



# NEUROLOGY: MIGRAINE

## Background

This guideline covers advice on the diagnosis and management of migraine in adult patients. It aims to improve the recognition and management of migraine, highlight red flag symptoms, and provide advice on when to refer.

<p><b>Who?</b></p> 	<p>Adult patients who are experiencing headaches consistent with migraine.</p>
<p><b>Presentation/ Symptoms</b></p> 	<p><b>Red Flags</b></p> <ul style="list-style-type: none"> <li>• New onset migraine in over 50s</li> <li>• New persistent, progressive headache in a patient with prior migraine</li> <li>• Headaches associated with focal neurology, loss or altered consciousness, new cognitive dysfunction</li> <li>• Headache with raised ICP features AND severe vomiting, drowsiness ± papilloedema or visual loss</li> <li>• Headaches associated with systemic features (e.g. worsening headache with fever, meningism or malignant hypertension) or raised ESR/CRP</li> <li>• Sudden onset headache (thunderclap headache) &lt;1 minute to maximum severity</li> <li>• Side locked headache (i.e. migraine only ever affecting one side)</li> <li>• New onset headache in patient with prior history of cancer</li> <li>• Recent head trauma (within last 3 months)</li> <li>• Orthostatic headache</li> <li>• Headache triggered by cough, sneeze, valsalva or exercise</li> <li>• Compromised immunity (HIV or immunosuppressant drugs)</li> <li>• New headache in late pregnancy or early post-partum</li> </ul> <p><b><u>Features of/ Symptoms/ Presentation of migraine</u></b></p> <p>Moderate to severe headache (unilateral or bilateral) pounding/throbbing in nature lasting 4 -72 hours.</p> <p>Can be associated with</p> <ul style="list-style-type: none"> <li>• Nausea and vomiting</li> <li>• Photophobia</li> <li>• Phonophobia</li> <li>• Aggravated by movement (often preference is to lie still in a dark room)</li> </ul> <p><b><u>Examination</u></b></p> <ul style="list-style-type: none"> <li>• Neurological examination (including fundoscopy) normal</li> </ul> <p><b><u>Diagnostics:</u></b></p> <p>None required unless have red flags</p>

**Management  
in Primary  
Care**



After informing the patient of a migraine diagnosis consider signposting for further migraine information e.g. Migraine Trust's website

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

Treatment strategies include addressing lifestyle measures for example improving the quality and quantity of sleep, reducing anxiety levels and consideration of dietary triggers (cheese, chocolate, alcohol, caffeine, monosodium glutamate, citrus fruits).

Exclude medication overuse headache (more than 15 days a month for more than 3 months) by reviewing over the counter analgesia use.

Pharmacological treatment options include:

**For the acute attack**

- Ibuprofen 400-600mg or Paracetamol or Aspirin 600-900mg. Adding an antiemetic to acute treatment can improve efficacy unrelated to nausea and/or vomiting by improving gastric motility and aiding drug absorption.
- Triptan (start with the one with lowest cost unless clinical reasons).
  - Oral (not licensed in > 65 years): 1<sup>st</sup> line sumatriptan.
  - With antiemetic\*\* or consider alternative route if oral ineffective e.g., oro-dispersible (more cost effective than melt wafers), nasal spray or injectable.
  - After 2 treatment failures a trial with an alternative triptan is recommended.
  - Note triptan medication cannot be taken twice for the same migraine attack.
- Try combination of triptan + paracetamol or NSAID.
- Aim to limit acute treatments to no more than 8 days per month to avoid medication overuse headache.
- Avoid opiates including codeine.
- Lack of response to one triptan does not predict response to other triptans.

\* If considering an alternative triptan to sumatriptan prescribe the most cost-effective taking into account preferred formulary choices. In comparison to sumatriptan 100 mg (recommended by [BASH](#)):

- Lower adverse events: naratriptan 2.5 mg and frovatriptan 2.5 mg
- Better 2-hour pain response: rizatriptan 10 mg
- Lower recurrence rate: frovatriptan 2.5 mg

For women and girls with predictable menstrual related migraine that does not respond adequately to standard acute treatment, consider treatment with frovatriptan (2.5 mg twice a day) or zolmitriptan (2.5 mg twice or three times a day) on the days migraine is expected

**\*\*Antiemetics**

- Metoclopramide licensed for > 18 years for nausea and vomiting associated with acute migraine. Maximum treatment duration is 5 days. Should not be used regularly due to the risk of extrapyramidal side effects. Metoclopramide safety alert: <https://www.gov.uk/drug-safety-update/metoclopramide-risk-of-neurological-adverse-effects>.
- Prochlorperazine (only a buccal preparation of prochlorperazine is licensed for this indication).

