Improving Long-Term Headache Control for ED patients with Chronic Headache

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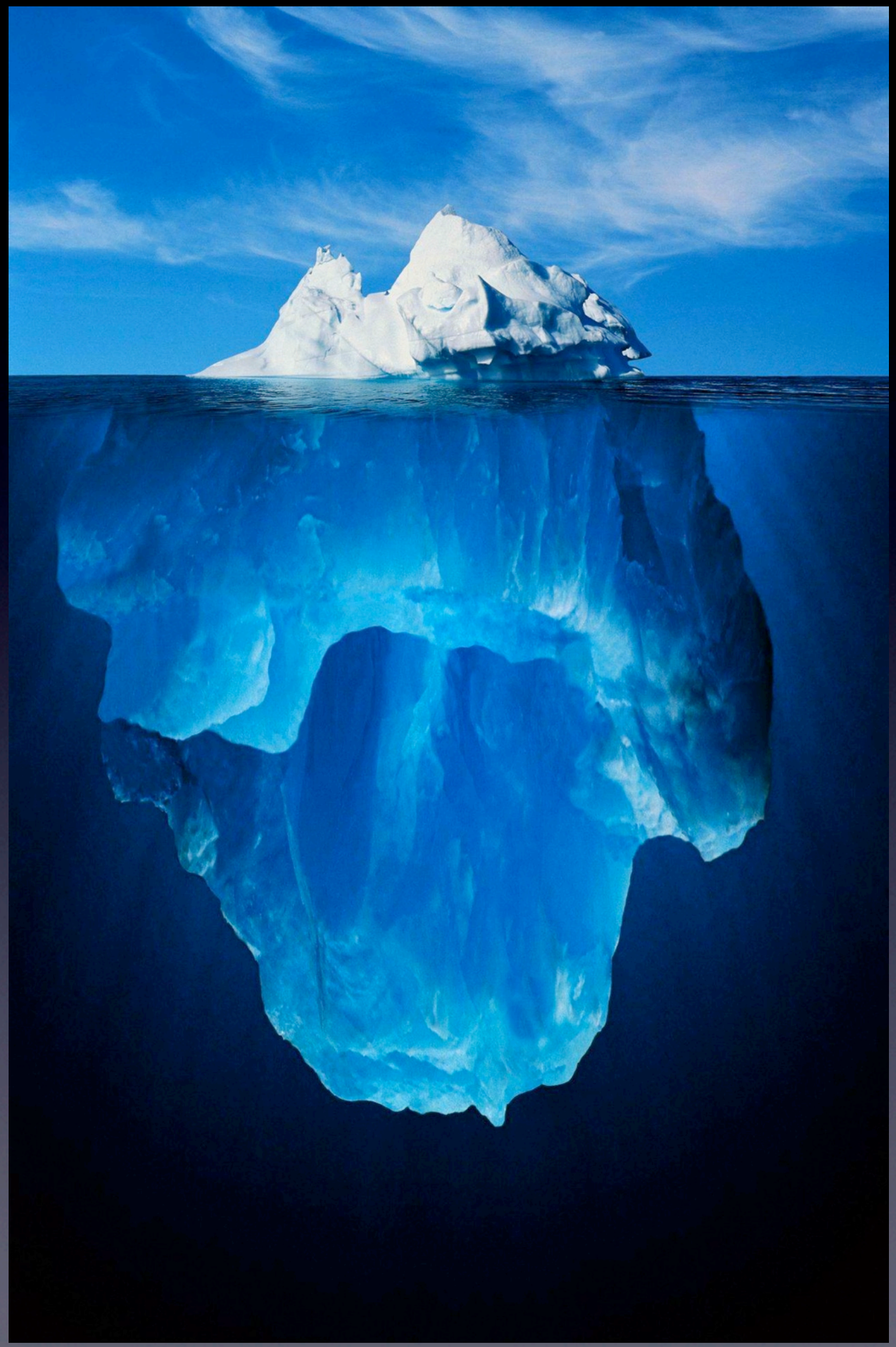

SPECIAL ARTICLE

AMERICAN ACADEMY OF NEUROLOGY.

Evidence-based guideline update: Pharmacologic treatment for episodic migraine prevention in adults

Report of the Quality Standards Subcommittee of the American Academy of Neurology and the American Headache Society

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Level A: Medications with established efficacy (≥2 Class I trials)	Level B: Medications are probably effective (1 Class I or 2 Class II studies)	Level C: Medications are possibly effective (1 Class II study)
Antiepileptic drugs	Antidepressants/ SSRI/SSNRI/TCA	ACE inhibitors
Divalproex sodium	Amitriptyline	Lisinopril
Sodium valproate	Venlafaxine	Angiotensin receptor blockers
Topiramate	β-Blockers	Candesartan
β-Blockers	Atenolol[a]	α-Agonists
Metoprolol	Nadolol[a]	Clonidine[a]
Propranolol	Triptans (MRM[b])	Guanfacine[a]
Timolol[a]	Naratriptan[b]	Antiepileptic drugs
Triptans (MRM[b])	Zolmitriptan[b]	Carbamazepine[a]
Frovatriptan[b]		β-Blockers
		Nebivolol
		Pindolol[a]
		Antihistamines
		Cyproheptadine

Topiramate for the prophylaxis of episodic migraine in adults (Review)

