"Doctor , I have a very bad headache."

APPROACH TO HEADACHE DISORDERS IN PRIMARY CARE SETTING

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16 June 2025

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PATIENTS. AT THE HEART OF ALL WE DO.®

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OUTLINES

1. ICHD-3 classification of headache disorders
2. History taking and red flags for headache

3. Migraine:

- Diagnostic criteria
- Phases of migraine, triggering factors
- Current treatment paradigm
- Initiation, titration & escalation of migraine treatment
- Prevent progression to chronic migraine

4. Medication Overuse Headache (MOH)
5. When to refer to neurologist
6. Online resources available for migraine management

- Mdm X, 28yo, no significant PMH, BMI of 30.
- C/o: frequent bilateral throbbing headache, associated with nausea, photophobia and tearing for 6 mths.
- Possible triggering factors: sleep deprivation, menses.
- She shared that occasionally the headache is associated with flashes of light.
- Neurological examination was unremarkable.

Doctor, my headache is getting more frequent now and it is affecting my life!

ICHD-3 CLASSIFICATION

PRIMARY HEADACHES	SECONDARY HEADACHES	FACIAL PAIN AND NEUROPATHIES
1. Migraine 2. Tension-type headache (TTH) 3. Trigeminal autonomic cephalalgias (TACs) 4. Other primary headache disorders	1. Headache attributed to: a) Trauma to the head b) Cranial / cervical vascular c) Substance/ its withdrawal d) Infection e) Disorder of homeostasis f) Psychiatric disorder 2. Headache or facial pain attributed to disorder of the cranium, eyes, ears, nose, sinuses, teeth, mouth or other facial or cervical structure	1. Painful lesions of the cranial nerves & other facial pain 2. Other headache disorders

IS THAT ALL WE ASK THE PATIENTS?

- **‘Usual/ old’ headache:** establish if they have underlying primary headache syndrome
- **Current headache:** is it consistent with their ‘old headache’?
- **Provoking factors**
- **Abortive meds:** response to abortive, does the patient take it correctly? risk of medication overuse?
- **Preventive meds:** compliance, response to med
- **Red flags**
- **Comorbidities/ risk factors** for progression eg. for chronic migraine
- **Impact/ burden** of headache

RED FLAGS: THE ‘SNNOOP10’ ALGORITHM

S	Systemic symptoms including fever, night sweats, loss of appetite/ weight etc	
N	Neoplasm in history	
N	Neurologic deficit (including decreased consciousness)	
O	Onset of headache: sudden or abrupt (thunderclap headache)	
O	Older age (>50)	
P	Pattern change or recent onset of new headache	Pattern
	Progressive headache and atypical presentation	
10	Positional headache	“Raised ICP” or focal pathology
	Precipitated by sneezing, coughing (Valsalva) or exercise	
	Papilloedema	
	Painful eye with autonomic features	
	Pregnancy or puerperium	Background
	Post-traumatic onset of headache	
	Pathology of the immune system such as HIV infection and/or	
	Painkiller overuse or new drug at onset of headache	

*1. Dodick DW. *Adv Stud Med.* 2003;3(6C):S550–S555; 2. Do TP, *et al. Neurology*. 2019;92(3):134–144.

WHAT COULD BE THE DIAGNOSIS?

A. Tension-type headache
B. Migraine without aura
C. Trigeminal autonomic cephalalgia
D. Need to rule out secondary headache

ICHD-3 DIAGNOSTIC CRITERIA FOR MIGRAINE

Migraine

(A) At least five attacks fulfilling criteria B–D

(B) Headache attacks lasting 4–72 h (when untreated or unsuccessfully treated)

(C) Headache has at least two of the following four characteristics:

1. Unilateral location
2. Pulsating quality
3. Moderate or severe pain intensity
4. Aggravation by or causing avoidance of routine physical activity (e.g., walking or climbing stairs)

(D) During headache at least one of the following:

1. Nausea and/or vomiting
2. Photophobia and phonophobia

(E) Not better accounted for by another diagnosis

Chronic migraine

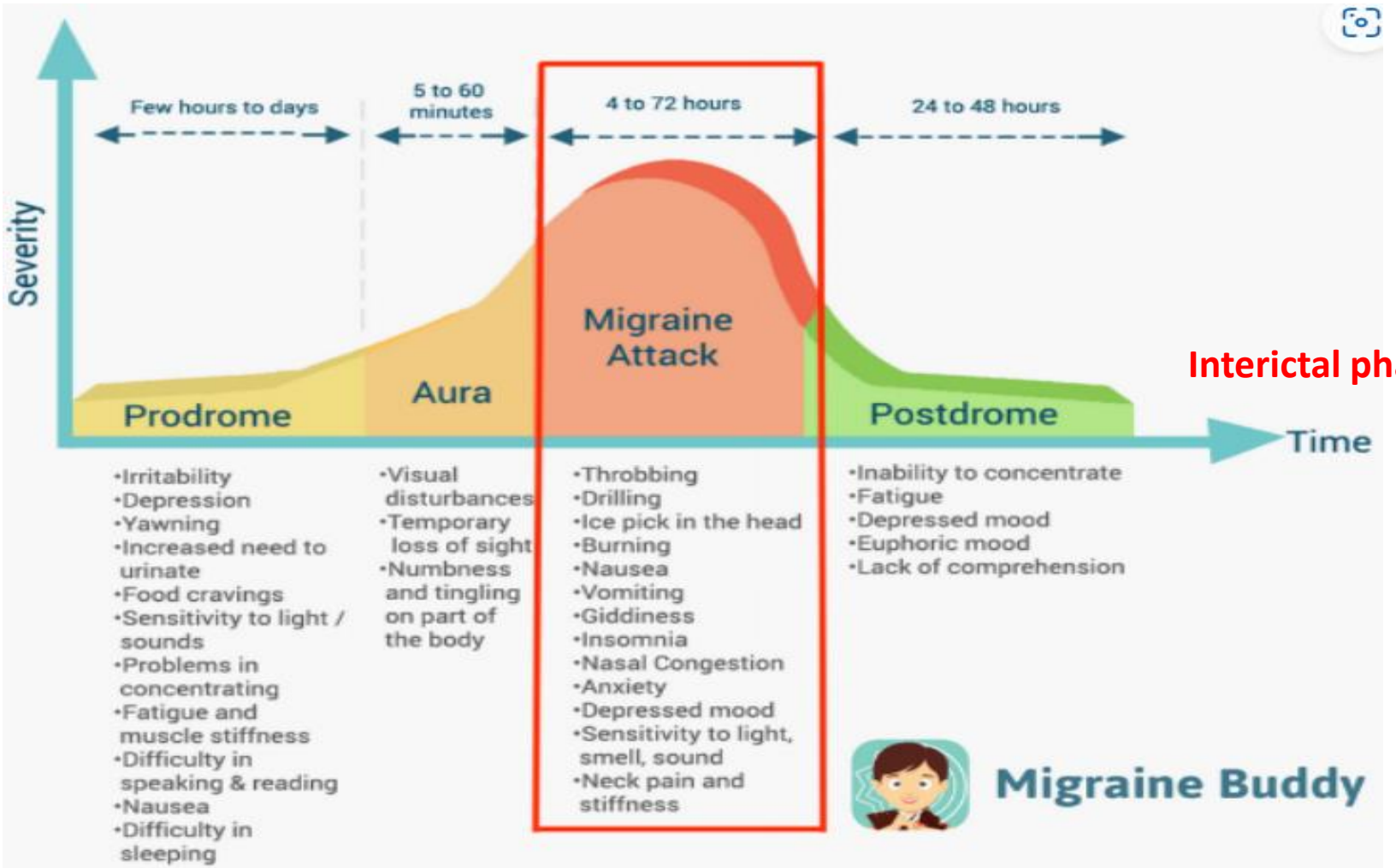
(A) Migraine-like or tension-type-like headache on ≥15 days/month for >3 months that fulfill criteria B and C

(B) Occurring in a patient who has had at least five attacks fulfilling criteria B–D for migraine without aura and/or criteria B and C for migraine with aura

(C) On ≥8 days/month for >3 months, fulfilling any of the following:

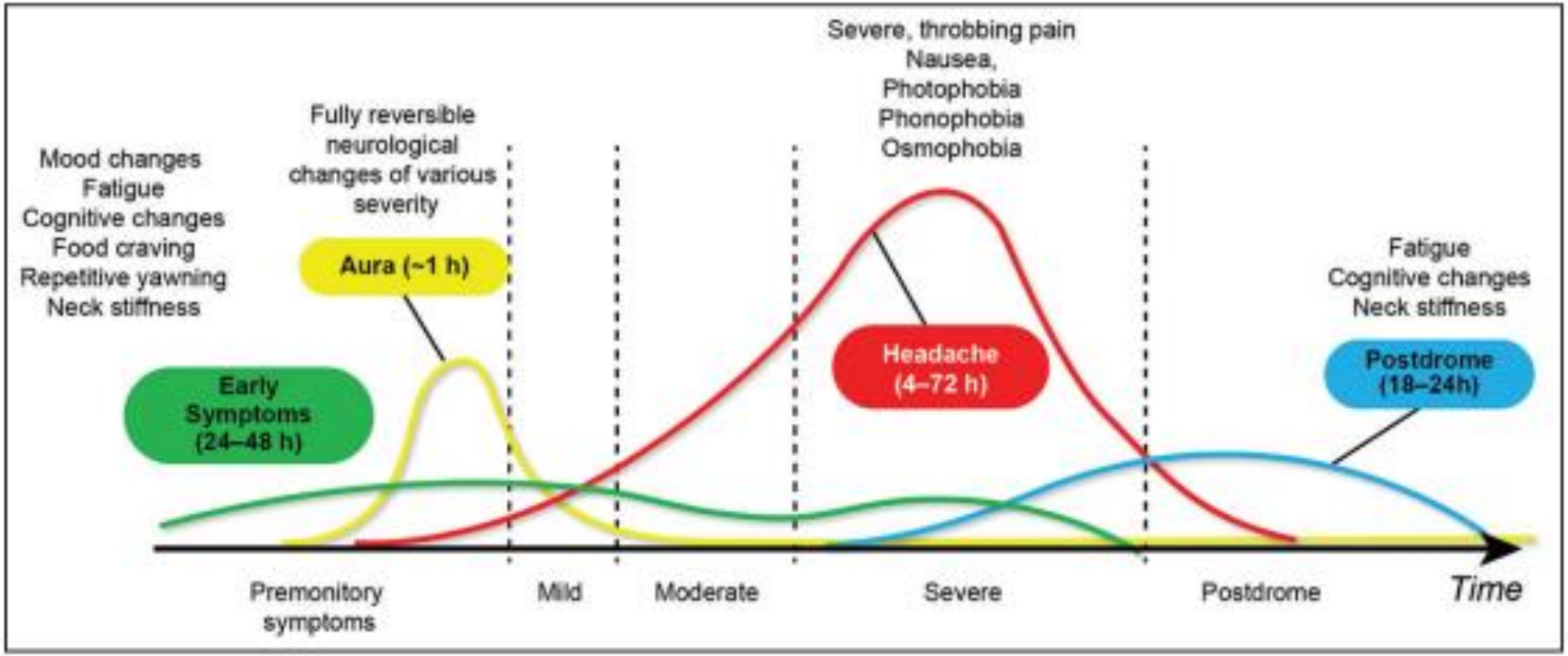
1. Criteria C and D for migraine without aura
2. Criteria B and C for migraine with aura
3. Believed by the patient to be migraine at onset and relieved by a triptan or ergot derivative

