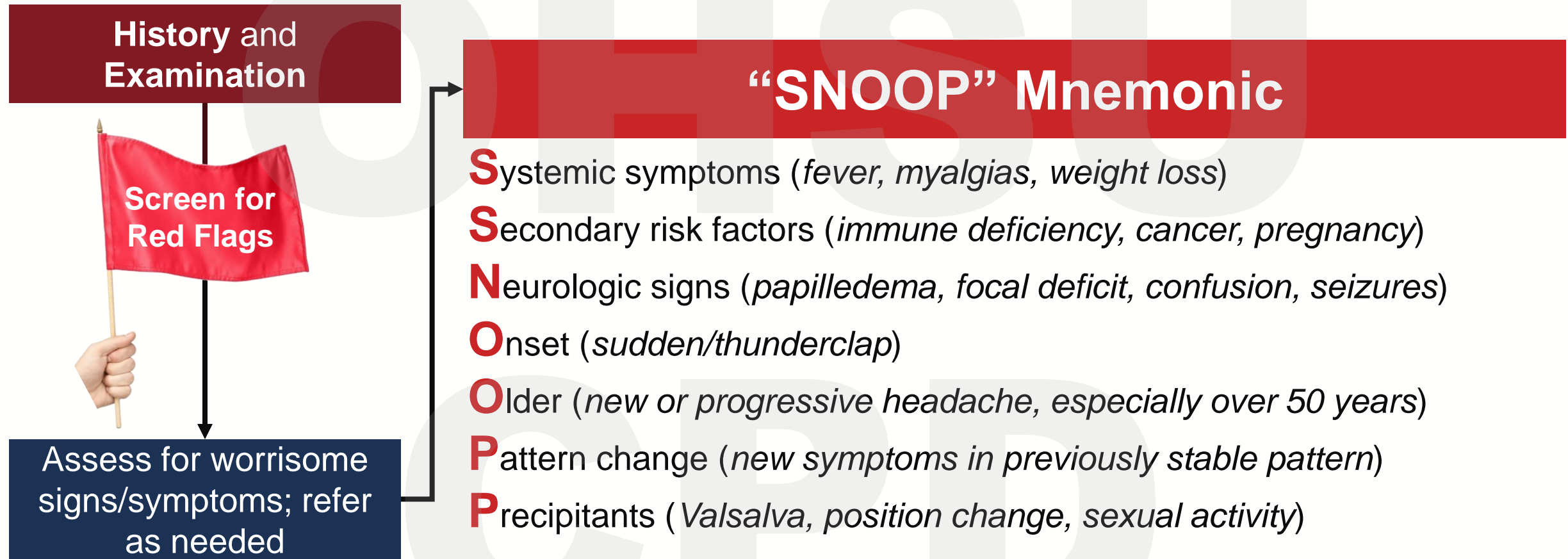
# Pathophysiology of Migraine



Physiol Revs. 2017;97:553-622.

# How Do I Diagnose Migraine?

# Rule Out Secondary Headache: When to be Concerned



Adapted from Continuum (Minneapolis). 2021;27:572-585.

# Migraine or Tension-type Headache?

	Migraine	Tension-type Headache
Duration	4-72 hours (2-72 in children)	30 minutes – 7 days
Location	Unilateral (40% bilateral)	Bilateral
Description of pain	Pulsating (50% non-pulsating)	Pressing/Tightening (non-pulsating)
Pain intensity	Moderate-severe	Mild-moderate
Effect of routine physical activity	Aggravated by	None
Nausea or vomiting	Yes	No
Photophobia or phonophobia	Both	No more than 1
Attributable	Not attributable to another disorder	Not attributable to another disorder

**NOTE:** Tension-type headache rarely presents as a chief complaint.  
If a patient is in your office for complaint of recurring headache, it is likely migraine.

Cephalalgia. 2018;38:1-211.



# 3-Question Screener: ID Migraine

During the **last 3 months**, did you have the following with your headaches:



## **P**hotophobia

Light bothered you (a lot more than when you don't have headaches)



## **I**mpairment

Your headaches limited your ability to work, study or do what you needed to do for at least one day



## **N**ausea

You felt nauseated or sick to your stomach

**“PIN” the migraine diagnosis**  
**“Yes” to 2 or 3 questions = 93% have migraine**

Neurology. 2003;61:375-382.

# How Do I Manage Migraine?

Acute Treatment

Preventive Treatment

Non-medication  
Treatments



# Medications for Acute Treatment

## Migraine-specific

- Triptans
- Gepants
- Ditans
- Ergots

## NSAIDs

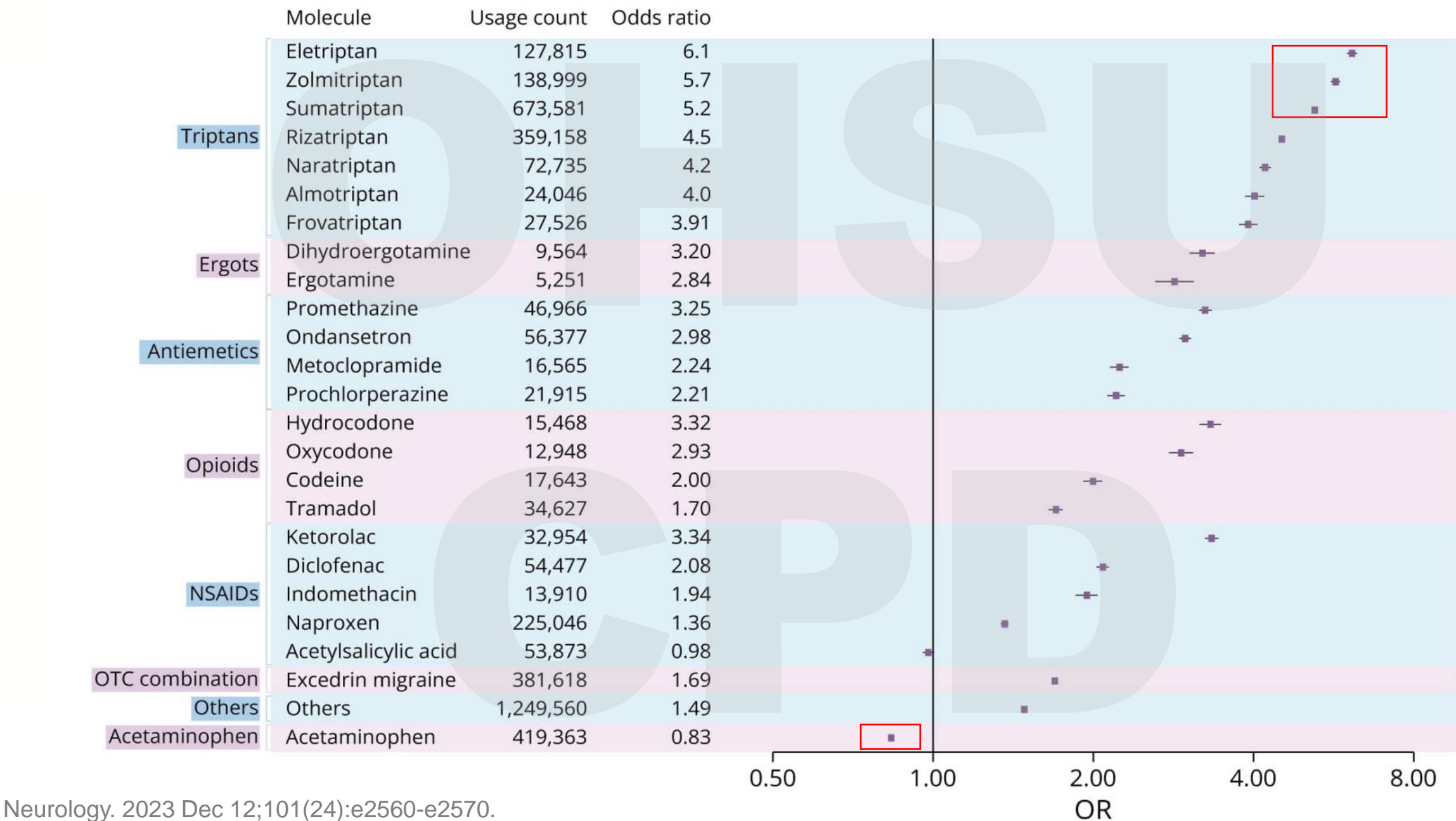
- Ibuprofen
- Naproxen
- Diclofenac
- Aspirin
- Celecoxib

