


**10:30 – 11:45 am**

**Improving Outcomes in Episodic Migraine**

**SPEAKERS**  
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**Presenter Disclosure Information**

**The following relationships exist related to this presentation:**

- ▶ D. Michael Ready, MD: No financial relationships to disclose
- ▶ Anne H. Calhoun, MD: Speakers Bureau for Depomed, Inc.; Merck & Co, Inc.; and Teva Pharmaceuticals. Researcher for DuraMed Inc.; Scion Neuro Stim, LLC; and Autonomic Technologies. Consultant for Depomed, Inc.; and Teva Pharmaceuticals.

**Off-Label/Investigational Discussion**

- ▶ In accordance with pmcME policy, faculty have been asked to disclose discussion of unlabeled or unapproved use(s) of drugs or devices during the course of their presentations.

**Drug List**

- Almotriptan (Axert)
- Diclofenac (Cambia)
- Dihydroergotamine (Migranal nasal spray, generic DHE)
- Eletriptan (Relpax)
- Ergotamine tartrate (Ergomar, generic)
- Frovatriptan (Frova)
- Naratriptan (Amerge, generic)
- Rizatriptan (Maxalt, generic)
- Sumatriptan (Imitrex, generic)
- Sumatriptan (Imitrex Nasal Spray)
- Sumatriptan (Imitrex STATdose, Sumavel DosePro, Alsuma, generic)
- Sumatriptan plus naproxen (Treximet)
- Sumatriptan iontophoretic transdermal system (Zecuity)
- Zolmitriptan (Zomig)
- Zolmitriptan (Zomig Nasal Spray)

**Improving Outcomes in Episodic Migraine**

**Learning Objectives**

- Employ key elements associated with assessment techniques to recognize primary headache syndromes in the presenting patient
- Correctly apply criteria for the clinical and differential diagnosis of episodic migraine
- Develop strategies for the optimal treatment of episodic migraine for improved quality of life in headache patients
- Summarize pharmacologic profiles, including safety and efficacy of current treatment options to develop an individualized management plan

**Epidemiology**

- Migraine affects approximately 36 million Americans
- Clear gender differences: affects more women than men
- Returning armed forces 38% females, 58% males, 20% Chronic Daily Headache
- Episodic migraine (EM); <15 days/month
  - 18% women vs 6% men
- Chronic migraine (CM); >15 days/month
  - Overall prevalence of CM: 1% to 3%
  - Three times more common in women than in men
- Prevalence peaks during mid life

Lipton RB, et al. *Neurology*. 2007;68:343-349.; Bigal ME, et al. 2008;71(8):559-566.; Buse DC, et al. *Headache*. 2013;53(8):1278-1299.; Natoli JL, et al. *Cephalgia*. 2010;30(5):599-609.

## Migraine Consequences

- Economic burden in United States: >\$18B in 2004<sup>1</sup>
- A leading cause of outpatient and emergency department (ED) visits<sup>2</sup>
  - Fourth leading cause of ED visits (adults) – 2.8% of all visits<sup>3</sup>
- Important public health problem – especially among reproductive-aged women<sup>2</sup>
- Significant effect on physical, social, and occupational functioning
- Quality of life (QoL) significantly more impaired in patients with CM vs EM<sup>4</sup>

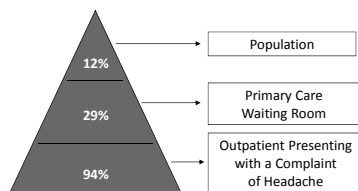
<sup>1</sup>Hawkins K, et al. *Headache*. 2008;48(4):553-563.; <sup>2</sup>Burch RC, et al. *Headache*. 2015;55(1):21-34.; <sup>3</sup>Pitts SR, et al. [www.cdc.gov/nchs/data/nhsr/nhsr007.pdf](http://www.cdc.gov/nchs/data/nhsr/nhsr007.pdf).; <sup>4</sup>Caunet L, et al. *Clin Neurosci*. 2008;62(6):738-740.