(D) Not better accounted for by another diagnosis



Interictal phase

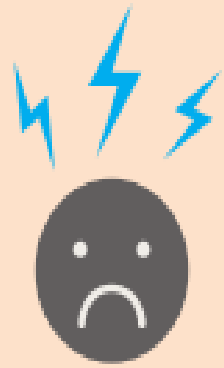
PHASES OF MIGRAINE



Zhao, Yi Jing, et al. *Approach to Headache Disorders and the Management of Migraine: Consensus Guidelines from the Headache Society of Singapore, First Edition (2023). Singapore Medical Journal*,.

Preventing migraines

Every person is unique, but there are some common factors that can trigger a migraine. These include:

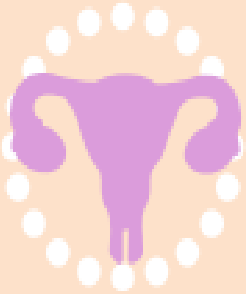


Stress

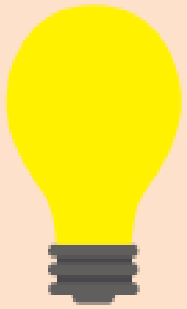
Sleep disturbances

Fasting

Certain foods; e.g. chocolate, cheese, red wine



Menstruation



Bright light

- She no longer responded to NSAIDS and oral Sumtriptan only provides slight relief.
- Her current headache is 1 to 2 times per week, each episode lasting 6 to 8 hours.

- How would you treat the patient?

- A. Switch to oral cafergot.
- B. Switch to oral anarex.
- C. Switch to oral tramadol
- D. To start oral preventive.

PRINCIPLES OF MANAGEMENT

- Patient education: diagnosis, treatment plan
- Abortive and preventive medications
- Education on medication overuse headache (MOH)
- Management of triggering factors/ comorbidities
- Lifestyle modification
- **Manage expectation**

CURRENT TREATMENT PARADIGM: ABORTIVE MEDICATIONS

ABORTIVE MEDICATIONS WITH ESTABLISHED EFFICACY
(American Headache Society (AHS) Consensus Statement, 2021)

NONSPECIFIC:
-Paracetamol
-NSAIDS
-COX-2 inbihitors
-Combination analgesic

MIGRAINE-SPECIFIC:
-Ergotamine derivates (X)
-Triptans (5-HT1B & 1D receptor)

NEW MIGRAINE-SPECIFIC ABORTIVES:
-Lasmiditan
-Gepants (small molecule CGRP mAB)

- Ergot is least preferred:

- Triptans:
a) Sumatriptan
b) Zolmitriptan
c) Eletriptan
d) Almotriptan
e) Rizatriptan
f) Naratriptan
g) Frovatriptan

Evidence in aborting migraine attacks within 2 hrs

Gepants:
a) Rimegepant (abortive & preventive)
b) Ubrogepant (abortive only)

INITIATION, TITRATION AND ESCALATION OF ABORTIVE MEDICATIONS

ANALGESICS / NSAIDS

- Take during early course of headache.
- Appropriate doses.

ANTI-EMETICS:
Consider adding to analgesics, NSAIDS or triptans

TRIPTANS

- Partial response: consider increasing the dose for next attack.
- Still inadequate response: switch to different triptan/ different route of administration/ combine with PO Naproxen 550mg for synergistic effect. (if effective: just take triptan + Naproxen combo as 1st line in future).
- Failed 3 triptans: switch to different class of abortive med.