## Also consider Dopamine antagonists

- Metoclopramide
- Prochlorperazine
- Promethazine

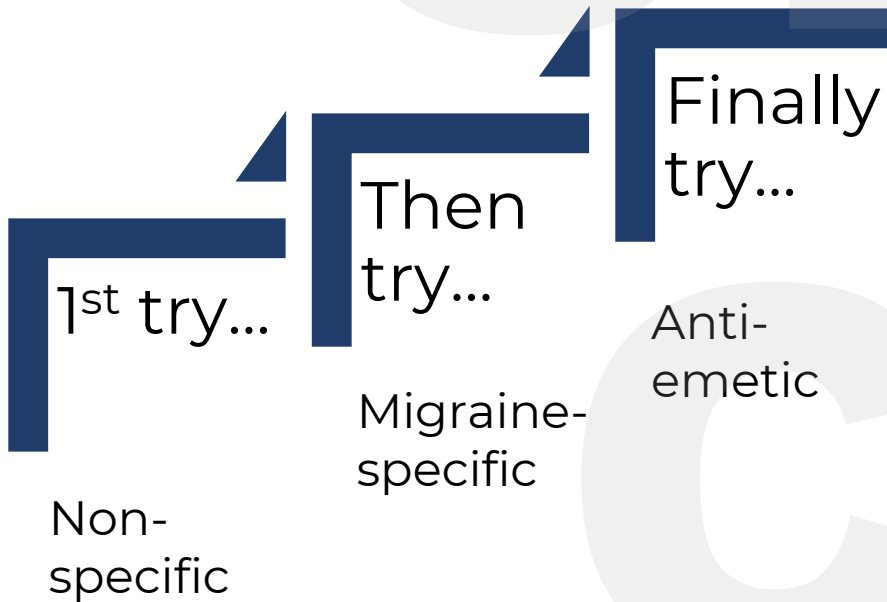
Headache. 2019;59:1-18Headache. 2015;55:778-93.

# Comparison of 25 Acute Migraine Medications Using Smartphone App Data

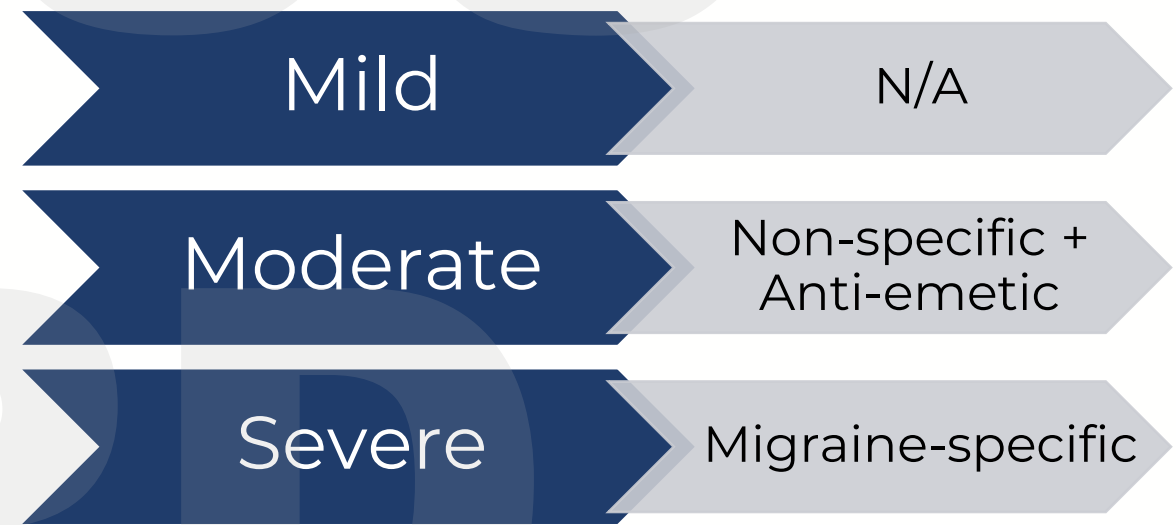


# Step vs Stratified Care

**STEP**  
within or across attacks



**STRATIFIED**  
by disease severity



JAMA. 2000;284:2599-605.

