Headache pathway (adults)

Patient presents with headache :
(1) is this a brand-new headache OR **worsening** of headaches
(2) How long have they had the headaches for
(3) Are headaches **Chronic** (>15 days/month for >3 months) or **Episodic** (< 15 days a month)
(4) Is the pain **Bilateral** (including if more severe on one side than other) or **strictly unilateral**

(1) Full history including analgesic use, hormonal medication, anticoagulation
(2) General and neurological examination including vision, visual fields to confrontation. Check optic discs (refer to optician if necessary)
(3) Blood pressure, temporal artery pulsations, pregnancy, body weight

Check for red flags

Red Flags

(1)Thunderclap headache-New very sudden onset, intense ''explosive" headache: *SAH, Arterial dissection* - refer to emergency department

(2)New headache with signs of CNS infection: *Meninigitis / encephalitis/ cerebral or epidural abscess*- refer to emergency department

(3)) New papilloedema and/or New onset persistent visual loss: *raised ICP/ vascular* - confirm via urgent optician/ emergency eye clinic /urgent care pathways/emergency department **(known stable papilloedema in chronic IIH, does not require urgent assessments or scans)**

(4) **New headache ONLY brought on by straining/ coughing/when recumbent: *Possible raised ICP*

(5) **New Headache ONLY occurring when upright; complete resolution and headache free on lying down: *low CSF pressure*

(6) **New headache with significant or prolonged motor weakness /progressive focal neurological deficit/unexplained personality or cognitive change: *SOL*

(7) New onset headache in elderly/ history of cancer / immunosuppression/ significant recent head or neck trauma/ pregnancy/peri-partum:** *SOL,venous thrombosis*

(8) New headache in age >50 with no past history of significant headaches –also check temporal artery pulsation, Jaw claudication, urgent ESR/ CRP : If high suspicion for temporal arteritis ,refer urgently as per local protocols & start steroids immediately

(9) New daily persistent headache (NDPH)–New headache that is continuous from onset, without other red flags AND remaining unchanged for more than 3 months despite following adequate preventative treatment as per this pathway**

(10) Unilateral painful red eye with halos in vision– *consider acute angle closure glaucoma*- urgent ophthalmology referral

(11) Refractory headache –Longstanding headache without response to 3 different adequate preventative treatments as per pathway and no red flags identified – see Page 3 of this pathway

Red flags identified

Choose as clinically appropriate:

(1) Red Flags marked with double asterisk **- request GP direct access MRI brain scan if not already scanned for these symptoms (CT brain in those who cannot have an MRI) *Does not need discussion with neurology prior to scan request. Urgency depends on rapidity of symptoms + clinical examination signs.*
Specify the following info on scan request form:

- Which red flag(s) identified
- ''As per C&M headache pathway''

(2)**Walton Centre advice line for specific diagnostic/management queries** : Weekdays 11.30-1.30 (07860 481429)

(3) **Refer to specialty/emergency care if indicated**

If no abnormality identified

No Red flags

Very likely to be migraine or another primary headache (not sinister-initiate management in primary care)

If there are no red flags - make the diagnosis of a primary headache disorder . Patients must maintain headache diaries to assess pattern and response to treatment https://rb.gy/gp4n7w **(click to print diaries). Give patient info leaflet** https://rb.gy/r6o3z4

(1)Any moderate to severe pain over the head face and neck which affects the patient's day to day functioning, in the absence of other signs or symptoms is likely to be migraine
(2) Migraine pain is mostly bilateral with pain felt more over one eye and can last from hours to 3 -4 days- severe attacks can take weeks to improve
(3)Most migraines are NOT associated with aura or vomiting. Patients report feeling queasy and physical activity worsens pain
(4)Pain over the face on its own, in the absence of other signs or symptoms is unlikely to be sinusitis and more likely a primary headache
(5) Chronic migraine pattern is continuous dull headaches interspersed with severe migraine attacks
(6)Medication overuse is defined as the use of any analgesic more than 3 days per week- and worsens migraine.
(7) Strictly unilateral headaches with autonomic symptoms and a stereotyped pattern occurring several times/ day can be cluster headaches or hemicrania (see page 2 for details)
(8)Trigeminal Neuralgia -Strictly unilateral sharp short lasting jabs of pain usually over the mid / lower face (see page 2 for details)
(8) Tension headaches are mild, bilateral, not bothersome headaches and do not cause other symptoms

