MIGRAINE

Top tips for MURs

- Check patient understands why medication has been prescribed
- Advise patient to keep a headache diary for at least 8 weeks to identify potential triggers e.g. food, sleep and menstruation if female[1]. Migraine Action UK offer a free diary to download or apps are available for download (e.g. Migraine buddy)[2]
- Check that ladies with migraine and aura are not taking combined oral contraceptives
- Advise patients that triptans should be taken as soon as the pain develops (but not during an aura)[1]
- Advise patients that triptans should be tried in three separate attacks before deciding whether to stop therapy or switch to an alternative agent
- Advise on duration of treatment for antiemetics (metoclopramide should not be used for more than 5 days, domperidone for 7 days and prochlorperazine buccal for 2 days)[1,3]
- Refer any patients who may have 'Medication-overuse-headache' (MOH), for example patients taking simple analgesics on more than 15 days per month or taking triptans/codeine/ergot medications on more than 10 days a month[4]
- Consider the suitability of the preparation. Soluble formulations or melts, suppositories (e.g. diclofenac / domperidone), nasal sprays or buccal formulations may help if nausea and vomiting are present[1]
- Check that opioid analgesics or ergot alkaloids are not being used to treat migraine
- Advise that migraines are generally cyclical and therefore preventative treatment should be reviewed 6 months after starting treatment to assess whether it is still needed
- Advise that acupuncture may help as a second line prophylaxis – NICE recommends 10 sessions over 5-8 weeks
- Advise patients that riboflavin (400mg once a day) may reduce migraine intensity and frequency[1]
- Check for common contraindications or cautions (e.g asthma for NSAIDS, pregnancy for topiramate, underlying cardiac disease with domperidone, NSAIDs or triptans)
- Counsel patient on signs / symptoms that need referral and common side effects (**see overleaf**)
- Report any relevant adverse drug reactions to the Yellow Card Scheme

Pathophysiology of migraine

Migraine is a primary episodic headache disorder characterised by severe, often unilateral headaches and associated symptoms such as photophobia, phonophobia and nausea and vomiting[1]. The exact pathophysiological cause of migraines are unknown, but a genetic predisposition can make individuals more susceptible to environmental factors such as sleep and food, which manifests itself in headaches and associated sensory disturbances[5].

Lifestyle issues

- Counsel patient on reducing alcohol intake to within safe limits (up to 14 units a week, spread evenly over 3 or more days with several alcohol free days)
- Counsel patient on healthy eating, exercise & weight loss (if BMI > 25kg/m^2) – reduce saturated fat and salt intake, avoid salt substitutes, increase oily fish intake, reduce caffeine intake to no more than 5 cups a day and recommend 5 portions of fruit and vegetables a day. Regular exercise is recommended (30 minutes 3-5 times per week), however sudden vigorous exercise in individuals who do not normally exercise can trigger attacks
- Advise patients who smoke of the benefits of stopping smoking and how to access pharmacy smoking cessation services or Stop Smoking Wales
- Reduce stress if possible through behavioural changes and relaxation therapies e.g. yoga[5]
- Avoid any obvious dietary triggers e.g. cheese / chocolate or environmental triggers e.g. strong perfume (avoid 'blanket' avoidance of food groups unless under advice from a doctor or dietitian[4])
- Avoid dehydration by drinking water – 8 large glasses per day (2 litres) unless medically contraindicated
- Suggest eating regularly and avoid skipping meals. Include slow release carbohydrate foods and avoid eating sugary snacks
- If possible keep a constant sleep routine by going to bed and getting up at the same time each day
- Consider the use of a dental mouth plate (occlusal splint) if patient grinds their teeth
- Take regular breaks especially if working at a computer or screen[5]
- Wear sunglasses in bright sunlight[5]

Written by Rachel Clemo, December 2016.
Expert review: Gareth Tyrrell, Cwm Taff UHB, February 2017.

How do drugs used to treat or prevent migraines work?