# Pearls: Acute Treatment of Migraine

Nausea/vomiting	Combine with anti-nausea medication, or pursue non-oral route of administration (e.g., nasal, subcutaneous)
Triptan side effects	Consider -triptan with good side effect profile (e.g., naratriptan, almotriptan), or lower the dose
Triptan not tolerated, or contraindicated	Select a different class (e.g., -gepant, -ditan)
Incomplete relief, or headache recurs	Increase dose or combine classes (e.g., migraine-specific, NSAID, dopamine antagonist)
Prefer non-medication treatment	Consider neuromodulation device
Medication overuse	Start migraine prevention, discuss medication overuse headache

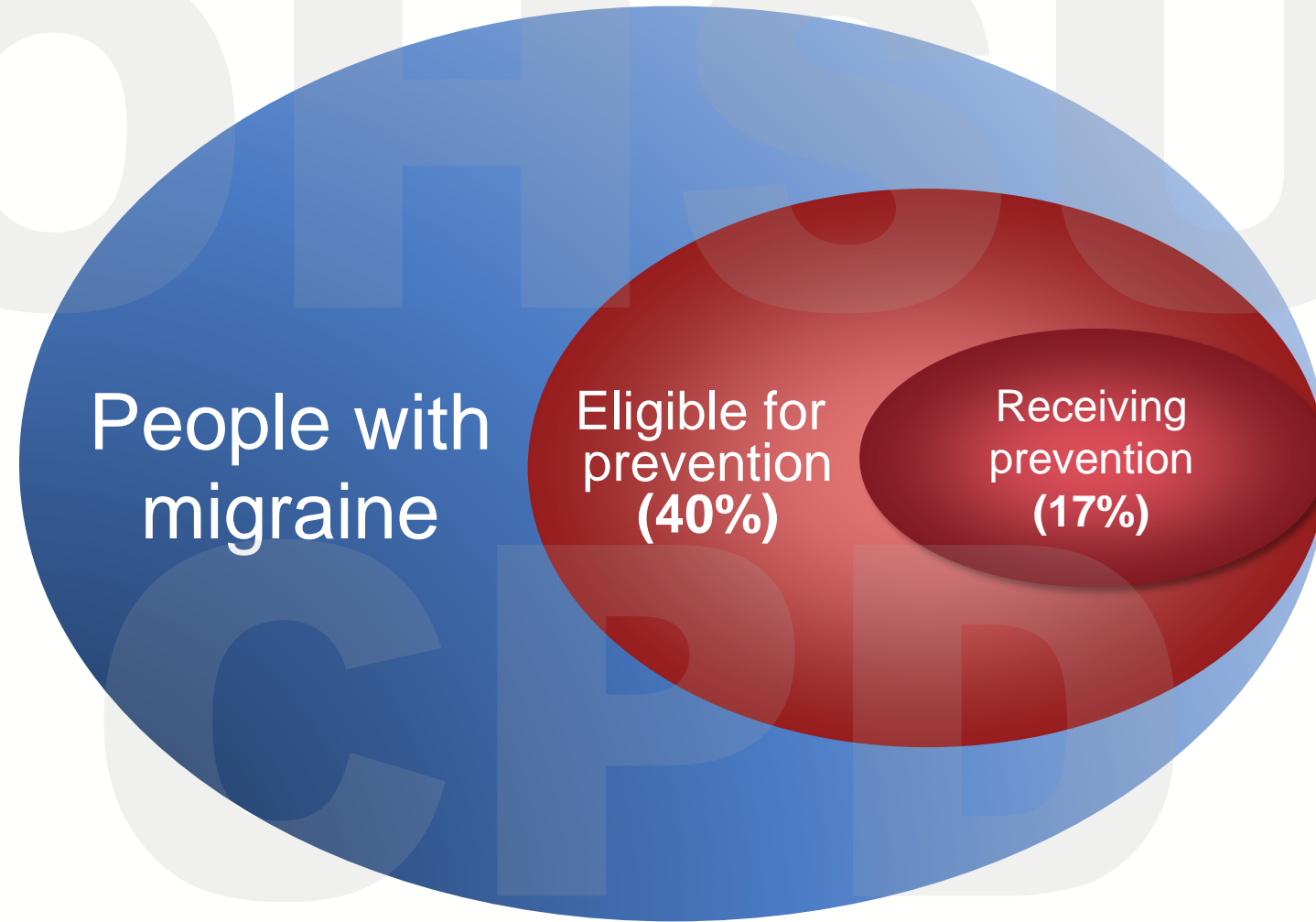
Headache. 2019;59:1-18. Continuum (Minneap Minn). 2021;27:597-612.

# How Do I Manage Migraine?

Preventive Treatment

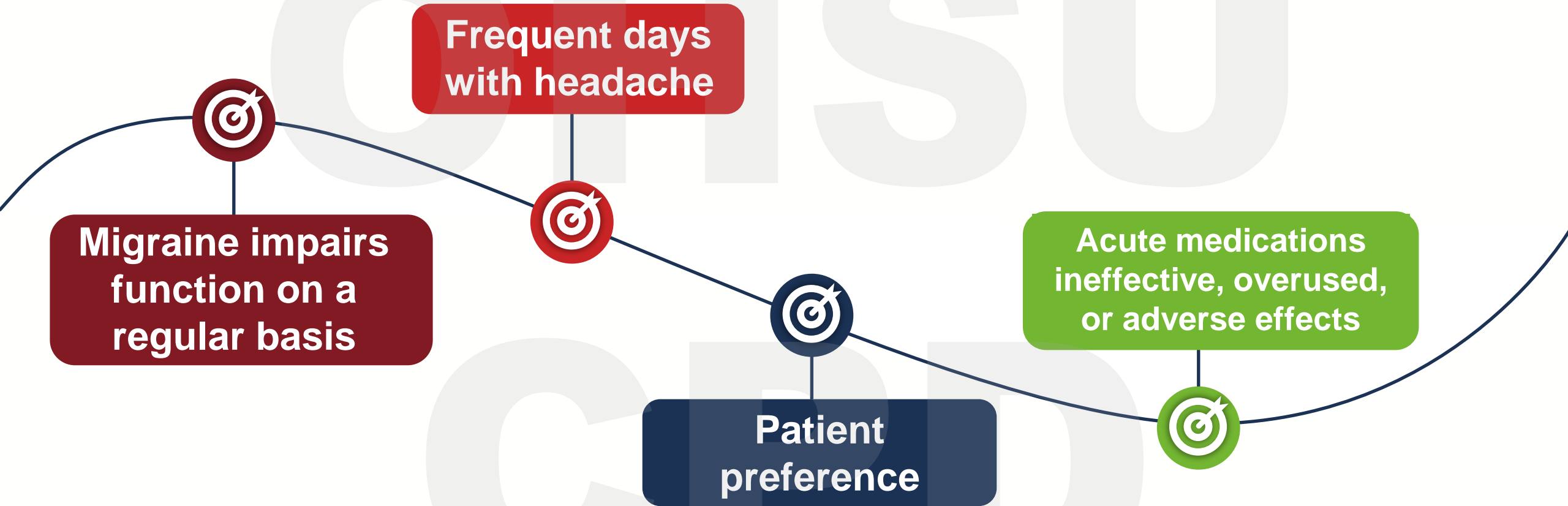
# Who Is Eligible for Preventive Treatment?

