International Headache Society (IHS) Global Practice Recommendations: Pharmacological Treatment of Migraine

Which acute treatment is suitable for your patient?

Acute (abortive) treatment aims to stop or reduce the severity of a migraine attack once it has begun. The following algorithm outlines a stepwise approach to selecting and escalating acute medications.[1]

Scenario: Patient is non-responsive to analgesics or NSAIDs taken at appropriate doses and early during the attack

View list of acute migraine medications recommended by guidelines

Switch to a triptan

Triptan is effective → Maintain and observe

Response still inadequate

Dose is effective

Headache relapse after initial successful treatment

Increase triptan dose

Take second dose of same treatment†

Response still inadequate

Response still inadequate

Switch to another triptan*

Response still inadequate

Combination of triptan + NSAID (+ antiemetic‡ if needed)

Response still inadequate

Consider gepants or lasmiditan (if available)

Response still inadequate

Ergot derivatives (if all acute treatments with better safety profiles have failed)

Best practices[1]

Timing

Migraine without aura: Medication should be taken while the pain intensity is still mild, preferably as early as possible in the headache phase.

Migraine with aura: Medication should be taken as soon as the headache phase starts.

Dosage and frequency

To prevent medication overuse,§ limit the use of analgesics, NSAIDs or lasmiditan to less than 10 days per month.

For combined analgesics and triptans, limit the intake to less than 8 days per month.

*If the patient is not responding to the first triptan, used in adequate dosages, route of administration, and taken at the proper time in two out of three attacks.

†It is important to wait at least 2 hours from the first dose before repeating a combination treatment.

‡Non-oral formulations of acute medications may be considered for nausea and vomiting, such as subcutaneous injections, intranasal sprays or suppositories, based on availability, subjective preference, and medical history. Orally disintegrating tablets may also be considered.

§Please note that recommended limits for acute migraine medication use may vary across international guidelines.

Abbreviation: NSAID, non-steroidal anti-inflammatory drug.

Reference: 1. Puledda F, et al. *Cephalagia* 2024;44(8).

Managing acute migraine in complex presentations[1]

Inadequate response to paracetamol/NSAIDs

Preferred: Triptan

If inadequate response in ≥2 of 3 attacks:

Try a different triptan (up to 3 triptans before changing class)

If ineffective, consider:

Gepants or lasmiditan

If ineffective, consider:

Ergot derivatives

Menstrual migraine

Preferred: Triptan

If inadequate response after dose optimisation and triptan switching, try:

- Combination of triptan with NSAID
- Gepant or lasmiditan
- Short-term prevention with naproxen or frovatriptan (if cycle is regular)

If all above treatments are ineffective, consider:

- Hormonal treatment with progesterone-only contraceptives
- Referral to a specialist

History of stroke, CVD, or uncontrolled hypertension

Preferred: Paracetamol

If inadequate response after dose optimisation, consider:

Gepants or lasmiditan

Other options to consider:

- NSAIDs (used conservatively, considering the concomitant use of antithrombotic therapy)
- Triptans (used with caution if the above conditions are under control and the above treatments were not effective)

AVOID: Dihydroergotamine and ergotamine

Managing acute migraine in special populations[1]

Pregnant women

- **Preferred:** Non-pharmacologic approaches

If ineffective, consider:

- Paracetamol or triptan
- Metoclopramide may be added for nausea, vomiting or if pain relief is inadequate

Breastfeeding women

- **Preferred:** Paracetamol

If ineffective, consider:

- Diclofenac, naproxen, triptans and gepants can be used with caution, such as withholding breastfeeding for 8–12 hours.

Children and adolescents

- **Preferred:** Paracetamol (dose adapted to body weight)

If ineffective, consider:

- Triptan (oral rizatriptan or sumatriptan nasal spray are the most studied triptans in adolescents)
- Metoclopramide may be added for nausea, vomiting, or in very disabling attacks

Older individuals (>65 years)

- **Preferred:** Paracetamol

If ineffective, consider:

- Acetylsalicylic acid and NSAIDs with monitoring of potential adverse events related to gastrointestinal bleeding, and renal and hepatic insufficiency

If ineffective, consider:

- Triptans as a third-line option in individuals without uncontrolled hypertension or serious cardiovascular or cerebrovascular disease

Other options to consider:

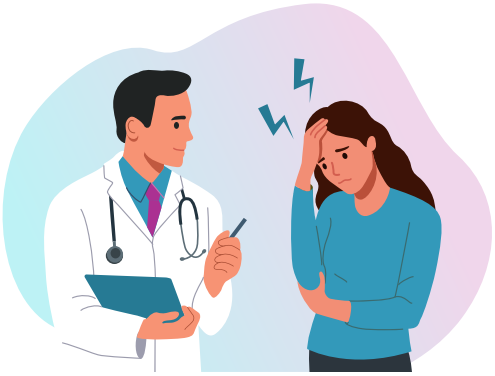
- Gepants or lasmiditan for people with contraindications, or not responding, to triptans

Abbreviation: NSAID, non-steroidal anti-inflammatory drug.

