Headache in Ambulatory Care Centre- Full Clinical Guideline

Reference no.: CG-NEURO/2016/002

1. Introduction

This is a guideline for assessing and treating patients presenting with headache in the ambulatory care setting.

Cases of headaches form a considerable portion of patients who require 0 to 1 day admissions within Acute Medicine Business Unit. These cases could often be managed within the Ambulatory Care Centre (ACC). Admissions are referred from the Emergency Department (ED) - or via Bed Bureau (BB) at Royal Derby Hospital.

All referrals from ED should be made to senior decision-maker (middle grade or above) in ACC and red-flag features (see box 1) should be highlighted at time of referral.

Whilst most headache cases are benign and can be discharged home after appropriate investigations and treatment, it is important to make sure that serious, potentially life-threatening cases are not missed.

2. Aim and Purpose

To offer guidance for clinical staff working in the ambulatory care setting treating adult patients presenting with headache admitted to Royal Derby Hospital.

Suspected meningitis is not managed in ACC. Guidance on management of suspected meningitis is not covered in this document and clinicians should refer to the guidance already in place elsewhere.

3. Definitions, Keywords

- ACC: Ambulatory Care Centre
- BB: Bed bureau service provided at Royal Derby Hospital
- CVST: Cerebral venous sinus thrombosis
- CSF: Cerebrospinal fluid
- ED: Emergency department
- GCA: Giant Cell Arteritis
- LP: Lumbar puncture
- Primary headache: Headache disorders validated within the ICHD-3 classification e.g.: migraines
- SAH: Sub-arachnoid haemorrhage
- Secondary headache: Headache that is precipitated by another condition or disorder
- SOL: Space-occupying lesion
- Thunderclap headache: headache reaching maximal intensity from onset within 5 minutes
- Trigeminal Autonomic Cephalalgias (TAC): group of primary headache disorders with prominent autonomic features, e.g.: cluster headaches

4. Exclusion Criteria for ACC

- EWS >4
- ED doctor suspects meningitis
- Not ambulant (i.e.: unable to get onto a trolley for LP)

- GCS less than 15

5. Guidelines

It is important to recognise red-flag symptoms to differentiate primary from secondary headache disorders, which may warrant brain imaging/further investigations (see box 1). Not all headaches require head imaging and/or lumbar puncture.

Box 1: Red flag features

- worsening headache with fever
- thunderclap headache
- new-onset neurological deficit
- new-onset cognitive dysfunction
- change in personality
- impaired level of consciousness
- recent (typically within the past 3 months) head trauma
- headache triggered by cough, valsalva (trying to breathe out with nose and mouth blocked) or sneeze
- headache triggered by exercise
- orthostatic headache (headache that changes with posture)
- symptoms suggestive of giant cell arteritis
    - jaw claudication, systemic features, age >50 years
- symptoms and signs of acute narrow angle glaucoma
    - unilateral painful red eye
- a substantial change in the characteristics of their headache

Timing is important:

- Sudden onset: Thunderclap is defined as headache reaching maximal intensity from onset within 5 minutes
- Recent onset and progressive: evolution of headache over days to weeks with associated systemic features +/- focal neurological deficits increases the probability of this being a secondary headache
- Recurrent episodic headache in isolation is more likely to be due to a primary headache disorder

Site of headache:

- Side locked unilateral headaches (i.e.: never bilateral) which are not secondary headaches (no red flags) could be migraine or trigeminal autonomic cephalalgias.

Features that do not help to differentiate between primary and secondary headaches are:

- Severity
- Treatment response
- Clinical characteristics

Thunderclap headache:

Subarachnoid haemorrhage (SAH) is the main condition that requires ruling out in patients presenting with thunderclap headache. Differentials include: cerebral venous thrombosis, intracranial hypotension

- These patients should be referred for CT brain imaging
- If CT brain is normal, and clinician feels it is appropriate, lumbar puncture should then be performed after at least 12 hours post onset
    - Opening pressure should be taken (to help with diagnosis of differential diagnoses) in lying down lateral position.
    - CSF should be sent for: Bottle 2 for Xanthochromia, Protein, Glucose; Bottles 1 and 3 for Microbiology.
    - Take extra care to protect bottle 2 CSF sample from sunlight to prevent degradation
    - Send a simultaneous blood glucose sample
- If CT brain and Lumbar puncture are both normal then SAH is safely excluded.