LASMIDITAN GEPANTS

- Consider if:
- unable to tolerate or contraindications to triptans.
- Partial or no response to triptan monotherapy/ combination therapy.

ERGOT DERIVATIVES

- Consider if all recommended acute treatments with better safety profile has failed.

RELAPSE OF HEADACHE

- Repeat 2nd dose of same med within the recommended dose limit (eg. Repeat another dose of Sumatriptan after 2 hrs)
- If not effective: switch to different class of meds
- Triptan & NSAIDS combination

MAX NUMBER OF DAYS ON ABORTIVES: 2-3 days/ week, max 10 days/ mth for analgesics & NSAIDS, max 8 days/mth for combined analgesics & triptans

Puledda, Francesca, et al. "International Headache Society Global Practice Recommendations for the Acute Pharmacological Treatment of Migraine." *Cephalalgia*, vol. 44, no. 8, 2024, pp. 1–45.

COMORBIDITIES

UNCONTROLLED HPT, STROKE OR OTHER VASCULAR DISEASES

- Avoid ergotamine & DHE at all times.
- 1st line: paracetamol
- 2nd line: lasmiditan, gepants
- NSAIDS: limits use in view of concomitant antithrombotic therapy
- Triptans: only when above failed; use with caution if conditions listed are well controlled

Antiemetics can be helpful

PREGNANCY

- Non-pharmacologic approaches
- Paracetamol and triptans can be used with caution across the 3 trimesters of pregnancy

BREASTFEEDING

- Preferred choice: paracetamol
- Diclofenac, naproxen, triptans, gepants can be used with caution: eg. Withholding breastfeeding for 8-12 hrs.

Puledda, Francesca, et al. "International Headache Society Global Practice Recommendations for the Acute Pharmacological Treatment of Migraine." *Cephalalgia*, vol. 44, no. 8, 2024, pp. 1–45.

STATUS MIGRAINOSUS (NON-ORAL OPTIONS)

- Attacks lasting >72hrs
- Lack of reliable evidence
- Non-oral form of administration:

a) IM NSAIDS

b) IV antidopaminergic agents (eg. Metoclopramide, chlorpromazine, prochlorperazine etc)

c) IV Magnesium

d) IV dihydroergotamine (DHE)/ sodium valproate

NON-PHARMACOLOGICAL TREATMENT OPTIONS

TABLE 4-5 **Herbal and Nutritional Supplements for Prevention of Migraine**

Name	Common dosing	Common side effects	Level of evidence per 2012 AAN/AHS guidelines[10]	Notes
Magnesium	400-600 mg once daily or 200-300 mg 2 times a day	Diarrhea, nausea	B	Best studied/bioavailable formulations are magnesium oxide, magnesium gluconate/glycinate/aspartate (sometimes sold as chelated magnesium)
Riboflavin (vitamin B_2)	400 mg once daily	Diarrhea, frequent urination, yellow urine discoloration	B	Recent systematic review showed benefit in adults but not children[43]
Coenzyme Q10	300 mg once daily	None reported	C	Level C evidence in 2012 guidelines
Melatonin	3 mg nightly	Sedation, fatigue	None	Recent pediatric trial was positive; randomized controlled trial results in adults have been conflicting[44,45]
Feverfew	50-300 mg once daily	Nausea, bloating; avoid in people with allergies to ragweed or chamomile	B	Recent systematic review found conflicting evidence[46]
***Petasites* (butterbur)**	Use not recommended		A	Not recommended because of risk of hepatotoxicity

Treatment plan for Madam X:

- Abortive:

a) Oral sumatriptan: to take it during the early course of the migraine (prodrome phase)

b) Oral metoclopramide

c) If headache doesn't abort after 2 hours: to repeat another dose of oral sumatriptan together with NSAIDS for synergistic effect.

d) Future plan:

– Keep in view change to other triptan eg zolmitriptan, eletriptan

– If triptans fail: for trial of gepants

- Discussed on starting oral preventive for her migraine.

Which migraine preventive medication would you consider as 1st line for Madam X?

- A. Amitriptylline
- B. Propranolol
- C. Topiramate
- D. Valproate
- E. Flunarizine
- F. I am not sure

INDICATIONS TO START PREVENTIVE MEDICATIONS

- ≥ 1 of the following:

a) ≥4 monthly headache days
b) Migraine has impact on personal/ social/ professional life
c) Acute medications are used frequently for acute attacks
d) Optimized acute treatment is ineffective in providing migraine relief

Puledda, Francesca, et al. "International Headache Society Global Practice Recommendations for the Preventive Pharmacological Treatment of Migraine." *Cephalalgia*, vol. 44, no. 8, 2024, pp. 1–45.,

CURRENT TREATMENT PARADIGM: PREVENTIVE MEDICATIONS

PROBABLY EFFECTIVE:
- TCA- amitriptyline
- Parenteral: Onabotulinumtoxin A + CGRP mAb

PREVENTIVE MEDICATONS WITH ESTABLISHED EFFICACY (AHS 2021)