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Headache. 2022;62:122-140.

# When to Prescribe Preventive Treatment



Continuum (Minneapolis). 2021;27:613-632.

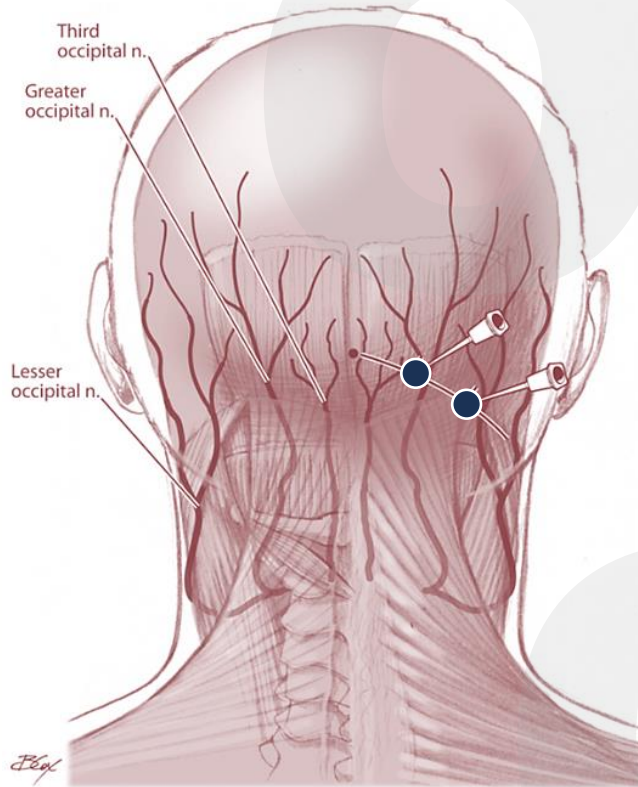
# Pearls: Preventive Treatment of Migraine

Women of child-bearing age	<b><u>AVOID</u></b> valproic acid and topiramate (teratogenic)
Patient comorbidities	Consider co-treatment (e.g., topiramate with obesity)
Multiple side effects or contraindications	Consider monoclonal antibody, gepant, or onabotulinumtoxinA
Adherence concerns	Educate about adverse effects, consider injectable options (e.g., monoclonal antibody or onabotulinumtoxinA)
Non-pharmacologic treatment preferred	Consider nutraceuticals, or neuromodulation device
Insufficient relief	If target dose achieved for an adequate duration (~8 wks), consider changing or adding a second layer of migraine prevention

Headache. 2019;59:1-18. Continuum (Minneap Minn). 2021;27:613-632.



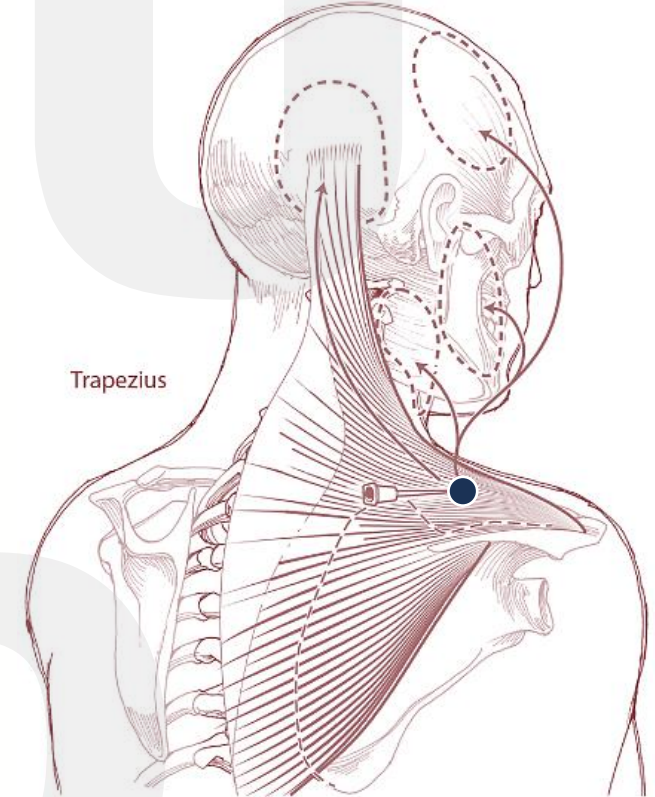
# Common Procedures for Migraine



**Nerve blocks**



**OnabotulinumtoxinA**



**Trigger point injections**

Headache. 2021:1021-1039. Headache. 2013:437-446. Headache. 2014:1441-1459

# How Do I Manage Migraine?

Non-medication  
Treatments

# Nutraceuticals

Agent	Daily Dose	Notes
Magnesium	400 mg – 600 mg	Diarrhea, nausea
Riboflavin (vitamin B2)	400 mg	Yellow urine discoloration
Coenzyme Q10	300 mg	Generally well tolerated
Feverfew	50 mg – 300 mg	Conflicting evidence
Melatonin	3 mg nightly	Conflicting evidence

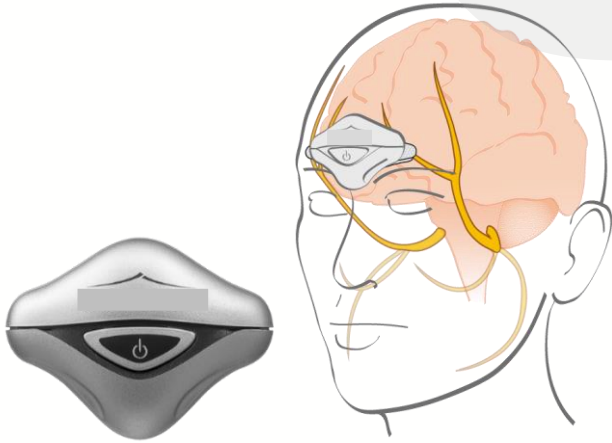
Note: Petasites (butterbur) not currently recommended due to concerns about liver toxicity

Continuum (Minneap Minn). 2021;27:613-632. Medicine (Baltimore). 2019;98:e14099.