## Quality of Life Issues

- Migraine has a negative impact on overall quality of life and is associated with:
  - Decreased productivity
  - Missed time from work, school, and other activities
  - Medical comorbidities

Barnford CC, Tepper SJ. *Tech Reg Anesth Pain Manag*. 2009;13(1):20-27.; Bigal ME, et al. *Headache*. 2009;49 Suppl 1:S21-S33.; Cutrer FM. *Semin Neurol*. 2010;30(2):120-130.; Diamond S, et al. *Headache*. 2007;47(3):355-363.; Headache Classification Committee of the International Headache Society. *Cephalalgia*. 2004;24(Suppl 1):629-808.

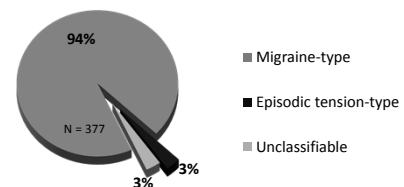
## The Prevalence of Migraine in Primary Care



Lipton RB, et al. *Neurology*. 2007;68: 343-349.; Couch J, et al. *Headache*. 2003;43:570-571.; Tepper SJ, et al. *Headache*. 2004;44:856-864.

## Migraine – The Most Common Headache in Clinical Practice

- Headache patients presenting in primary care
- IHS diagnosis based on diary review



IHS=International Headache Society  
Tepper SJ, et al. *Headache*. 2004;44:856-864.

## Role of Primary Care in Migraine

- >37% of women of reproductive age in a physician's waiting room have migraine
- People with episodic tension headache rarely seek medical advice
- Other primary headache disorders infrequently appear in a primary care office
- Chronic condition – they will need a lifetime of care, they will need a good PCP
  - Only 520 certified headache specialists in the US

PCP=primary care physician  
Couch JC, et al. *Headache*. 2003;43:570-571.

## Diagnostic Challenges in Differentiating Episodic and Chronic Migraine

## Case Study: Newly Diagnosed Migraine

*Mary is a 34-year-old Caucasian female, married mother of 2 children under the age of 10*

### Headache history

- History of frequent headaches since the birth of her children
- Has had some relief with OTC remedies
- Reports having "several" headaches each month

### Physical history

- In general good health
- Gastroesophageal reflux disease (GERD)
- Tobacco abuse
- Afebrile; vital signs within normal limits
- No current medications with the exception of OTC pain medications

OTC=over the counter  
Couch JC, et al. *Headache*. 2003;43:570-571.

### Social history

- Sleeps poorly
- Job stress; trying to work and manage kids and house responsibilities

## Case Study: Newly Diagnosed Migraine

*Mary is a 34-year-old Caucasian female, married mother of 2 children under the age of 10*

### Current complaint today

- Severe headache 1 week  
"Worse than usual"
- Pain diffuse, 10/10 intensity, maximum intensity <1 min, photo/phonophobia, nausea without emesis
- Attacks spontaneous and precipitated by cough and orgasm

Couch JC, et al. *Headache*. 2003;43:570-571.

## Take a History!

- Where is the pain?
- Dull, throbbing, shooting, burning?
- Effect of physical exertion?
- Nausea or vomiting?
- Sensitive to light, sound, odors?
- Neck pain? Muscle tension?
- Autonomic features?
- Physical changes?
- Neurologic symptoms?
- Past headache history?

## Diagnosis of Episodic Migraine (Without Aura)

- At least 5 attacks
- Headache attacks lasting 4-72 hours
- Headache with at least 2 of the following:
  - Unilateral location
  - Pulsating quality
  - Moderate-to-severe pain
  - Aggravation or avoidance of physical activity
- During headache at least one of the following:
  - Nausea and/or vomiting
  - Photophobia and phonophobia
- Not better accounted for by another ICHD-3 diagnosis

The International Classification of Headache Disorders. 3<sup>rd</sup> ed. (beta version) *Cephalalgia*. 2013;33(9):644-645.