6. When to consider referrals

a. Neurology Hot clinic (to be seen within 1 week):

- Unexplained, unremitting headache
- New diagnosis Idiopathic Intracranial Hypertension
- First presentation of Trigeminal autonomic cephalalgia/Trigeminal Neuralgia
- Pregnant women with headache after excluding secondary headaches (CVST/Pre-eclampsia)

b. Admit for inpatient Neurology review (generally seen within 24 hours):

- Any patient with red flag features (excluding those going through other pathways as per point c), which require further investigations or management as an inpatient until Serious Secondary headaches are excluded.
- Any severe, unremitting Primary headache disorder if it cannot wait until next Hot clinic or Outpatient neurology review

c. Other urgent referral pathways:

- Confirmed SOL: refer to Neurosurgical team at Queen's Medical Centre (via www.referapatient.org)
- Confirmed intracranial bleed: as per SOL except intracerebral bleeds which should be referred to stroke team
- Suspected glaucoma: refer to primary care eye clinic/on-call ophthalmology via switchboard
- Probable GCA: refer to Rheumatology Acute clinic (see appropriate guidance)
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7. References

http://www.bash.org.uk/downloads/guidelines2019/01_BASHNationalHeadache_Management_SystemforAdults_2019_guideline_versi.pdf

https://www.nice.org.uk/guidance/cg150

http://internalmedicineteaching.org/pdfs/BMJ-thunderclap.pdf

https://ichd-3.org/wp-content/uploads/2018/01/The-International-Classification-of-Headache-Disorders-3rd-Edition-2018.pdf

8. Documentation Controls

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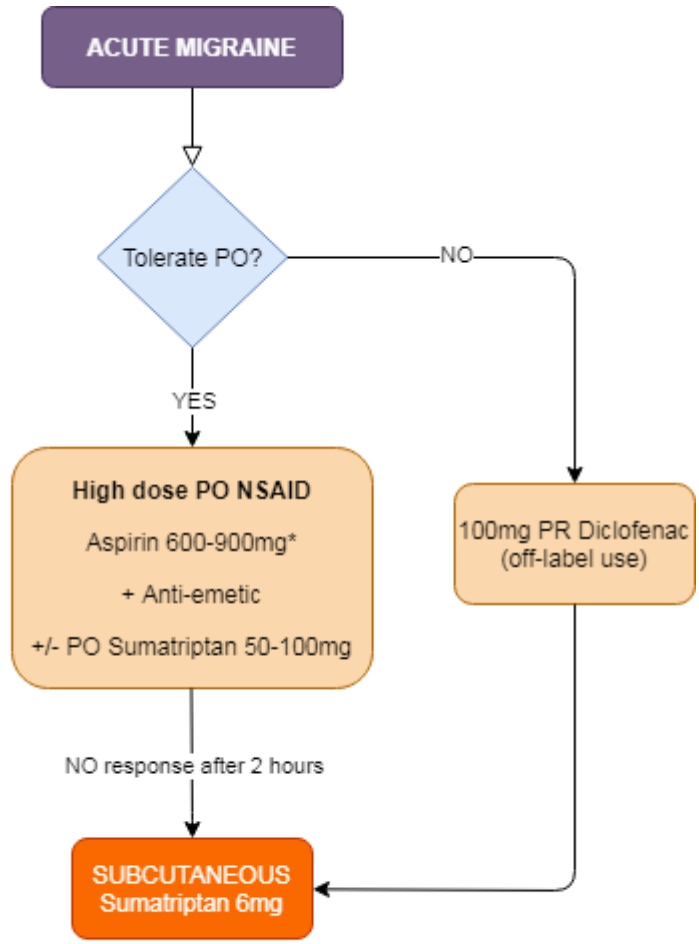
9. Appendices