REFER to PAGE 2 FOR DETAILED ADVICE ON DIAGNOSIS AND MANAGEMENT OF ALL PRIMARY HEADACHES

Diagnosis and management of primary headaches : Headache diaries: https://rb.gy/gp4n7w Patient info leaflet: https://rb.gy/r6o3z4

Migraine- episodic and chronic (Most common headache)

Recurrent attacks of:
Unilateral/bilateral headache, moderate to severe in intensity lasting from hours to a few days
Some (not all) of the following features:
Pulsating pain/Nausea/vomiting/ Photophobia or Phonophobia
No Red flags identified

Other features commonly associated with migraine are fatigue, dizziness, difficulties in word finding,attention & concentration, insomnia, tingling, visual blurring

Episodic migraine: less than 15 total headache days per month, of which 4 or more are severe
Chronic Migraine: 15 or more total headache days per month, at least 8 of which are severe

Acute pain relief in severe attacks must be taken early at onset of an attack;
Triptan, Aspirin, Paracetamol, NSAID- on their own OR combination of a triptan with ONE of NSAID//Aspirin/Paracetamol. Max 2 doses per attack. Not for tds/qds use..Max use of acute pain relief is 3 days per week
Consider Triptan options- oral, orodispersible, nasal, injection, different brands.
Oral absorption can be unreliable in acute migraine- hence use of antiemetics or injectable triptans are useful.
NO triptan to be taken DURING aura. Triptans can be used in pregnancy /breastfeeding
Codeine, opiates, sedatives should not be used in migraine treatment
If analgesics and at least 2 different triptan brands are not effective/tolerated or are contraindicated and if no headache red flags – consider Rimegepant
Rimegepant for acute pain relief.- see Rimegepant fact sheet
Prescribe 4 doses initially. To be taken singly at the onset of an attack . Continue if response to Rimegepant in 2 separate attacks.
If use of triptans/ NSAIDs is consistently more than 2-3 days / week
OR the use of Rimegepant is more than 10 times /month, start preventative (refer Page 3)
START PREVENTATIVES FOR ALL PERSISTENT/FREQUENT/CHRONIC MIGRAINE

Migraine with Aura

Aura occurs only in 1/3 of migraine patients
Symptoms of aura gradually develop over a few minutes to half an hour and can last for up to an hour

Usually visual-- can be speech/ motor/ sensory

Full recovery after attacks

Visual blurring & blackspots in vision are not diagnostic of aura

Medication overuse

Medication history is crucial especially OTC analgesia. Analgesic overuse worsens all headaches and can impede response to preventatives
- Overuse is - Triptans/opioids >10 days a month for >3 months
- Simple analgesics >15 days a month for >3 months
- Overuse is common in migraine and with coexisting pain conditions

Withdraw analgesics safely Opiates and codeine should be gradually withdrawn under supervision. Stop caffeine
- **Ibuprofen/naproxen max twice a day, upto 2 days per week**
- **Consider low dose amitryptiline 10-25 mg nocte (unlicensed)**

Manage underlying headache disorder with preventatives (see page 3)
Seek advice on any other pain conditions from relevant departments.

Tension type headache

Can be episodic or chronic
Chronic if >15 days per month **Featureless**, bilateral, mild or moderate intensity. Does not limit or impact daily activity

The dull headache in between migraine attacks is not tension headaches. That is part of chronic migraine

Simple analgesics but avoid medication overuse(see med overuse section)

- **Acupuncture- 10 sessions over 5-8 weeks if available**
- **Amitriptyline 10-25mg**

Cluster headaches (Management principles are different to migraine)

Strictly unilateral side locked headaches with prominent autonomic features
- Bouts last 4-12 weeks
- Usually 1-2 bouts per year
- Can be chronic and throughout year
- Attacks are stereotyped
- Attacks often at night & lasts 1-4 hours
- Restless, agitated
- Unilateral, periorbital severe pain
- Ipsilateral autonomic features like conjunctival injection, rhinorrhea, nasal congestion, ptosis, ear fullness, flushing
- Often triggered by alcohol