NSAIDs/aspirin	Inhibit the enzyme cyclo-oxygenase, which is involved in the production of prostaglandins; reduces inflammation and has an analgesic effect.
paracetamol	Postural mechanisms of action include effects on central prostaglandin inhibition, peripheral bradykinins and serotonergic systems.
Triptans	Selectively inhibit 5-hydroxytryptamine receptors in the brain.
Antiemetics (prokinetics / prochlorperazine)	Prochlorperazine and domperidone act on the chemoreceptor trigger zone[6], prokinetics improve gastro-oesophageal sphincter function and accelerate gastric emptying.
Topiramate	Antagonise the effect of the excitatory neurotransmitter glutamate by modifying glutamate receptors.
Beta blockers	Block beta-adenoreceptors although mechanism of action is unclear in migraine.
Amitriptyline	Block the re-uptake of serotonin and nonadrenaline.[6]

Preventative treatment does not reduce migraine frequency.

What are the common side effects to look out for?

Drug	Common side effects	Recommendation
Analgesics (paracetamol, NSAIDS, aspirin)	Gastrointestinal intolerance: heartburn, nausea, diarrhoea Gastrointestinal bleeding	Take NSAIDS after food. Consider gastro-protection if persistent. Refer to prescriber if signs of gastrointestinal bleeding.
Triptans	'Triptan sensations' – e.g. warm-hot sensations, tightness tingling, feelings of heaviness or pressure in face or limbs	Advise these are normally mild and self-limiting, however patients with chest pain should be referred.
	Nausea, dizziness, dry mouth, drowsiness	Advise these medications may affect the performance of skilled tasks (e.g. driving).
Antiemetics	Parkinson-like symptoms (Extrapyrimidal) Domperidone: ventricular arrhythmias	Refer to prescriber (short term use recommended).
Topiramate	Gastrointestinal intolerance (pain, nausea, diarrhoea, constipation)	Refer to prescriber if troublesome.
	Depression, drowsiness	Refer to prescriber. Advise to avoid driving if experiencing drowsiness.
Beta-blockers	Cold extremities, hypotension, sleep disturbances	Refer to prescriber to review for possible medication switch.
Amitriptyline	Dry mouth, constipation, blurred vision, drowsiness	Advise newly prescribed patient that the side effects usually only last 3 weeks, if not tolerated refer to prescriber.

Potential serious drug interactions?

Migraine medication interact with many other medications such as: methotrexate, lithium, alcohol, antiepileptics and antivirals - **see BNF Appendix 1: Interactions for more details**

Red flags that need urgent referral:

- New onset headache after 50 years of age[7] or in a patient with cancer or HIV[4]
- Atypical aura (aura lasting longer than one hour or with muscle weakness)[7]
- Aura occurring for the first time in a patients taking combined oral contraceptives[4]
- Red eye or the presence of halos around lighting[4]
- Systemic symptoms (fever, malaise, weight loss)
- Persistent morning headache with nausea or thunderclap headache (intense onset of extreme severe headache)[4] or headache lasting for longer than 72 hours[7]
- Associated symptoms such as seizures, confusion, changes in consciousness, lack of co-ordination, scalp tenderness or jaw claudication[7]
- Symptoms of syncope/ arrhythmias with domperidone treatment

Where can you find more information? (references)

1. Clinical Knowledge Summary – Migraine (**http://www.cks.nice.org.uk**)
2. Migraine Action UK **http://www.migraine.org.uk/**
3. Summary of Product Characteristics (SPC) for Buccastem M
4. British Association for the Study of Headache (BASH) Guidelines for all healthcare professionals in the diagnosis and management of migraine, tension-type headache, cluster headache and medication-overuse headache (2010). **www.bash.org.uk**
5. The Migraine Trust **www.migrainetrust.org**
6. BNF sub-section 6.1 **www.bnf.org**
7. **www.patient.co.uk**

Written by Rachel Clemo, December 2016.
Expert review: Gareth Tyrrell, Cwm Taff UHB, February 2017.