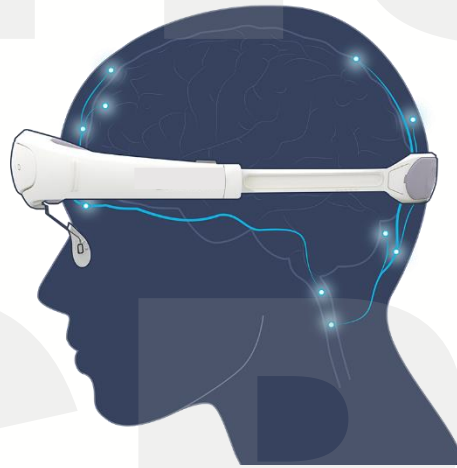
# Neuromodulation Devices

## Acute and Preventive Treatment

**Transcutaneous supraorbital nerve stimulation**



**External combined occipital and trigeminal neurostimulation**



**Single-pulse transcranial magnetic stimulation**

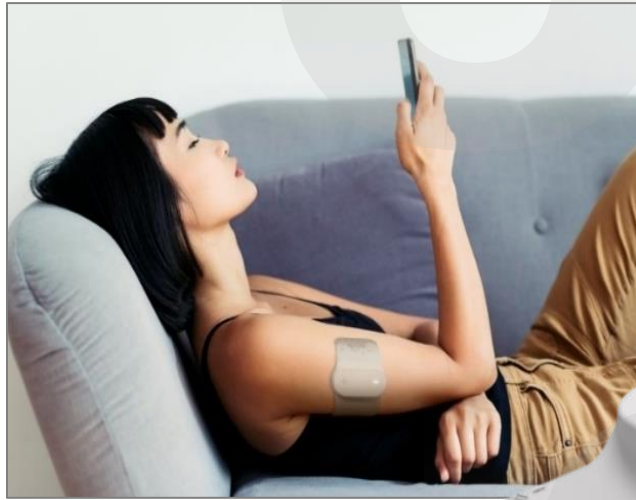


J Headache Pain. 2020;21:142; Expert Rev Med Devices. 2021;18:333-342.

# Neuromodulation Devices

## Acute and Preventive Treatment

### Remote electrical neuromodulation



### Noninvasive vagus nerve stimulation



J Headache Pain. 2016;17:91; J Headache Pain. 2020;21:142.



# Behavioral Therapies for Migraine

## Biofeedback



## CBT



## Relaxation Training

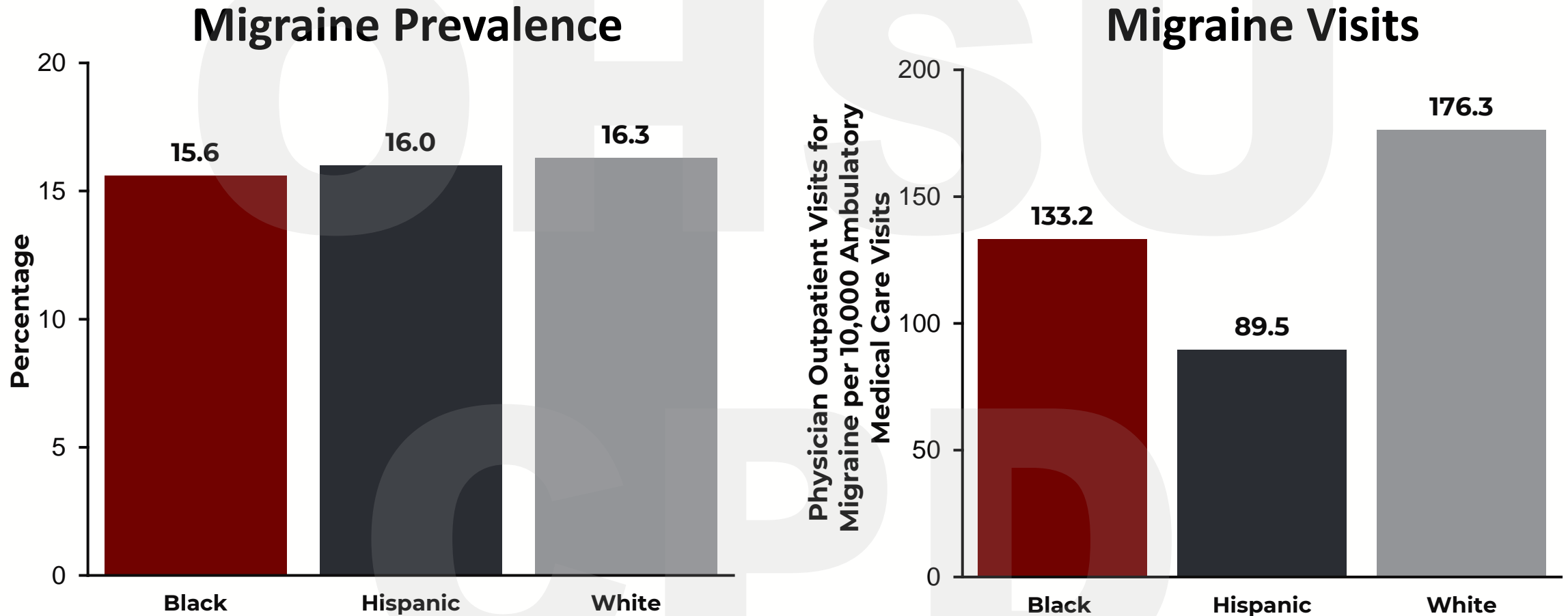


- Supported by data
- Endorsed in US Headache Consortium guidelines
- Have long-lasting benefits
- Effective at all life stages
- Can be stand alone or combined with other therapies

Headache. 2021;1021-1039. Neurology. 2000;55:754-762.