NEW: CGRP receptor antagonist
- Rimegepant (EM) (abortive & Preventive)
- Atogepant

ORAL:

Propranolol, metoprolol, timolol

Topiramate

Candesartan

Valproate sodium, divalproex sodium

Frovatriptan (miniprophylaxis for Menstrual-related migraine)

PARENTERAL:

Onabotulinum toxin A (CM)

CGRP mAb: (EM & CM)

a) SC

-monthly: erenumab (Aivomig), fremanezumab (Ajovy), galcanezumab (Emgality)

-quarterly: fremanezumab (Ajovy)

b) IV infusion -> eptinezumab (vyepti) (quarterly)

The American Headache Society Consensus Statement: Update on Integrating New Migraine Treatments into Clinical Practice." *Headache: The Journal of Head and Face Pain*, vol. 61, no. 6, 2021, pp. 1021-1039

WHICH PREVENTIVE MEDICATION TO CHOOSE?

Factors to consider:

- Demographic: age, gender (female), occupation, BMI
- Comorbidities: asthma, hypertension, PSY disorder eg. depression/ anxiety, glaucoma, kidney stone, neuropathic pain; seizure; insomnia etc
- Side effect profiles: drowsiness etc
- Efficacy vs. cost
- Contraception/ plan for pregnancy:
  - women of childbearing age: avoid topiramate (contraception inefficacy) and valproate (teratogenicity)

Table 4. Medications preferred or avoided for preventive treatment of migraine depending on comorbidities.

Class/drug	May be preferred in patient with	Avoid or use with caution in patient with
Tricyclic antidepressants (amitriptyline, nortriptyline)	Insomnia, depression, anxiety, neuropathic pain, comorbid tension-type headache	Heart block, significant cardiovascular disease, urinary retention, uncontrolled glaucoma (especially angle closure type), prostate disease, mania
SNRIs (e.g., venlafaxine)	Depression, anxiety	Hypertension, kidney failure
Valproate	Epilepsy, mania, anxiety, comorbid depression	Liver disease, bleeding disorders, alcoholism, obesity, pregnancy (human teratogen)
Topiramate	Epilepsy, obesity, mania, anxiety, essential tremor, alcohol dependence	Kidney stones, kidney failure, angle closure glaucoma, depression, patients with cognitive concerns, pregnancy
Beta-blockers (propranolol, metoprolol)	Hypertension, angina, comorbid anxiety	Asthma, heart block, congestive heart failure, hypotension, bradycardia, Raynaud's, peripheral vascular disease, insulin-dependent diabetes, sexual dysfunction
Calcium Channel Blockers (flunarizine)	Dizziness, vertigo	Depression, Parkinson's disease
ACEIs/ARBs (candesartan)	Hypertension	Hypotension, pregnancy
OnabotulinumtoxinA	Chronic migraine	Pre-existing dysphagia, breathing difficulties or muscle weakness, myasthenia gravis

ACEIs: angiotensin-converting enzyme (ACE) inhibitors; ARBs: Angiotensin II receptor blockers; SNRIs: Serotonin–norepinephrine reuptake inhibitors.

INITIATION, TITRATION OF PREVENTIVE TREATMENT

Review Article

Approach to headache disorde migraine: consensus guidelines of Singapore, first

Yi Jing Zhao[1], MMed, MRCP, Yasmin Bte Idu Jion[1], MMed, MRCP, King Hee Ho[2], Yee Cheun Chan[4,5], MRCP, MHPE, Lai Lai Ang[5,6], GDFM, MMedFM, Sov Tuck Seng Wu[9], B.Pharm, MHSM, Jonatha

[1]Department of Neurology, National Neuroscience Institute, [2]Ho Neurology Pte Ltd, Glene [4]Division of Neurology, Department of Medicine, National University Hospital, [5]Yong Loo L Polyclinics, National University Health System, [7]The Pain Specialist, Mount Elizabeth Hos University Health System, [9]Department of Pharmacy

Preventive Treatment of Migraine

Options	Medication	Starting dose	Titration	Therapeutic range	Remarks
1st Line	Propranolol				
	Amitriptyline				
	Nortriptyline				
2nd Line	Topiramate				
	Candesartan				
3rd Line	CGRP monoclonal antibodies	• SC Erenumab 70–140 mg every month • IV Epitinezumab 100 mg every 3 months • SC Fremanezumab 225 mg every month OR 675 mg every 3 months • SC Galcanezumab 240 mg loading dose (1st month) followed by 120 mg every month			Consider if patient has failed >/=2 preventive treatment options
Others	Sodium valproate	250 mg OD	250 mg/wk	400-1500 mg/ day	Avoid in pregnancy or if pregnancy is planned
	Flunarizine	5–10 mg ON	5 mg/wk	10 mg/day	Avoid in depression
	Onabotulinumtoxin A	155–195 IU according to the PREEMPT injection protocol (across 31 sites) once every 12 weeks.			Consider if a patient has a diagnosis of chronic migraine and has failed >/=2 preventive treatment options.
Nutraceuticals	Riboflavin	200 mg BD	–	200mg BD	Efficacy may be limited, few side effects
	Magnesium	300 mg BD	–	300mg BD	Drug of choice in pregnancy or if patient prefers non-prescription medications.

