LRI Emergency Department

# Acute headache

**Use in adults with a main presenting complaint of headache <2 weeks**

**DO NOT use if**

- **GCS <15**
- **T>37.9°C**
- **WCC >12**
- **New cognitive dysfunction**
- **New neurological deficits**
- **Haemodynamic instability**
- **Pregnancy at 20 weeks gestation or over, with known pre-eclampsia or ED BP >139/89**

**Disclaimer:**
This is a clinical template; clinicians should always use judgment when managing individual patients

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Version 66 . Trust Ref: C70/2015

Re-approved by EDGC (chair) on 16Feb22 . Review due May24

## Patient details

Full name

DoB

Unit number

*(use sticker if available)*

Obtain vital signs and bloods (including plasma viscosity and CRP if aged >50), and control symptoms

Is acute glaucoma suspected? (Y) → Urgent Ophthalmology review required

**Possible features include**
- Sudden ocular pain
- Seeing halos around lights
- Red eye
- Suddenly decreased vision
- Fixed, mid-dilated or oval pupil
- Nausea and vomiting

Did patient have TLOC? (Y)

Did headache peak within 1h? (N)

Eligible for SHED study; print off **recruitment pack** and follow the instructions

>2 identical episodes over >6 months, **OR** return after CT+LP already done for same headache episode? (Y)

SAH investigations needed (see boxes 1 & 2)? (Y) → CT head **ASAP** (ideally within 6h from the onset of headache; always within 1h of arrival) Continue to next box **while CT awaited**

Other imaging indications (see box 3)? (N)

CT head (**NB**: Keep in ED while report awaited)

Is CT normal? (N) → Involve ED senior and manage as appropriate

Giant cell arteritis (GCA) suspected (see box 4)? (Y) → Follow 'Temporal Arteritis – Suspected UHL Rheumatology Guideline'

Also known as temporal arteritis

Primary or medication overuse headache likely (see boxes 6 & 7 on reverse)? (N) → Manage as **nonspecific acute headache**

See boxes 6 & 7 for symptom control

Symptoms still disabling? (N)
- Discharge from ED
- Arrange neurology follow-up if needed (complete box 5)

Pain onset >48h ago, high SAH risk (see box 1), return patient or Hct <0.3? (N) → Admit on EDU SAH rule-out pathway

Admit to **AMU/AFU**

Admit on EDU headache pathway

DD/MM/YY — Date of headache onset

HH:MM — Time of headache onset

HH:MM — Time of CT head request

Interval between headache onset and CT request (record in hours if <48, otherwise record in days)

Patient managed by

Print name | Signature | Role

## ① SAH high-risk indicators?

☐ **Yes**, as at least one of the below

- TLOC (transient loss of consciousness) ☐
- Neck stiffness (defined as inability to touch chin to chest or, if supine, raise head 8cm off trolley or bed) ☐
- Diplopia ☐
- Seizure ☐
- Previous SAH ☐
- Family history of SAH ☐
- Known unruptured cerebral aneurysm ☐
- History of intracranial aneurysm in at least one 1st-degree relative ☐
- Autosomal dominant polycystic kidney disease ☐
- Ehlers-Danlos syndrome type IV ☐
- Fibromuscular dysplasia ☐
- Pseudoxanthoma elasticum ☐

☐ **No**, as none of the above

## ② Other SAH investigation criteria?

☐ **Yes**, as at least one of the below

- Aged 40 years or more ☐
- Therapeutic anticoagulation ☐
- Thunderclap headache (i.e. peaking within 5min) ☐
- C/O neck pain or stiffness ☐
- Headache onset during exertion ☐
- Known brain tumour ☐

☐ **No**, as none of the above

## ③ Other imaging indications?

☐ **Yes** - one or more of the below

*Suspected intracranial bleed*
- Therapeutic anticoagulation ☐
- Platelets <100 ☐
- Known coagulopathy ☐
- Re-attending ED after recent head injury (unless CT already done and normal) ☐

*Suspected intracranial malignancy*
- History of brain tumour ☐
- History of malignancy known to metastasise to the brain; i.e.
  - Breast ☐
  - Lung ☐
  - Kidney ☐
  - Thyroid ☐
  - Melanoma ☐
  - Hodgkin's lymphoma ☐
- History of malignancy **AND** aged <20 ☐
- Change in personality ☐
- Vomiting without obvious cause ☐

*Suspected raised intracranial pressure*
- Ventriculoperitoneal shunt ☐

☐ **No** - none of the above

## ④ Giant cell arteritis suspected?

***NB**: Applies only if patient aged >50 with new headache and raised CRP and/or PV*

☐ **Yes**, as at least one of the below

- Scalp tenderness ☐
- Transient visual symptoms ☐
- Unexplained facial pain ☐
- Jaw or tongue claudication ☐
- Abnormal temporal artery (i.e. tender, beaded, enlarged or with absent pulse) ☐