# Health Equity in Headache Medicine

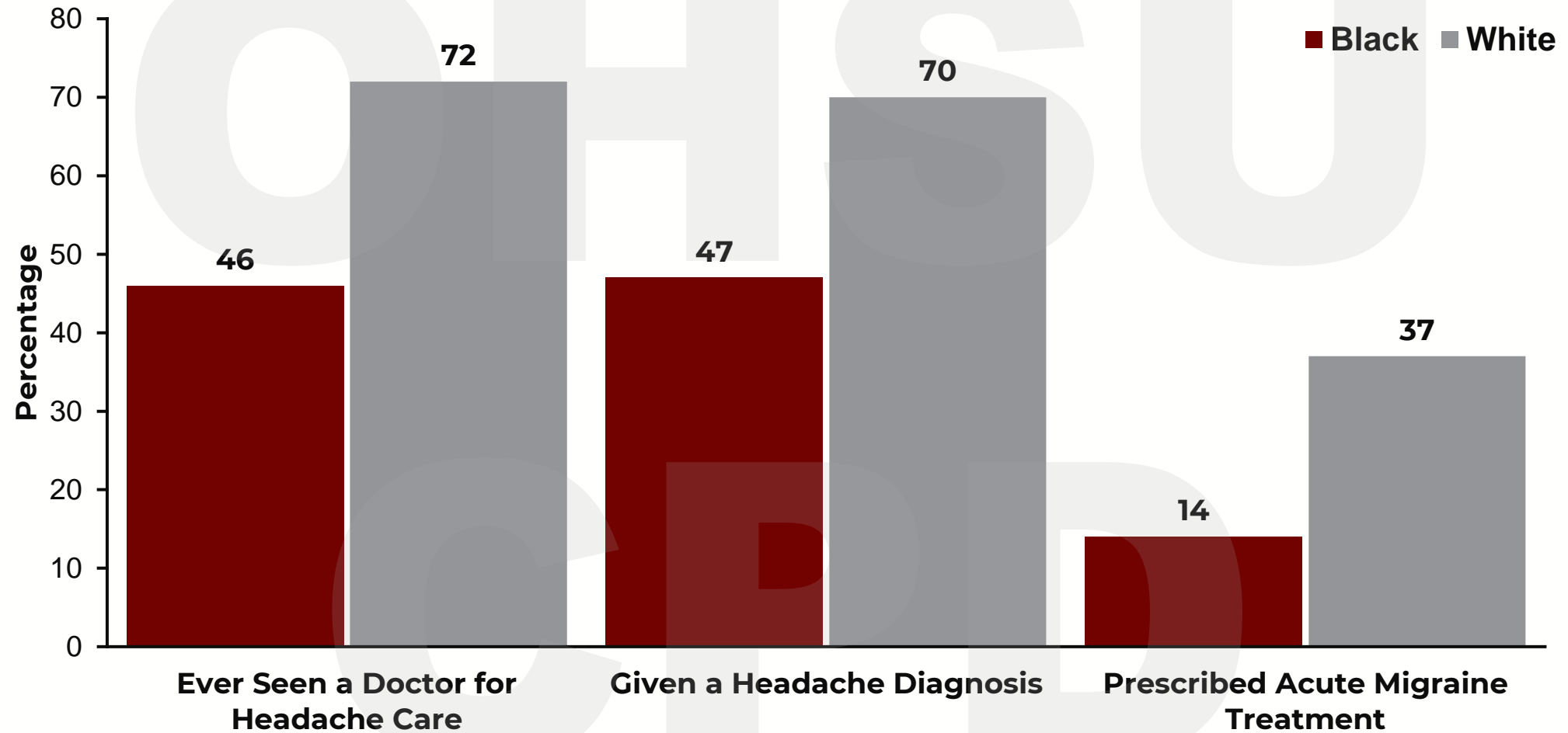
# Disparities in Migraine Visits



Loder S, et al. Headache. 2015;55:214-28.; White CS. Curr Pain Headache Rep. 2023;27:503-509; Charleston L. J Natl Med Assoc. 2021;113:223-229. Burch R, et al. Headache. 2021;61(1):60-68.