AHS 2024 position statement update released on 11/3/24:

- CGRP-targeting therapies should be considered as a 1st-line approach for migraine prevention along with previous 1st-line Tx
- without a requirement for prior failure of other classes of migraine prevention treatment

ESCALATION OF PREVENTIVE TREATMENT

TIMING FOR ASSESSMENT OF EFFICACY

- Titrate till **target dose** -> evaluate effectiveness after 3 mths.
- Injectable drugs administered monthly: min. 3 mths
- Injectable drugs administered quarterly: min. 6 mths

FAILURE OF INITIAL MIGRAINE PREVENTIVE

- Initial migraine preventive med is not well tolerated/ ineffective: switch to different class of med
- Multiple drug failure: Onabotulinum toxinA, CGRP mAb or oral gepants)
- Failure of CGRP mAB: switch to another CGRP mAB (targeting CGRP ligand vs receptor)

ROLE OF COMBINATION THERAPY

- Inadequate benefit from single migraine preventive treatment OR
- Combination of 2 agents represents an advantage on the management of comorbidities
- Eg. PO preventive with injection form; Onabotulinumtoxin A with CGRP Mab; CGRP mAB and gepants

SUCCESS CRITERIA TO DETERMINE IF PREVENTIVE TX IS EFFECTIVE

- ≥1 of the following:
- ≥50% decrease in mthly migraine days/ mod-severe headache days (based on headache diary)
- Clinically meaningful subjective improvement (reported by patients/ evaluated by PGIS)
- Clinically meaningful improvement in MIDAS/ HIT-6 questionnaire scores

Puledda, Francesca, et al. "International Headache Society Global Practice Recommendations for the Preventive Pharmacological Treatment of Migraine." *Cephalalgia*, vol. 44, no. 8, 2024, pp. 1–45.,

WHEN TO DISCONTINUE PREVENTIVE TREATMENT?

- PO preventive: ≥6 mths
- Non-oral preventive: ≥12 mths
- Longer treatment period for chronic migraine

- Aim:

a) <4 mthly migraine days over 3 consecutive mths
b) reduction of disease burden

HOW DO WE REDUCE THE RISK OF PROGRESSION TO CHRONIC MIGRAINE (CM)?

- Patient education: diagnosis, treatment plan
- Taking abortive medication in the correct way, compliance to preventives
- Education on medication overuse headache (MOH)
- Triggering factors, lifestyle modification
- Comorbidities: OSA, psychiatric disorders, obesity
- **Manage expectation:** frequency, severity, interictal burden, disability associated with migraine etc.

ICHD-3 CRITERIA FOR MEDICATION-OVERUSE HEADACHE

TABLE 5 ICHD-3 criteria for medication-overuse headache[1]

(A) Headache occurring on ≥15 days/month in a patient with a preexisting headache disorder

(B) Regular overuse for >3 months of one or more drugs that can be taken for acute and/or symptomatic treatment of headache, with medication overuse defined as

1. Ten or more days/month for ergot derivatives, triptans, opioids, combination analgesics,[a] and a combination of drugs from different classes that are not individually overused
2. Fifteen or more days/month for nonopioid analgesics, acetaminophen, and NSAIDs

(C) Not better accounted for by another diagnosis

The American Headache Society Consensus Statement: Update on Integrating New Migraine Treatments into Clinical Practice." *Headache: The Journal of Head and Face Pain*, vol. 61, no. 6, 2021, pp. 1021-1039

MEDICATION OVERUSE HEADACHE (MOH)

- MOTS trial 2022 (Medication Overuse Treatment Strategy):

a) 720 participants with CM

b) Switched from the overused medication to an alternative used ≤2 d/wk, OR

Continue with overused medication with no max. limit

a) Endpoint: reduction nin moderate to severe headache days

b) Migraine preventive medication without switching /limiting symptomatic medication is **not inferior** to migraine preventive medication with switching to a different symptomatic medication with a maximum limit of 2 treatment days per week.

- What are the options?

a) ↓ intake of overused drug(s) might not be necessary

b) Caution of sudden withdrawal in patients overusing opioids or barbiturate

c) Consider gepants: not associated with MOH

d) Initiate preventive medication

WHEN TO REFER TO NEUROLOGIST?

- Patients with suspected secondary headaches for consideration of brain imaging.

- Patients with primary headache disorders:

a) that are refractory to treatment/ contraindications to treatment

b) certain primary headache disorders eg. cluster headache, SUNCT, SUNA

- Specific population of patient eg. women who are pregnant or breastfeeding.