## Diagnosis of Migraine With Aura

- A.  $\geq 2$  attacks fulfilling criteria B and C
- B.  $\geq 1$  of the following fully reversible aura symptoms:
1. Visual
  2. Sensory
  3. Speech and/or language
  4. Motor
  5. Brainstem
  6. Retinal
- C.  $\geq 2$  of the following 4 characteristics:
1.  $\geq 1$  aura symptom spreads gradually over  $\geq 5$  minutes and/or  $\geq 2$  symptoms occur in succession
  2. Each individual aura symptom lasts 5-60 minutes
  3.  $\geq 1$  aura symptom is unilateral
  4. The aura is accompanied, or followed within 60 minutes, by headache
- Not better accounted for by another ICHD-3 diagnosis, and transient ischemic attack has been excluded

The International Classification of Headache Disorders. 3<sup>rd</sup> ed. (beta version) *Cephalalgia*. 2013;33(9):645-646.

## Profiling Headache Pattern Recognition

### Primary Headaches

- Migraine
- Tension-type
- Cluster
- Miscellaneous headaches unassociated with structural lesions

### Secondary Headaches

- Post-traumatic
- Vascular disorders – CVA, aneurysm
- Nonvascular intracranial disorder
  - Neoplasm, meningitis, low or high CSF pressures
- Substances/withdrawal
- Systemic infection or metabolic d/o
- Cranial, extracerebral lesions

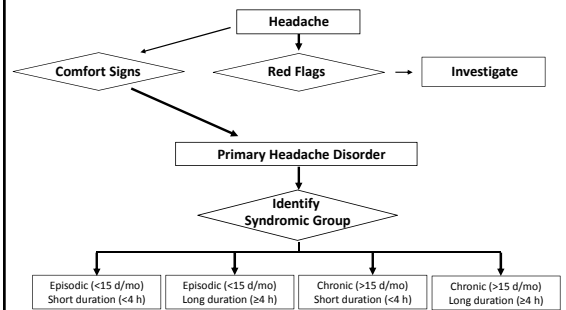
CSF=cerebral spinal fluid; CVA=cerebrovascular accident  
International Classification of Headache Disorders: 2<sup>nd</sup> ed. *Cephalalgia*. 2004;24(Suppl 1):31-32.

## Remember 2SNOOP4 Red Flags

- **SYSTEMIC SYMPTOMS** (fever, weight loss) or **SECONDARY RISK FACTORS** (HIV, systemic cancer)
- **NEUROLOGIC SYMPTOMS** or abnormal signs (confusion, impaired alertness or consciousness)
- **ONSET**: sudden, abrupt, or split-second (thunderclap)
- **OLDER**: new onset and progressive headache, especially in middle age >50 years (giant cell arteritis)
- **PREVIOUS HEADACHE HISTORY**: first headache or different (change in frequency, severity, or clinical features), **POSITIONAL**, **PAPILLEDEMA**, or **PRECIPITANTS** (cough, Valsalva)

Silberstein SD, Lipton RB. In: Silberstein, SD et al, eds. *Wolff's Headache and Other Head Pain*. 8th ed. New York: Oxford University Press;2008:315-377.; Dodick D. *N Engl J Med*. 2006;354:158-165.; Bigal ME, et al. *J Headache Pain*. 2007;8:263-272.

## Algorithmic Approach to Diagnosing Migraine



Adapted from: Lipton RB, Bigal ME. Migraine and Other Headache Disorders. Scher AI. *Epidemiology, Natural History and Risk Factors*. CRC Press. 2006:37-44.

## PIN the Diagnosis: ID™ Migraine

- Strongest predictors of migraine diagnosis
  - **Photophobia**
    - Does light bother you when you have a headache?
  - **Incapacity**
    - Has a headache limited your activities for a day or more in the last 3 months?
  - **Nausea**
    - Are you nauseated or sick to your stomach when you have a headache?
- 2 out of 3 symptoms: 93%
- 3 out of 3 symptoms: 98%

Lipton RB, et al. *Neurology*. 2003;61:375-382.