Reference: 1. Puledda F, et al. *Cephalagia* 2024;44(8).

When does your patient need preventive treatment?

Preventive treatment is used to reduce the frequency, severity, and duration of migraine attacks over time. The following guidance outlines criteria for initiating, evaluating, and managing preventive pharmacotherapy.[1]



Consider starting your patient on preventive treatment if they present with one or more of the following conditions:

- **≥4 headache days per month**
- **Migraine impacts personal, social and professional life**
- **Inadequate response to acute migraine medication**
- **Acute medications are used frequently to treat the attacks**

Initiate or refer for preventive treatment[1]

View list of preventive migraine medications recommended by guidelines

Evaluate the effectiveness of a preventive migraine treatment after:

3 months

For oral medication

6 months

For injectables
(administered quarterly)

Criteria to rate preventive therapy as effective:

- ≥50% reduction in monthly migraine days (or moderate–severe headache days), ideally based on a headache diary
- Clinically meaningful patient-reported improvement evaluated by Patient Global Impression scales
- Clinically meaningful improvement in MIDAS or HIT-6 scores†
- *For chronic migraine:* A ≥30% reduction may be sufficient to continue treatment beyond 3 months if multiple preventive options have failed

If ineffective

Combination therapy with two migraine preventive agents is recommended when:

- Individual experiences inadequate response to a single agent
- The combination of two agents represents an advantage in the management of comorbidities

If effective

Before considering treatment discontinuation upon reaching effectiveness,* continue for at least:

6 months

For oral medication

12 months

For injectables
(administered quarterly)

*The decision to stop a migraine preventive drug should be based on having **less than 4 migraine days per month**, over a period of **3 consecutive months** or based on the patient's satisfaction with the reduction of disease burden achieved.

†The clinically meaningful improvement in MIDAS score is defined by the American Headache Society as: i) reduction of ≥5 points for baseline score 11–20 or ii) reduction of ≥30% for baseline score ≥20. The clinically meaningful improvement in HIT-6 score is a reduction of ≥ 5 points.[1,2]

Abbreviations: HIT-6, Headache Impact Test-6; **MIDAS,** Migraine Disability Assessment; **NSAID,** non-steroidal anti-inflammatory drug.

References: 1. Puledda F, et al. *Cephalagia* 2024;44(9). **2.** American Headache Society. *Headache* 2019;59:1-18.

Managing migraine prophylaxis in complex presentations[1]

Medication overuse headache

The following approaches are recommended:

- Reduced intake of overused drug(s) **simultaneous** with the initiation of preventive treatment
- Reduced intake OR interruption of overused drug(s) **followed by** initiation of preventive treatment

Treatment for medication overuse may include:

- CGRP monoclonal antibodies, topiramate and onabotulinumtoxinA

Chronic migraine

Treatment for chronic migraine may include:

- Atogepant, erenumab, eptinezumab, fremanezumab, galcanezumab, onabotulinumtoxinA and topiramate

Additional considerations:

- Of note, topiramate should be avoided during pregnancy and in women of childbearing age who are not using highly effective contraception methods

Managing migraine prophylaxis in special populations[1]

Pregnant women

- **Preferred:** Non-pharmacologic approaches OR peripheral nerve blocks

If ineffective, consider:

- Propanolol
- Amitriptyline
- OnabotulinumtoxinA (for chronic migraine)

AVOID:

- Propanolol (for women in their third trimester to avoid the risk of adverse events to the fetus and neonate)
- Valproate, topiramate, candesartan and lisinopril

Breastfeeding women

- **Preferred:** Non-pharmacologic approaches OR peripheral nerve blocks

If ineffective, consider:

- Propanolol
- Amitriptyline
- OnabotulinumtoxinA (for chronic migraine)

If response still inadequate, consider:

- Candesartan (used with caution)
- CGRP monoclonal antibodies (used with caution after ≥2 weeks postpartum)

AVOID:

- Lisinopril

Children and adolescents

- **Preferred:** Beta-blocker or flunarizine (dose adapted to body weight)

If ineffective, consider:

- Low-dose topiramate or amitriptyline

Older individuals (>65 years)

- **Preferred:** Appropriate prophylactic migraine treatment selected after considering possible comorbidities and the needs of dose adjustments, for all treatments

Additional considerations:

- Monitor closely for early detection of adverse effects and the potential need to modify the course of treatment
- OnabotulinumtoxinA may represent a treatment option for individuals with chronic migraine and individuals up to 80 years

Abbreviation: NSAID, non-steroidal anti-inflammatory drug.

Reference: 1. Puledda F, et al. *Cephalagia* 2024;44(9).