ONLINE RESOURCES: INTERNATIONAL HEADACHE SOCIETY (IHS)

IHS Classification ICHD-3

- Home
- How to use the classification
- Classification
- **Part I: The primary headaches**
- 1. Migraine
- 2. Tension-type headache (TTH)
- 3. Trigeminal autonomic cephalalgias (TACs)
- 4. Other primary headache disorders
- **Part II: The secondary headaches**
- 5. Headache attributed to trauma or injury to the and/or neck
- 6. Headache attributed to cranial or cervical vas disorder

International Headache Society

Home > Resources/Events

- IHS 2024 | Science
- IHS Regional Headache Conference (RHC)
- IHS newsletter
- In remembrance
- Calendar of events

Resources/Events

- Introduction
- International Headache Congress (IHC)
- Guidelines /ICHD
- Cephalalgia

Practice Recommendations

- **Migraine**

Clinical Trials (Recommendations) Guidelines

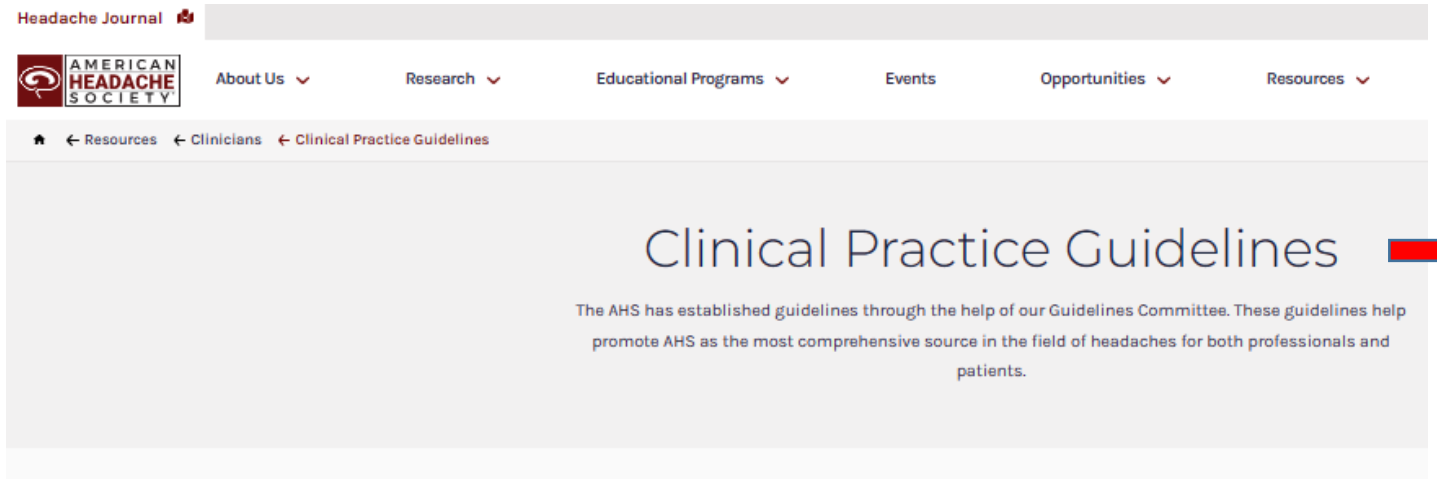
- **Cluster Headache**
- **Migraine**
- **Post-traumatic headache**
- **Tension-type headache**
- **Idiopathic intracranial hypertension**