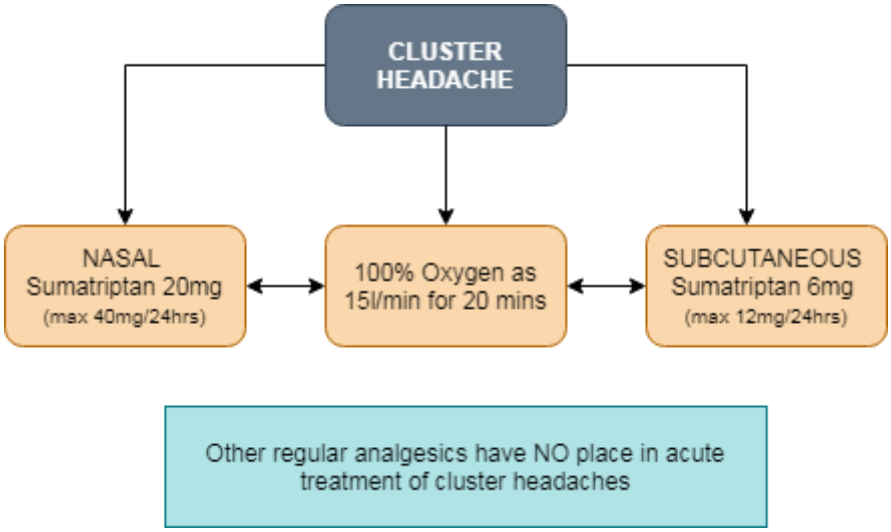
a. Table comparison between common primary headaches (adapted from BASH guidelines, based on www.ichd-3.org)

MIGRAINE	TENSION-TYPE HEADACHE	CLUSTER HEADACHE
Episodic		
Unilateral (although often bilateral)	Bilateral	Unilateral (never bilateral)
Pulsating	Pressing, tightening, non-pulsating	
Moderate or severe	Mild or moderate *but not disabling*	Very severe
Aggravated by, or causing avoidance of, routine physical activity	No aggravation by, or avoidance of, routine physical activity	Restlessness No aggravation by physical activity
Nausea and/or vomiting Photophobia Phonophobia	No nausea or vomiting, No more than one of photophobia or phonophobia	*Ipsilateral to pain, there may be:* Conjunctival injection Lacrimation Nasal congestion Rhinorrhoea Eyelid swelling/drooping
Attacks last hours to days (usually 4-72 hours)	Attacks last hours to days	Attacks last from 15 mins to 3 hours
Frequency up to 14 days per month		Frequency 1-3 attacks per day (up to 8) and usually occur daily for 2-3 months at a time
Chronic		
Chronic migraine or chronic tension-type headache: At least 15 headache days per month for >3 months with the above clinical description, in the absence of medication overuse		Chronic cluster headache: Attacks occurring for more than 1 year without remission, or remission periods lasting <1 month
Medication-overuse headache		
Ergotamine, triptans, or opioids taken on 10 or more days per month, or 15 days for simple analgesics, for >3 months. Chronic migraine is fulfilled 2 months after medication has been withdrawn without improvement		**No medication overuse headache** Medication-overuse headache only reported in patients with a predisposition to migraine and/or tension-type headache; clinical syndrome of the headache exacerbated by the acute-relief medication overuse is of the migraine and/or tension-type headache