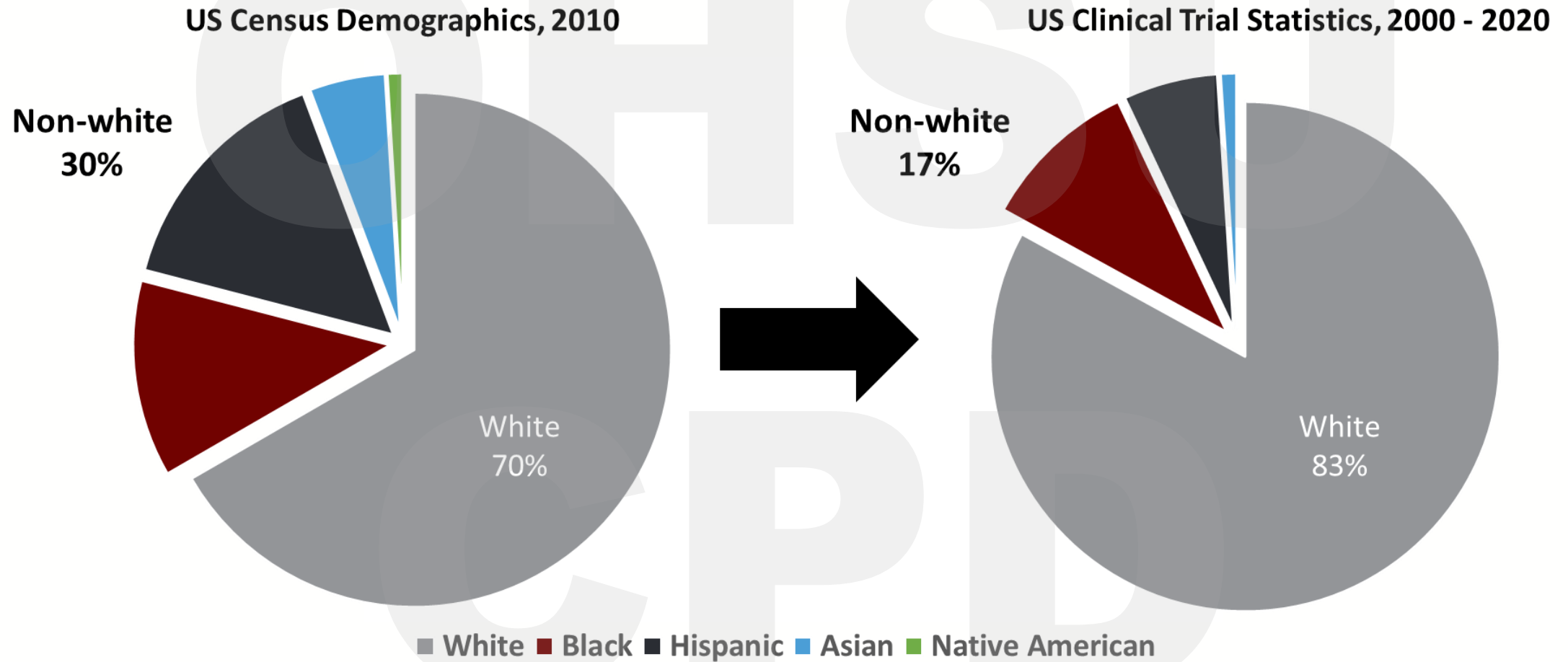


# Disparities in Migraine Management



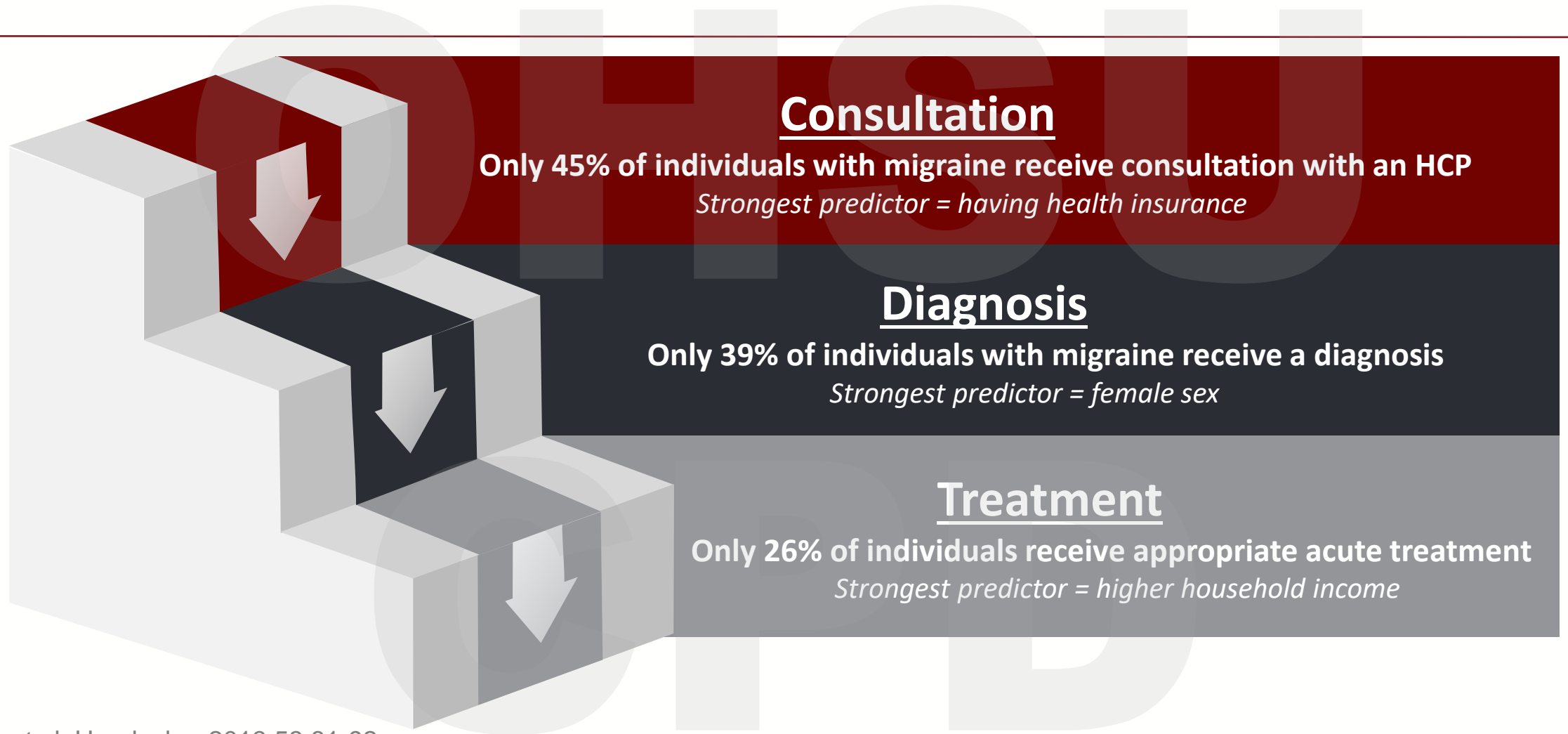
Headache. 2006;46:754-765. Kiarashi J, et al. Neurol 2021;97:280-289.

# US Clinical Trials Lack Diversity



Lancet Reg Health. Jul;11:100252. Headache. 2017;57:525-533.

# Barriers to Care



Lipton R, et al. Headache. 2013;53:81-92

# Clinical Considerations to Address Disparities

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## Increase Access to Telemedicine

Address geographic disparities and increase patient access to specialty care

## Incorporate Screening for Social Needs

Understand housing instability, language barriers, lack of insurance, income, demands on time

## Improve Training for PCPs

Increase education and access to diagnostic and treatment guidelines

Kiarashi J, et al. Neurol 2021;97:280-289.

# OHSU Answers to Frequently Asked Questions CPD

**When is imaging  
warranted?**



# Imaging in Headache Disorders



There is **no necessity** to do neuroimaging in patients with headaches **consistent with migraine** with a **normal neurologic examination** and **no atypical features** or **red flags**



Don't perform neuroimaging studies in patients with **stable headaches** that meet criteria for **migraine**

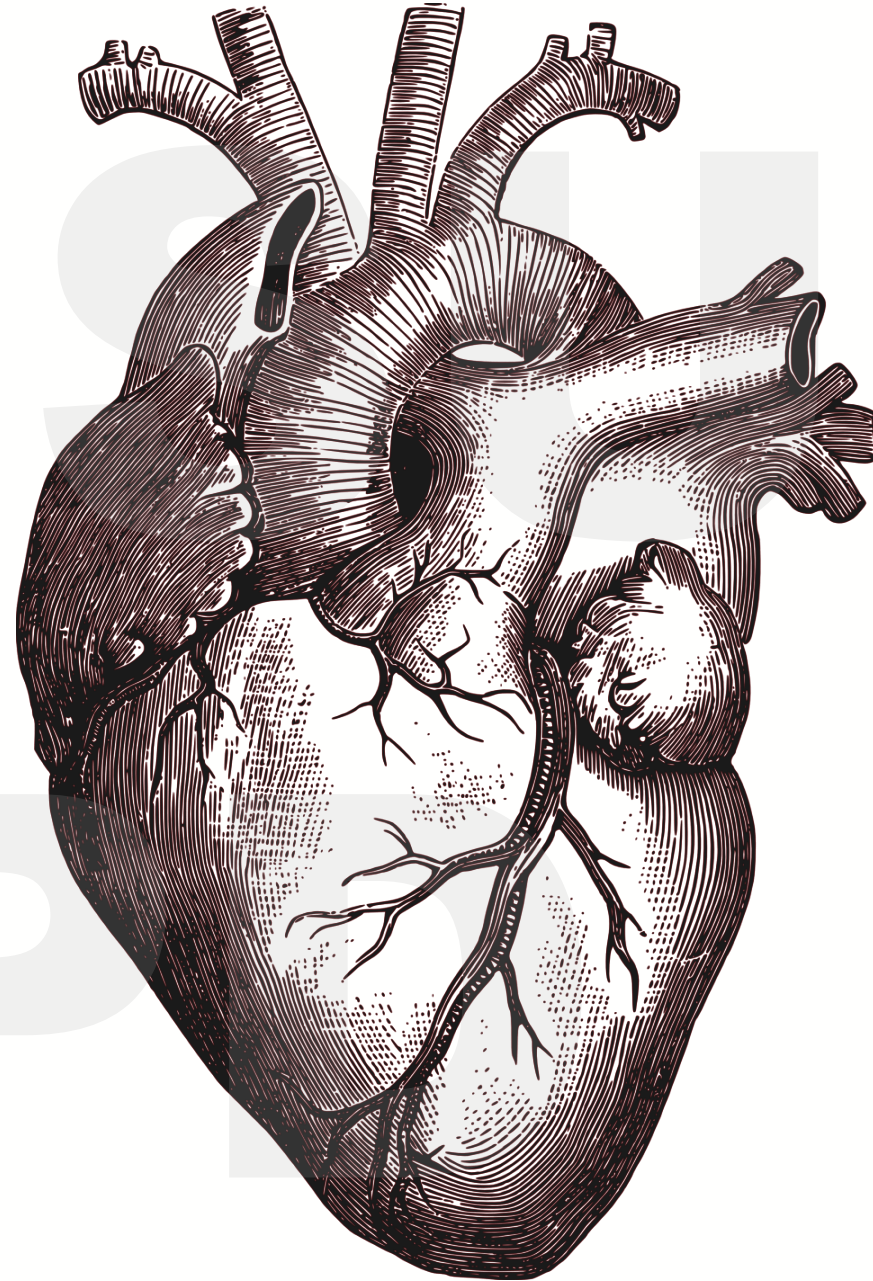
Don't perform **CT imaging** for headache when **MRI is available**, except in **emergency settings** (e.g., acute bleed)