- Domperidone safety alert:  
<https://www.gov.uk/drug-safety-update/domperidone-risks-of-cardiac-side-effects> (recommended by **BASH**).

### **Preventive Treatments**

If patients experience 4 or more migraine days a month, consider preventive treatments (recommended by **BASH**). Treatment involves starting a low dose, with regular titrations upwards according to response, until either headaches improve, side effects intervene, or a maximum dose is reached. Continue for at least 6-8 weeks to adequately assess effect.

Treatment choice will depend on individual patients – on co-morbidities, personal preferences, the side effect profiles and with reference to the patient's current clinical situation and future plans (e.g. pregnancy or contraception). Offer one of the following after a full discussion of the benefits and risks of each option

- **Beta-Blockers.** Propranolol 10mg bd - can titrate in 10-20 mg steps (maximum 120mg – 240mg daily) (recommended by **BASH**). Atenolol 25 bd daily - can titrate in 50 mg steps (maximum 200mg daily).

Start at a low dose and increase gradually until migraine frequency improves, side effects intervene or the maximum dose is reached. May cause worsening of asthma therefore contraindicated. Other side-effects include light-headedness, or bad dreams.


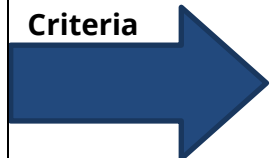
Pregnancy. May cause intra-uterine growth restriction, neonatal hypoglycaemia, and bradycardia

*Note: The maximum dose of rizatriptan in people who are also taking propranolol should be 5 mg due to the risk of interactions — rizatriptan should not be taken within two hours of taking propranolol.*

- **Topiramate** tablets (capsules more expensive) starting at 25mg once daily. Can be increased further in steps of 25mg no sooner than every 2 weeks. The recommended total daily dose is 50 mg bd (can increase to maximum 100mg bd but care is needed as side-effects more likely). Can cause cognitive slowing. This usually improves after the first 6 weeks. Other side effects include drowsiness, confusion, blurred vision, loss of appetite, renal stones. If stopping, need to reduce over 2 weeks to avoid rebound headache.

**Warning:** Topiramate is contraindicated in migraine prophylaxis in pregnancy and in women of childbearing potential if not using a highly effective method of contraception.

- Women should be fully informed of risks related to the use of topiramate during pregnancy (major congenital malformations) – see **MHRA**. Please do a pregnancy test before commencing treatment.
- Highly effective contraception is required throughout treatment. Topiramate can potentially reduce the efficacy of hormonal contraception. Acceptable forms of contraception include an intrauterine method (Cu-ICD or LNG-IUS), or the medroxyprogesterone acetate depot