## A New Migraine Paradigm

- Migraine can become a serious chronic disease
- Chronic migraine is a complication of episodic migraine
  - Poor acute treatment outcome<sup>1</sup>
  - Medication overuse
- Treatment needs are attack-specific, not patient-specific
  - 50% of attacks do not have optimal outcomes today

<sup>1</sup>Lipton RB, et al. *Suboptimal treatment of episodic migraine may mean progression to chronic migraine*. Poster presented at the IHC 2013, June 26, 2013; Abstract LB02.

## Staging Migraine

- Developed by Lipton, Cady, Farmer, and Bigal
- First doctor/patient book
- Based on frequency not severity of headache (HA)

[www.managingmigraine.org](http://www.managingmigraine.org)

## Staging of Migraine

- |   |  |
|---|--|
| • Stage 1 – Infrequent Episodic<br>– One or less migraines/month          | • Education plus effective acute treatment   |
| • Stage 2 – Frequent Episodic<br>– 1 to 6 days of headache per month      | • Education plus effective acute treatment with back up; medications limits; preventive measures                     |
| • Stage 3 – Transforming Migraine<br>– 7 to 14 days of headache per month | • Education; preventive pharmacology; acute pharmacology with back up and rescue                                     |
| • Stage 4 – Chronic Migraine  | • Education; preventive pharmacology; judicious acute pharmacology with back up and rescue; behavioral interventions |

## Risk Factors for Progression

### Modifiable

- Attack frequency
- **Poorly treated acute HA**
- Obesity
- Snoring/OSA
- Stressful life events
- Medication overuse
- Caffeine overuse

### Not Modifiable

- Age
- Female sex
- Low education or socioeconomic status
- Genetic factors
- Head injury

OSA=obstructive sleep apnea  
Ashina S, et al. *Curr Treat Options Neurol.* 2008;10:36-43.

## Summary

- Accurate diagnosis is key
- Consider attack-based management strategies to improve patient outcomes
- Assess and prepare for the spectrum of acute treatment need
- Successful acute treatment may prevent chronification of migraine

## Improving Outcomes in Episodic Migraine

## Objectives

- Review current and novel formulations for acute migraine treatment
  - Efficacy
  - Safety
  - Side effects
- Identify common barriers to effective treatment of episodic migraine
- Devise an optimal treatment strategy based on patient's clinical presentation

- 46-year-old teacher with severe headaches 6 days a month
  - Misses 1-3 days of work/month
  - Three ER visits last year for headache
- Pain is throbbing, bilateral, with photo/phonophobia and frequent vomiting
- Precipitated by weather change, stress, and allergies
- Acute medications:
  - ASA/APAP/caffeine (~30/month)
  - Antihistamine/decongestant (~10/month)
- Dad had "sinus headaches"
- Neuro exam and lab normal

- States that she can't take triptans
  - Rizatriptan caused chest tightness and facial tingling
- Vomited after diclofenac potassium powder
- Dihydroergotamine mesylate, USP made nausea worse
- Wants an opiate for rescue so she won't have to go to ER
- Migraine-associated nausea

## Goals of Acute Migraine Treatment

1. Consistently and rapidly resolve attacks without recurrence
2. Restore the patient's ability to function
3. Minimize the use of back-up and rescue medications
4. Optimize self-care and reduce subsequent use of resources
5. Be cost-effective
6. Have minimal or no adverse events

Evidence-Based Guidelines for Migraine Headache in the Primary Care Setting: Pharmacological Management of Acute Attacks

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## Should Patients Try Non-Prescription Options First?

- With infrequent, non-disabling, mild migraines, it is reasonable to try aspirin, an NSAID, or a combination product containing acetaminophen, aspirin, and caffeine
- All are available without prescription or as generics
- Caveats:
  - Inadequate initial treatment can allow an attack to progress to central sensitization
  - Overuse of these medications can lead to medication overuse headache and promote the transformation to chronic migraine

## Ineffective Acute Treatment Can Lead to Chronic Migraine

- A longitudinal study of 5,681 episodic migraineurs (EM) found that 3.1% progressed to chronic migraine (CM) over the course of a year
- Progression was inversely related to the treatment efficacy employed
  - 1.9% of the maximum treatment efficacy group
  - 2.7% of the moderate treatment efficacy group
  - 4.4% of the poor treatment efficacy group
  - 6.8% of the very poor treatment efficacy group
- Improving acute treatment outcomes might prevent new-onset CM

Lipton RB, et al. *Neurology*. 2015;84(7):688-695.