Appropriateness Criteria® Headache — good resource for image selection in **specific clinical scenarios** (e.g., patients with known cancer)



**Do I need to  
worry about  
cardiovascular  
disease with  
triptans?**





# **Triptans and Cardiovascular Safety**

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- **Chest symptoms occurring during use of triptans generally not:**
  - Serious
  - Explained by ischemia
- **While serious cardiovascular events have occurred after use of triptans, their incidence is extremely low in:**
  - Clinical trials
  - Clinical practice
- **The cardiovascular risk-benefit profile of triptans favors their use in the absence of contraindications, such as:**
  - Coronary artery disease
  - History of stroke
  - Peripheral vascular disease
  - Uncontrolled hypertension

Headache. 2004;44(5):414-25.

# OHSU

# Migraine Myth Busters

# CPD

# Migraine Myth Busters

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**Myth 1: Migraine = severe headache**

**Myth 2: Kid's don't get migraine**

**Myth 3: Migraine head pain must be throbbing**

**Myth 4: Migraine pain is due to vasodilation**

**Myth 5: You can't diagnose migraine without aura**

# Migraine Myth Busters

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**Myth 6:** Sinusitis is a common cause of headache

**Myth 7:** Neck pain is rarely a symptom of migraine

**Myth 8:** Avoid triptans in patients with aura

**Myth 9:** Never prescribe triptans with SSRIs/SNRIs

**Myth 10:** Migraine prevention is for life

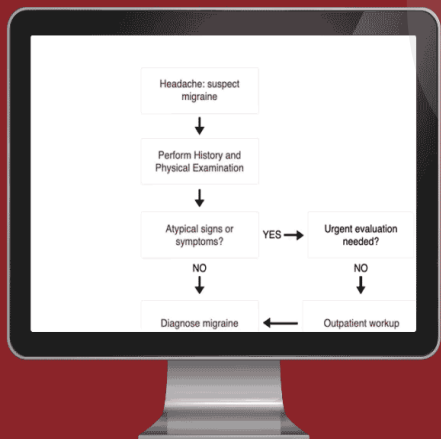
# In Summary

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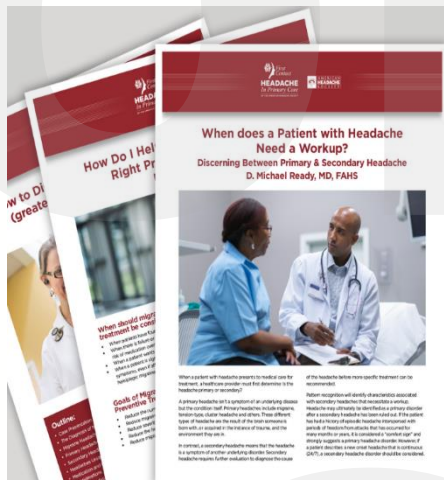
- Make the diagnosis
- Rule out secondary headaches
- Provide acute treatment
- Consider prevention

# Online Resource Library

**First Contact – Headache in Primary Care** provides free educational resources to help you identify and treat migraine and other headache disorders.



**Migraine Management Flowchart**

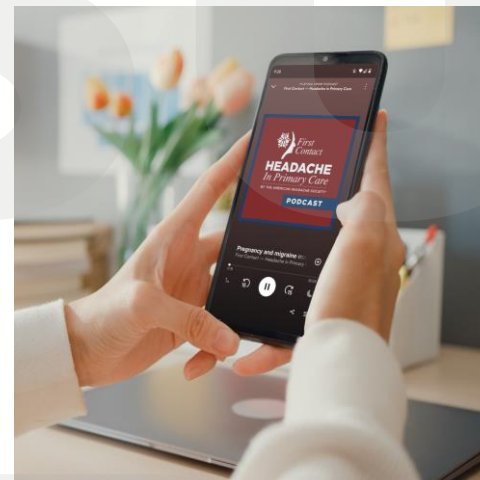


**Quick Guides**

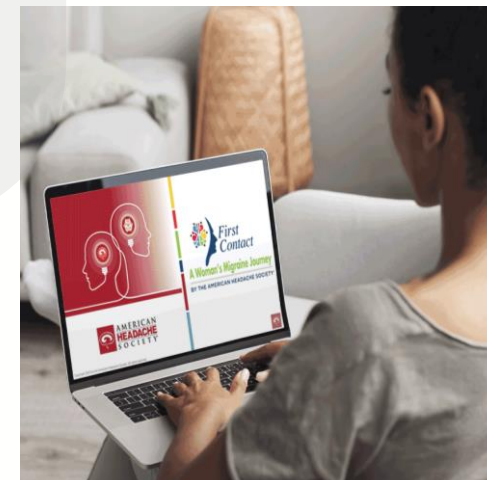


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**English and Spanish Guides**

**Patient Guide Library**



**Official Podcast**



**Online First Contact Presentations**

[americanheadachesociety.org/resources/primary-care](https://americanheadachesociety.org/resources/primary-care)

Learn more and explore our resources here:



# Authors

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# Evaluation

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