Acute attacks-Nasal or sc sumatriptan at onset of attack -3mg injection up to 4 doses per day OR 6mg injection up to 2 doses per day
- **100% oxygen** 15L per min using a demand valve where available

Termination of a cluster bout
- **Prednisolone –high dose at 60mg daily; reduce by 10mg every 3 days. With PPI gastric protection. Max 2 courses per year**

Prevention-Verapamil 40mg tds increased over 2 -3 weeks to 120mg tds for control of attacks (may need escalating to 240 mg tds)
ECG initially, then before each increase beyond 80 tds
- Melatonin on specialist advice
- Lithium- shared care protocol
- **Refer cluster to hospital for long-term management**

Other

Trigeminal neuralgia(TN)
- Strictly Unilateral paroxysmal jabs of pain over upper or lower jaw only
- Not continuous.
- Triggered- breeze, touch chewing, talking

SUNCT/SUNA
- Similar to TN but around the eye
- Autonomic ocular features

Ice pick/ Stabbing headaches
- Sudden brief head pains
- Various locations in scalp
- Commonly associated with migraine

Paroxysmal Hemicrania(PH)
- Unilateral periorbital
- Autonomic- red eye, lacrimation, nasal congestion, ptosis
- 15-30 mins; multiple/day

Hemicrania Continua (HC)
- Unilateral 'side locked' constant headache
- continuous> 3 month
- Autonomic features

TN: Carbamazepine 100-200mg daily then gradually increased till effect. Alternatives are Oxcarbazepine, Lamotrigine (unlicensed) or Gabapentin/Pregabalin
SUNCT/SUNA: Lamotrigine25 mg daily increased by 25 mg every 2 weeks to 150 mg BD (unlicensed).
Ice-pick/ PH/HC
Indomethacin 25-50mg tds (unlicensed) only with food. with PPI /gastric protection
Lamotrigine
Refer TN/PH/HC/SUNCT to hospital for long term management

MIGRAINE PREVENTION – REFER PAGE 3

Use of preventatives in migraine : Headache diaries: https://rb.gy/gp4n7w Patient info leaflet: https://rb.gy/r6o3z4

If Frequent Episodic OR Chronic migraine

Start preventatives if 4 or more migraine/headache days a month

Do not use codeine or opiates. NSAIDs and triptans maximum 2-3 times/week and only at onset of headache .Please see 'practical tips info box. Give patient information leaflet

Preventatives (with therapeutic dose range):

- Propranolol - 80-240mg daily: start at 20 mg and increase weekly by 20mg
- Candesartan - 8-16mg daily start at 4 mg and increase weekly by 4mg
- Amitriptyline - 10-75 mg (nortriptyline if better tolerated) start at 10 mg nocte and increase weekly by 10 mg

- ** Topiramate - (Only in women over 55 and all men . See adjacent caution~ for women under 55) 25mg od for 2 weeks; increase to 25mg bd 2 weeks; then to 50mg bd which can be increased further as required up to 100mg BD . Caution if history of mental health illness, glaucoma, renal stones
- **Valproate- (only in men and women over the age of 55. Specialist initiation followed by further px in primary care. See adjacent caution~ for all under 55)-400-1200 mg/day

Refractory Episodic or Chronic migraine are those who have not had improvement with at least 3 different classes of preventatives, used at therapeutic, maximum tolerated doses, for a minimum of 3 months each OR have had significant side effects/ contraindications to the listed preventatives AND medication and caffeine overuse have been eliminated

- Patients should maintain headache diaries https://rb.gy/gp4n7w
- Ensure no headache red flags

Rimegepant- as a preventative only for refractory episodic migraine- less than 15 headache days / month, of which 4 or more are migraines Please see Rimegepant information box + fact sheet

Atogepant- for refractory episodic migraine OR refractory chronic migraine- more then 4 migraine days/month

Please see Atogepant information box + fact sheet

Acupuncture if available

Cefaly device; Gammacore device

Practical Tips

Start preventatives at a low dose and increase the dose to get within therapeutic range which itself may take a month. Once on the best tolerated dose, continue for a minimum of 3-4 months

Assess response at 3-4 months based on headache diaries

If the medication is found to be effective it should be continued for a further 9-12 months

If the medication is not effective after using it at maximum tolerated dose for 3-4 months, it should be tapered off and the same strategy applied for the next preventative

Minimum of 3 preventatives should be used adequately as detailed above, before labelling as refractory/ considering referral

If the patient's symptoms remain well controlled after >1 year of preventative treatment, an attempt can be made to withdraw the medication at that stage. If symptoms recur, restart.