## FDA-Approved Acute Abortive Treatments for Migraine

- Dihydroergotamine, ergotamine tartrate
- Triptans
  - Almotriptan
  - Eletriptan
  - Frovatriptan
  - Naratriptan
  - Rizatriptan
  - Sumatriptan [oral, nasal spray, injectable, transcutaneous patch]
  - Zolmitriptan [oral and nasal spray]
- Diclofenac oral solution

Marmura MJ, et al. *Headache*. 2015;55(1):3-20.

## Formulation of Triptan: Speed of Onset

- Injectable
  - Subcutaneous administration and absorption
- Nasal spray
  - Absorption via nasopharyngeal mucosa
- Suppository
- Oral fast-onset
- Transdermal patch
- Oral slow-onset triptan



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## Persistent Frequent Nausea Can Lead to Chronic Migraine

- Migraineurs with persistent frequent nausea or no/low frequency nausea were identified from the AMPP study
- There were 3,182 migraineurs with 3 years' data of headache symptoms and nausea frequency
  - Frequent nausea was found in 43.7% of respondents, and 3.4% progressed to CM
  - No/low frequency nausea was seen in 27.6% of the EM group, and 1.5% progressed to CM
- Persistent frequent nausea doubled the risk of progression to CM after adjusting for socio-demographic variables

Reed ML, et al. *Headache*. 2015;55(1):76-87.

## Goals of Acute Migraine Treatment

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Evidence-Based Guidelines for Migraine Headache in the Primary Care Setting: Pharmacological Management of Acute Attacks

## Opioids Are Associated With Increased Migraine Disability

- Data from the AMPP study were used to categorize 5,796 migraineurs into 4 groups based on reported opioid use:
  - Nonusers (70.3%)
  - Previous users (13.8%)
  - Current opioid users (15.9%)
    - 16.6% met DSM4 criteria for probable dependence
    - 83.4% did not
- Both headache-related disability and headache frequency increased across groups (from non-users to current)
- The prevalence of depression and anxiety was highest among current users with probable dependence
- Headache-related emergency department/urgent care, primary care, and specialty care visits were higher for all opioid-use groups compared to nonusers

Buse DC, et al. *Headache*. 2012;52(1):18-36.

## Goals of Acute Migraine Treatment

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Evidence-Based Guidelines for Migraine Headache in the Primary Care Setting: Pharmacological Management of Acute Attacks

## Trigger Management

- Identifying common triggers: emotional stress, sleep disturbances, dietary factors
  - Migraine with aura: common triggers are sleep, stress
  - Migraine without aura: common triggers are environmental factors
- Research suggest "learning to cope" with triggers (graduated exposure to selected triggers to promote desensitization) may reduce migraines and medication consumption

Mollaoglu M. *J Health Psychol*. 2013;18(7):984-994.; Martin PR, et al. *Behav Res Ther*. 2014;61:1-11.

## Inadequate Acute Treatment Can Result in ER Visits

- Migraine is the 6th leading cause of ER visits in the US
  - Up to 4% of all ER visits are for headache
  - About 2.8 million ER visits each year
- Migraineurs are 4x more likely to visit the ER than non-migraineurs
  - 10x more likely if they use opioids
  - 25x more likely if they are opioid-dependent
- Estimated annual US healthcare costs (2010) for migraine:
  - Outpatient visits: \$3.2 billion
  - ER visits: \$700 million
  - Inpatient hospitalizations: \$375 million

Buse DC, et al. *Headache*. 2012;52:18-36.; Insinga RP, et al. *Cephalalgia*. 2011;31:1570-1575.