	<p>injection PLUS a barrier method. Use of combined hormonal contraception, progestogen-only pills and the etonogestrel implant is not recommended. For more information see <a href="#">MHRA</a> and <a href="#">FSRH: Drug Interactions with Hormonal Contraception</a>.</p> <p>If Topiramate or Beta-Blockers are not suitable or effective, consider:</p> <ul style="list-style-type: none"> <li>• <b>Amitriptyline</b> starting at 10-25mg in the evening, increased to 10-25mg steps after a minimum of 2 weeks with further increases if required to a maximum dose of 150mg at night, can cause tiredness, dry mouth and difficulty passing water. This can be used in combination with beta-blockers. Manufacturer advice: not to be used during pregnancy unless clearly necessary and only after careful consideration of the risk/benefit.</li> <li>• <b>Candesartan</b> (off-label use recommended by <a href="#">BASH</a>) starting at 2 mg once a day. This can be increased in 2mg steps up to 8 mg bd if required. Possible side effects include cough, dizziness. Dose increases are every 4 weeks. Candesartan is not recommended during first trimester of pregnancy and contraindicated during the second and third trimesters.</li> <li>• <b>Riboflavin</b> (400 mg once a day). <b>Not recommended on prescription (high cost) but can be bought OTC.</b> May be effective in reducing migraine frequency and intensity. Avoid if planning a pregnancy or pregnant.</li> </ul> <p>N.B. Do not prescribe gabapentin nor pizotifen for migraine prophylaxis.</p>
<p><b>Monitoring</b></p> 	<p>Titrate preventive medications slowly to an effective or maximum tolerable dose and continued for at least 6-8 weeks to adequately assess effect. A headache diary may help evaluate response to treatment. Quality of life can be monitored using the <a href="#">HIT- 6 score</a>.</p> <p>Ensure there is no medication overuse – acute treatments should be limited to twice per week - otherwise preventive treatments are less effective and patients are at risk of medication overuse (medication induced) headache.</p> <p>Review the need for continuing migraine prophylaxis 6 months after the start of prophylactic treatment.</p>
<p><b>Secondary Care Referral Criteria</b></p> 	<p><b>Eligibility:</b></p> <ul style="list-style-type: none"> <li>• High frequency migraine persists despite trial of 2 to 3 migraine preventatives</li> <li>• Diagnosis of migraine not definite</li> <li>• Migraine with red flags (see above)</li> </ul> <p><b>Exclusions:</b></p> <ul style="list-style-type: none"> <li>• Less than two migraine preventatives tried</li> <li>• NICE guidelines (Headaches: Diagnosis and management of headaches in young people and adults – CG150) have not yet been followed</li> </ul>

	<p><b>Existing Management</b></p> <p>In the referral letter the previous preventive drugs used, the maximum doses reached, duration of treatment and reasons for stopping is very helpful.</p>
<b>Clinic Information</b>	<p>If a referral is required, please refer via eRS</p> <p><b>Specialty: Neurology</b>  <b>Clinic Type: General Neurology Clinic</b></p> <p><b><u>If there is concern regarding cancer, refer via the 2 week wait pathway.</u></b></p>
<b>Additional information</b>	<p><b><u>Migraine Pathway Flowchart</u> Page 6</b>  <b><u>Patient information</u> Page 7</b></p>
<b>References</b>	<p>NICE Guidance. Headaches: Diagnosis and management of headaches in young people and adults.  <a href="http://www.nice.org.uk/guidance/CG150">http://www.nice.org.uk/guidance/CG150</a></p> <p>BASH National headache management system for adults 2019 guidelines  <a href="http://www.bash.org.uk">NATIONAL Headache Management SYSTEM FOR Adults 2018 (bash.org.uk)</a></p> <p>Medicine manufacturer data sheets (information):  <a href="https://www.medicines.org.uk/emc">https://www.medicines.org.uk/emc</a></p> <p>National Neurosciences Advisory Group (NNAG) Clinical pathway for adults for headache &amp; facial pain 2023  <a href="http://www.nnag.org.uk/optimal-clinical-pathway-for-adults-with-headache-facial-pain">www.nnag.org.uk/optimal-clinical-pathway-for-adults-with-headache-facial-pain</a></p> <p>MHRA Drug Safety Update: <a href="#">Topiramate (Topamax): start of safety review triggered by a study reporting an increased risk of neurodevelopmental disabilities in children with prenatal exposure</a>. July 22</p>

## Version history

Produced by Dr Fiona McKeivitt, Consultant Neurologist, STH with Primary Care Sheffield CASES Neurology Team and STH Neurology Department.