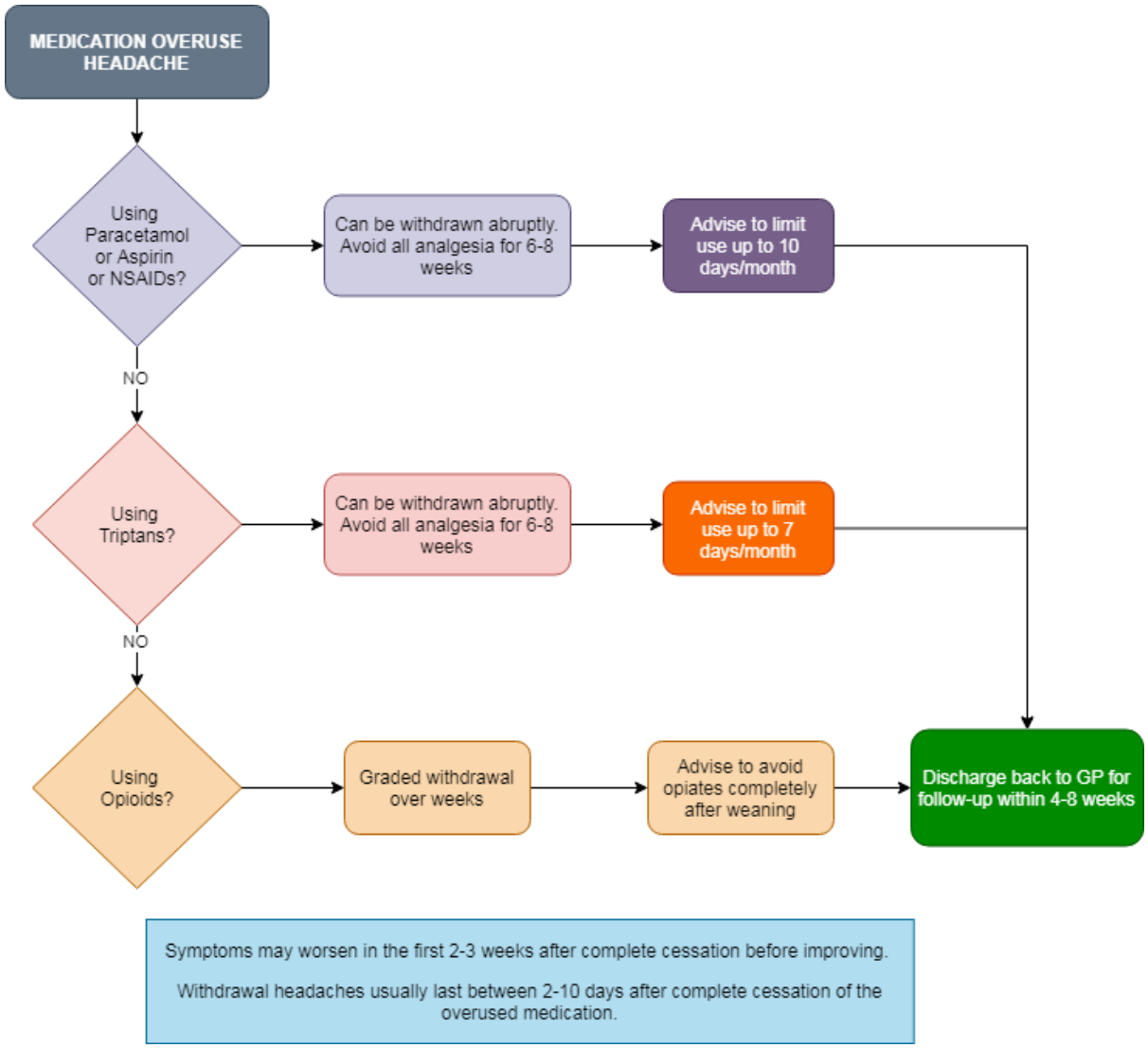
b. Flow diagrams for management of common headaches in ACC



*Max 4 doses/24 hrs
Add GI protection if patient considered to have high risk of GI bleed
If Aspirin contra-indicated: alternatives include Ibuprofen or Naproxen



Other regular analgesics have NO place in acute treatment of cluster headaches



Symptoms may worsen in the first 2-3 weeks after complete cessation before improving.

Withdrawal headaches usually last between 2-10 days after complete cessation of the overused medication.