## Goals of Acute Migraine Treatment

1. Consistently and rapidly resolve attacks without recurrence
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Evidence-Based Guidelines for Migraine Headache in the Primary Care Setting: Pharmacological Management of Acute Attacks

## Cost of Acute Migraine Treatment

- Inadequate treatment
  - ER visits
  - Lost work
- Non-generic formulations
- Generic triptans and ergotamines
- OTCs



## Goals of Acute Migraine Treatment

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Evidence-Based Guidelines for Migraine Headache in the Primary Care Setting: Pharmacological Management of Acute Attacks

## Oral Therapies

- Nontriptan
  - NSAIDs
    - Diclofenac potassium solution\*
  - Combinations
    - Acetaminophen/aspirin/caffeine
    - Analgesics
  - Neuroleptics
- Triptans
- Ergotamines
- Opioids
- Corticosteroids

\* FDA approved  
Matchar DB, et al. Evidence-based guidelines for migraine headache. AAN. US Headache Consortium. 2000:1-58.

## Triptans

- Sumatriptan\*
  - Oral – 25, 50, 100 mg
  - Nasal – 5, 20 mg
  - Auto-injector – 4 or 6 mg
  - Needle-free injector – 4 or 6 mg
  - Iontophoretic patch 6.5 mg
- Rizatriptan\*
  - Oral – 5, 10 mg
  - ODT – 5, 10 mg
- Almotriptan
  - Oral – 6.25, 12.5 mg
- Frovatriptan
  - Oral – 2.5 mg
- Eletriptan
  - Oral – 20, 40 mg
- Sumatriptan/naproxen
  - Oral – 85 mg/500 mg
- Naratriptan\*
  - Oral – 1, 2.5 mg

\*Available as generic  
ODT=orally disintegrating tablet  
Needle-free 4 mg and Iontophoretic patch are newest additions to triptan class



## Adverse Events With Triptans

- Common AEs of triptans
  - Tingling/numbness/warmth/pressure/tightness of scalp, face, head, chest or upper body
  - Dizziness/lightheadedness/drowsiness
  - Nausea or vomiting
- Specific AEs with nasal spray
  - Burning, pain, or soreness in the nose
  - Change in the sense of taste
- Specific AEs with injection
  - Burning, pain, or redness at injection site
  - Bleeding or bruising at injection site
- Specific AEs with patch
  - Burning, pain, itching, or redness at the patch site

See Package Insert on specific drugs for complete descriptions of adverse events

## Adverse Events With DHE

- Serious cardiac events, including fatalities, have occurred following injection but are extremely rare
- **More common AEs include**
  - Paresthesia
  - Hypertension
  - Dizziness
  - Anxiety
  - Dyspnea
  - Muscle cramps
  - Headache
  - Flushing
  - Diarrhea
  - Rash
  - Increased sweating

DHE= Dihydroergotamine  
See Package Insert on specific drugs for complete descriptions of adverse events

## Adverse Events With Diclofenac Potassium Oral Solution

- In clinical trials, the most common adverse events were nausea (3%) and dizziness (1%)
- Efficacy is similar to triptans with a low rate of adverse events
- Efficacy may be significantly reduced if not taken on an empty stomach

CAMBIA [package insert]. Newark, CA: Depomed Inc; 2010.

## Novel Delivery Formulations for Acute Treatment

## Transdermal Drug Delivery

- Sumatriptan iontophoretic transdermal system
- Single-use, battery-powered patch using electrical potential to advance medication through the skin
  - Bypasses stomach
  - Automatically powers off when dosing completed
- Appropriate candidates
  - Patients with significant AEs from triptans
    - Flushing, fatigue, gastrointestinal effects
    - AEs associated with vasoconstrictive properties of triptans
  - Patients with significant nausea who are unable to swallow medications
  - Patients with difficulty absorbing oral medications

AE=adverse event  
Vikelis M, et al. *Neuropsychiatr Dis Treat.* 2012;8:429-434.