Linde M, Mulleners WM, Chronicle EP, McCrory DC

Study or subgroup	Topiramate n/N	Placebo n/N	Odds Ratio M-H,Random,95% CI	Weight	Odds Ratio M-H,Random,95% CI
Brandes 2004	59/120	26/114		16.9 %	3.27 [1.86, 5.76]
de Tommaso 2007	8/13	0/11		1.8 %	35.55 [1.72, 734.05]
Diener 2004	51/139	31/143		17.6 %	2.09 [1.24, 3.54]
Edwards 2000	7/15	1/15		3.0 %	12.25 [1.27, 118.36]
Gupta 2007	35/56	17/57		13.1 %	3.92 [1.79, 8.59]
Mei 2004	22/35	8/37		9.7 %	6.13 [2.17, 17.37]
Silberstein 2004	68/125	26/115		17.0 %	4.08 [2.33, 7.16]
Silberstein 2006	55/138	25/73		16.4 %	1.27 [0.70, 2.30]
Storey 2001	5/19	2/21		4.5 %	3.39 [0.57, 20.10]
Total (95% CI)	**660**	**586**		**100.0 %**	**3.18 [2.10, 4.82]**

Total events: 310 (Topiramate), 136 (Placebo)

Choosing Wisely®

An initiative of the ABIM Foundation

American Academy of Neurology

Five Things Physicians and Patients Should Question

3

Don't use opioid or butalbital treatment for migraine except as a last resort.

Opioid and butalbital treatment for migraine should be avoided because more effective, migraine-specific treatments are available. Frequent use of opioid and butalbital treatment can worsen headaches. Opioids should be reserved for those with medical conditions precluding the use of migraine-specific treatments or for those who fail these treatments.

Why Focus on the ED?

- Severity Selection
- Only place to target the population in greatest need?
- Increased salience of prevention message
- It hasn’t been focused on before

Research Questions

1. Will headache prophylaxis, provided to the ED headache population at ED discharge effectively reducing headache frequency?
2. Will headache self-management programs, initiated in the ED, effectively reduce headache frequency?
3. Can ED-focused quality improvement initiatives change prescribing practices?

Design

- Individual Level Factorial RCT — prophylaxis initiation, self-management and visit navigation
- Facility Level — cluster randomized trial

Patient Selection

- **Inclusion**
  - Headache primary ED reason for visit
  - Prior ED visit for headache within prior 3 months OR MIDAS > 5
  - Ability to provide informed consent
- **Exclusion**
  - Age < 18
  - Prophylaxis contraindication
  - Red Flags/Abnormal neurological examination
  - Pregnancy

Design

	Prophylaxis/ Topiramate	Placebo
Self Management + Visit Navigation	25%	12.5%
Self Management	12.5%	12.5%
Visit Navigation	12.5%	12.5%
Usual Care	12.5%	0%

Quality Improvement

- Facilities randomized to a multi-faceted quality improvement initiative vs. No intervention
  - Practitioner education on medication overuse headache
  - Development of site-specific headache discharge pathways
  - Monthly feedback to practitioners on compliance with pathways

Outcomes

- **Primary Outcome**: Change in MIDAS score from enrollment to 180 days
- **Secondary Outcomes**: ED Visits in 180 days, PCP visits, Active narcotic prescription? Active prophylactic prescription?
- **Safety**: Medication-related adverse effects

Innovation

- Central Telemedicine Randomization
- Broad-based outcome ascertainment platform
- Potential for novel funding sources

The Migraine Disability Assessment Test

The MIDAS (Migraine Disability Assessment) questionnaire was put together to help you measure the impact your headaches have on your life. The information on this questionnaire is also helpful for your primary care provider to determine the level of pain and disability caused by your headaches and to find the best treatment for you.

INSTRUCTIONS
Please answer the following questions about ALL of the headaches you have had over the last 3 months. Select your answer in the box next to each question. Select zero if you did not have the activity in the last 3 months.

_____ 1. On how many days in the last 3 months did you miss work or school because of your headaches?

_____ 2. How many days in the last 3 months was your productivity at work or school reduced by half or more because of your headaches? (Do not include days you counted in question 1 where you missed work or school.)

_____ 3. On how many days in the last 3 months did you not do household work (such as housework, home repairs and maintenance, shopping, caring for children and relatives) because of your headaches?

_____ 4. How many days in the last 3 months was your productivity in household work reduced by half of more because of your headaches? (Do not include days you counted in question 3 where you did not do household work.)

_____ 5. On how many days in the last 3 months did you miss family, social or leisure activities because of your headaches?

_____ Total (Questions 1-5)

_____ A. On how many days in the last 3 months did you have a headache? (If a headache lasted more than 1 day, count each day.)

_____ B. On a scale of 0 - 10, on average how painful were these headaches? (where 0 = no pain at all, and 10 = pain as bad as it can be.)

Scoring: *After you have filled out this questionnaire, add the total number of days from questions 1-5 (ignore A and B)*

MIDAS Grade	Definition	MIDAS Score
I	Little or no disability	0-5
II	Mild disability	6-10
III	Moderate disability	11-20
IV	Severe disability	21+

Please give the completed form to your clinician.

This survey was developed by Richard B. Lipton, MD, Professor of Neurology, Albert Einstein College of Medicine, New York, NY, and Walter F. Stewart, MPH, PhD, Associate Professor of Epidemiology, Johns Hopkins University, Baltimore, MD.