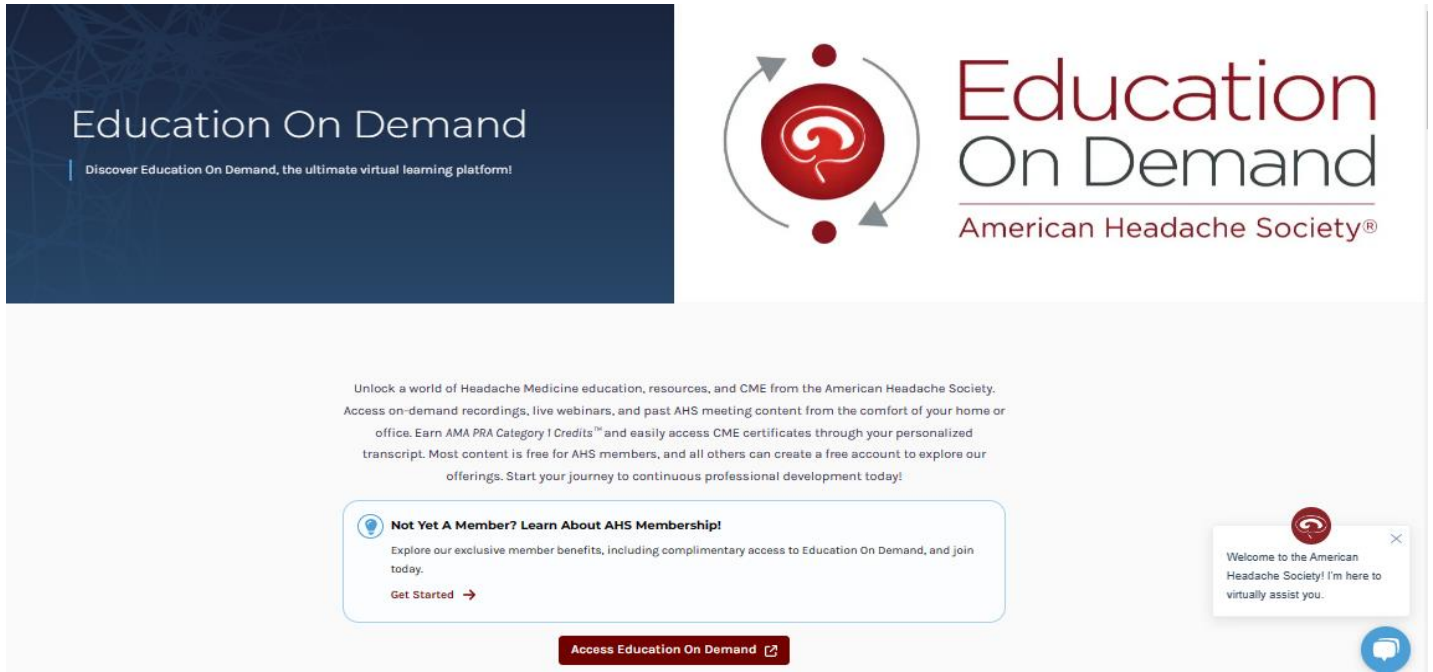
Back to top

The Resources/Events section includes IHS Guidelines, including the International Classification of Headache Disorders (ICHD) and national society guidelines, information on Cephalalgia, the official journal of IHS, International Headache Congress (IHC) information and publications, details of IHS grants and training opportunities, IHS newsletters, and links to events in headache and related fields.

IHC 2025 will take place in São Paulo, Brazil, in September 2025 - click below to visit the IHS website for more information — to register — and to submit your research

ONLINE RESOURCES: AHS





Publications

Access the current list of AHS Guidelines, Position Statements, Evidence Assessments, and Consensus Opinions published in the journal Headache®.

2024

Read More

Andrew C. Charles MD, Kathleen B. Digre MD, Peter J. Goadsby MD, PhD, Matthew S. Robbins MD, Andrew Hershey MD, PhD, The American Headache Society. (2024) Calcitonin gene-related peptide-targeting therapies are a first-line option for the prevention of migraine: An American Headache Society position statement update.

2021

Read More

Jessica Ailani MD, Rebecca C. Burch MD, Matthew S. Robbins MD, on behalf of the Board of Directors of the American Headache Society. (2021) The American Headache Society Consensus Statement: Update on integrating new migraine treatments into clinical practice.

2019

Read More

Oskoui M, Pringsheim T, Holler-Managan Y, Potrebic S, Billinghurst L, Gloss D, Hershey AD, Licking N, Sowell M, Victorio MC, Gersz EM, Leininger E, Zanitsch H, Yonker M, Mack K. (2019) Practice guideline update summary: Acute treatment of migraine in children and adolescents: Report of the Guideline Development, Dissemination, and Implementation Subcommittee of the American Academy of Neurology and the American Headache Society.

Consensus Article | Open access | Published: 11 June 2022

European Headache Federation guideline on the use of monoclonal antibodies targeting the calcitonin gene related peptide pathway for migraine prevention – 2022 update

Simona Sacco, Faisal Mohammad Amin, Messoud Ashina, Lars Bendtsen, Christina I. Deligianni, Raquel Gil-Gouveia, Zaza Katsarava, Antoinette MaassenVanDenBrink, Paolo Martelletti, Dimos-Dimitrios Mitsikostas, Raffaele Ornello, Uwe Reuter, Margarita Sanchez-del-Rio, Alexandra J. Sinclair, Gisela Terwindt, Derya Uluduz, Jan Versijpt & Christian Lampl

The Journal of Headache and Pain **23**, Article number: 67 (2022) | Cite this article

monoclonal antibodies targeting the calcitonin gene related peptide pathway for migraine prevention – 2022 update

Simona Sacco, Faisal Mohammad Amin, Messoud Ashina, Lars Bendtsen, Christina I. Deligianni, Raquel Gil-Gouveia, Zaza Katsarava, Antoinette MaassenVanDenBrink, Paolo Martelletti, Dimos-Dimitrios Mitsikostas, Raffaele Ornello, Uwe Reuter, Margarita Sanchez-del-Rio, Alexandra J. Sinclair, Gisela Terwindt, Derya Uluduz, Jan Versijpt & Christian Lampl

The Journal of Headache and Pain **23**, Article number: 67 (2022) | Cite this article

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Abstract

Background

Methods

Results

Conclusions

LOCAL RESOURCES

Quick Response Code:

Review Article

Approach to headache disorders and the management of migraine: consensus guidelines from the Headache Society of Singapore, first edition (2023)

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7 Feb 2023| Defining Med

The article is contributed/written by National Neuroscience Institute

TAKE HOME MESSAGES

- Early diagnosis and effective treatment plan:
  - Start early, effective abortive medication, titrate preventive medication to effective dose.

- Management of migraine-related comorbidities (multidisciplinary approach), medication overuse etc.

- Patient education and management of patient’s expectation.

Image

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