## Intranasal/Inhaled Delivery

- Nasal anatomy
- Current intranasal formulations: sumatriptan, zolmitriptan, dihydroergotamine (DHE) (limited to acute management)
  - Intrinsic intranasal bioavailability: sumatriptan (max of 10%),<sup>1</sup> zolmitriptan (29%)<sup>2</sup>
- Formulations currently under investigation
  - Inhaled preparation DHE mesylate – rejected by FDA in June 2014: ongoing concerns regarding “specifications around content uniformity and the improved canister filling process and on standards for device actuation.” Approval delayed as of September 2015
  - AVP-85- sumatriptan powder (22 mg) delivered intranasal using novel breath powered delivery technology

<sup>1</sup>Fuseau E, et al. *Clin Pharmacokinet.* 2004;41(11):801-811. <sup>2</sup>Kagedal M, et al. *Am J Drug Delivery.* 2005;3(2):133-140.

## Value of Different Triptan Formulations

- Oral
  - Convenience, portability
  - Variety of molecules (7) to choose from
- Parenteral (effective with nausea and vomiting)
  - Injection (needle or air-injection systems)
    - Fast-onset
  - Nasal
    - Avoids injection pain
    - Fast-onset
  - Patch
    - Avoids injection pain
    - Reduced triptan sensations
    - Bypasses the GI track

## Preventive Nonpharmacologic Interventions

- Behavioral therapies
  - Sleep hygiene
  - Relaxation, biofeedback, cognitive behavioral therapy (CBT) reduce risk of transforming EM to CM
- Dietary considerations/GI issues
  - Food triggers, specific food allergies, obesity, and comorbid GI illness all appear to influence clinical expression of migraine. No clear direct evidence
  - Fasting, skipping meals
- Patient empowerment and education
- Exercise
  - Recent good quality studies provide evidence supporting effectiveness of exercise in prophylaxis of migraine
  - Monitor intensity, frequency, duration to optimize outcomes
  - Isometric neck exercise helpful if migraine + neck pain

Finkel AG, et al. *Curr Pain Headache Rep.* 2013;17(11):373.; Pistola F, et al. *Curr Pain Headache Rep.* 2013;17(1):304.; Mausek A. *Continuum (Minneapolis Minn).* 2012;18(4):796-806.; Koseoglu E, et al. *J Sports Med Phys Fitness.* 2014 Jun 12.

- What are good options for our patient?

***But first – is she strictly episodic?***

- She reports 6 severe migraines a month with missed work
- Are the other days perfect or just “not bad”?

## Are Our “Episodic” Migraineurs Strictly Episodic?

- Published studies of triptans have shown somewhat disappointing 2-hour pain-free and 2- to 24-hour sustained pain-free rates
- A major study design flaw may have contributed
  - Many subjects are not truly episodic—they discount days with mild headache and ignore days with migraine-related neck pain
- Subjects with 2-7 migraine attacks monthly and <15 headache **and/or neck pain days** per month were instructed to treat ≤30 minutes following onset of mild headache *or neck discomfort* on the first day of discomfort

Calhoun AH, Ford S. *Postgrad Med.* 2014;126:86-90.

## Back To Our Case Study

- What are good options for our patient?
- Aggressive prevention of her specific triggers (allergies)
- Migraine preventive medication to reduce frequency
- Effective acute therapy
- Rescue option

- States that she can't take triptans
  - Rizatriptan caused chest tightness and facial tingling
- Vomited after diclofenac potassium powder
- Dihydroergotamine mesylate, USP made nausea worse
- Wants an opiate for rescue so she won't have to go to ER
- Migraine-associated nausea

## Summary

- Current FDA-approved acute migraine therapies are all efficacious, but individual responses may differ
- For best results, patients should treat episodic attacks early in the mild pain stage with appropriate acute therapy
  - Side effects with the treatment must be absent/minimal if patients are to treat early in the mild stage
  - Be sure they're truly episodic
- Parenteral formulations may be included for attacks that are accompanied by nausea, have rapid onset, or awaken the patient from sleep