Many commonly reported minor side effects with medication - dizziness, drowsiness- etc are temporary and get better in 2-4 weeks. Very often those symptoms are because of migraine

Patient information leaflet : https://rb.gy/r6o3z4

Contraception -Women in the reproductive age group should be counselled on appropriate contraception

Pregnancy and Breastfeeding – No data for the safe use of preventatives. Propranolol, Amitriptyline can be used in 2nd trimester for a limited time. Get specialist advice as necessary.

GREEN- Can be initiated in primary care

AMBER- Hospital recommended/initiated and then prescribed in primary care

RED- Hospital only prescribing: Purple: shared care

Devices listed in blue have to be purchased by patients directly from supplier

If no significant or sustained response to at least 3 oral preventatives and 'gepants'-

Refer via ERMS to the Neurology department at The Walton Centre. Include headache diary information and dosage and duration of preventatives used: for advice/ appointment regards hospital initiated treatments.

CGRP monoclonal antibodies injections (Refractory episodic and chronic migraine) hospital treatment

Botulinum toxin injections (Refractory Chronic migraine only) hospital treatment

please note that there is likely to be a waiting time for appointments and then a further waiting list for hospital initiated injection treatments

RIMEGEPANT: (for further details see Rimegepant fact sheet) For Refractory Episodic migraine commence Rimegepant as preventative

- Rimegepant oral tablet 75mg every other day. Dose escalation to 75mg daily is NOT recommended

Patients must maintain headache diaries https://rb.gy/gp4n7w

Continue if headache severity/ frequency reduces by 50% at 12 weeks Rimegepant is licensed as both acute attack pain relief treatment (see page 2) as well as episodic migraine preventative treatment . It is not advisable to use Rimegepant for both indications in the same patient

ATOGEPANT: (for further details see Atogepant fact sheet) For Refractory Episodic migraine or Refractory Chronic migraine commence Atogepant as preventative

- Atogepant 60 mg taken orally once daily.Dose titration not required

Dose has to be modified to 10 mg daily if significant renal impairment or when used alongside strong CYP3A4 inhibitors and strong OATP inhibitors

Patients must maintain headache diaries https://rb.gy/gp4n7w

Continue if headache severity/ frequency reduces by 50% at 12 weeks for episodic migraine or by 30% at 12 weeks for chronic migraine

CAUTION:

~ Valproate medicines must NOT be used for migraine(and cluster) prevention in women under 55 years . Men under 55 will need specialist initiation .

~ Topiramate is contraindicated in pregnancy. In women under 55, specialist initiation under Pregnancy Prevention Programme with Annual Risk Assessment Form. Highly effective contraception is required prior to initiation and during treatment*. A negative pregnancy test is mandatory before starting treatment. Women and girls of childbearing potential must be advised and given the Topiramate Patient Guide about significant risk of birth defects and developmental and learning problems .Topiramate can impair the effectiveness of hormonal contraceptives.

*Acceptable contraception options include the coil (copper or Mirena), or the contraceptive injection plus condoms.

Abbreviations:
OTC– over the counter
COCP- combined oral contraceptive pill
SUNCT – shortlasting unilateral neuralgiform headache with conjunctival injection +tearing
SUNA - shortlasting unilateral neuralgiform headache with autonomic features
HC - hemicrania continua
SAH – subarachnoid haemorrhage
SOL- space occupying lesion
ICP – intracranial pressure
TN – trigeminal neuralgia
MOH –medication overuse headache
NDPH – new daily persistent headache

Gepants- Rimegepant and Atogepant
CGRP Mabs – Calcitonin gene related peptide monoclonal antibodies