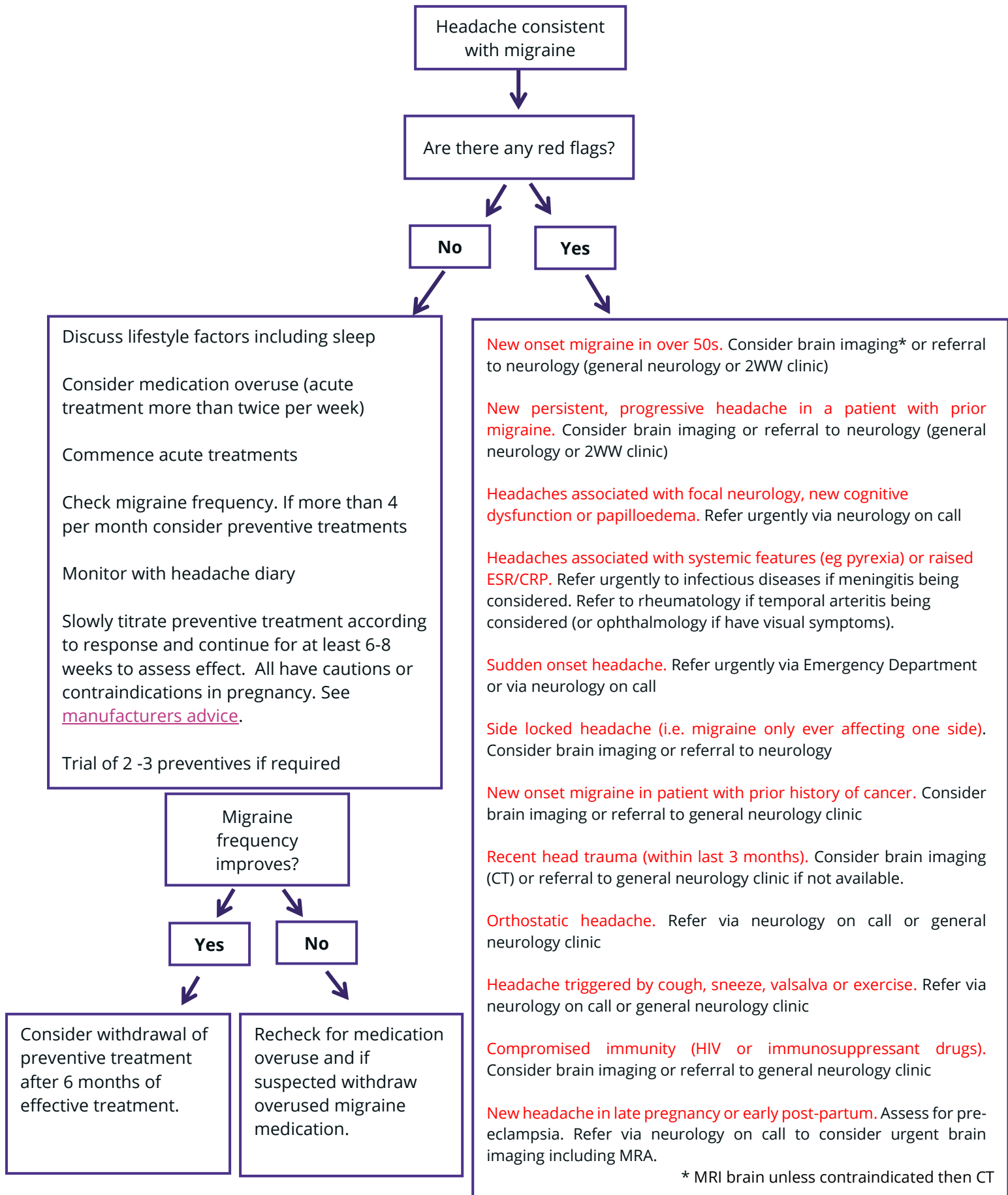
Endorsed by Formulary Sub-Group March 2023, Medicines Optimisation Team, Sheffield Place ICB and incorporating comments from the Clinical Reference Group and Area Prescribing Group June 2023.

Endorsed by Doncaster Place Medicines Optimisation Committee October 2023.

Endorsed by Barnsley Place Area Prescribing Committee March 2024.

# Migraine Pathway Flowchart

## Algorithm for migraine management in primary care



## Patient Information

### Headache Diary

[BASH-diary.pdf](#)

### Headache Impact Test

[HIT- 6 score](#)

This questionnaire helps the patient describe and communicate the way they feel and what they cannot do because of headaches.

### BASH Headache Information Sheet

[BASH-selfhelp.pdf](#)

### BASH Migraine Medication Patient Information Sheets

[Amitriptyline: BASH-amitrip.pdf](#)

[Candesartan: BASHCander.pdf](#)

[Propranolol: BASHProp.pdf](#)

[Topiramate: BASH-tpx.pdf](#)

[Triptans: BASH-triptans.pdf](#)

### Migraine Trust

<https://migrainetrust.org/>