☐ **No**, as none of the above

## ⑤ Neurology follow-up needed?

☐ **Yes**, as at least one of the below

*Same-day neurology opinion*
- Orthostatic headache (= pain when upright that disappears rapidly on lying down) ☐
- 1st bout of cluster headache ☐

*Early neurology OPD follow-up*
- Pregnant patient requiring **either** treatment for cluster headache ☐ **or** prophylaxis for migraine ☐
- Patient on immunosuppressant drugs ☐
- HIV patient (**NB**: refer to **IDU** instead) ☐

*Neurology OPD follow-up for GP to consider*
- Pain triggered by cough, Valsalva or sneeze ☐
- Substantial change in characteristics of a patient's usual headache ☐

☐ **No**, as none of the above

## ⑥ Could patient have medication overuse headache?

*Consider this diagnosis if symptoms developed or worsened while patient was taking (tick as applicable):*

Triptans, opioids, ergots or combination analgesic drugs (e.g. co-codamol) on 10 days a month or more since at least 3 months ☐

Paracetamol, aspirin or an NSAID (in any combination) on 15 days a month or more since at least 3 months ☐

Control pain with PO paracetamol **AND** aspirin 900mg or another NSAID (if not contraindicated). **DO NOT** give any of the overused drugs.

## ⑦ Could patient have a primary headaches syndrome?

*Consider the clinical features below and tick a diagnosis (if applicable)*

***NB**: Primary headaches may be felt in head, face or neck. A certain minimum number of characteristic episodes, e.g. >9 for tension-type headache or >4 for migraine without aura, is required to confirm the diagnosis.*

*Medication overuse headache may make it difficult to diagnose any underlying primary headache.*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Location of pain** | Bilateral | | Unilateral or bilateral | | | Unilateral (around or above the eye and along the side of the head / face) | |
| **Quality** | Non-pulsating (pressing / tightening) | | Pulsating (throbbing or banging in young people aged 12-17 years) | | | Variable (can be sharp, boring, burning, throbbing or tightening) | |
| **Intensity** | Mild or moderate | | Moderate or severe | | | Severe or very severe | |
| **Duration** | 30 minutes – continuous | | *Adults*: 4–72 hours *Aged* 12-17: 1–72 hours | | | 15 – 180 minutes | |
| **Effect on activities** | Not aggravated by routine activities of daily living | | Aggravated by, or causes avoidance of, routine activities of daily living | | | Restlessness or agitation | |
| **Additional symptoms** | None | | Unusual sensitivity to light and / or sound or nausea and / or vomiting<br><br>**Aura symptoms** can occur with or without headache and:<br>• are fully reversible<br>• develop over at least 5min<br>• last 5 – 60min<br><br>**Typical** aura symptoms include<br>• visual symptoms such as flickering lights, spots or lines and / or partial loss of vision<br>• sensory symptoms such as numbness and / or pins and needles<br>• speech disturbance<br><br>**Atypical** aura symptoms include<br>• motor weakness<br>• double vision<br>• visual symptoms affecting only one eye<br>• poor balance<br>• decreased level of consciousness | | | On the same side as the headache:<br>• red and / or watery eye<br>• nasal congestion and / or runny nose<br>• swollen eyelid<br>• forehead and facial sweating<br>• constricted pupil and / or drooping eyelid | |
| **Frequency** | <15 days per month | ≥15 days per month for >3 months | ≥15 days per month for >3 months | <15 days per month | predominantly between 2 days before and 3 days after the start of period in at least 2 out of 3 consecutive cycles | during a bout, 1 every other day up to 8 per day with remission between bouts >1 month | during a bout, 1 every other day up to 8 per day with a continuous remission between bouts <1 month in a 12-month period |
| **Diagnosis** (tick as applicable) | *Episodic* tension-type headache ☐ | *Chronic* tension-type headache ☐ | *Chronic* migraine (+/- aura) ☐ | *Episodic* migraine (+/- aura) ☐ | *Menstrual* migraine (+/- aura) ☐ | *Episodic* cluster headache ☐ | *Chronic* cluster headache ☐ |
| | | Overlap is common. If in doubt, treat as migraine. | | | | | |
| **Control of acute symptoms** | Paracetamol **AND** aspirin 900mg or another NSAID PO (if not contraindicated).<br><br>**DO NOT** give opioids. | | Prochlorperazine 12.5mg IM or metoclopramide 10mg IV /IM (even if patient not feeling nauseous) **AND** paracetamol **AND** aspirin 900mg or another NSAID (if not contraindicated) **AND** sumatriptan 100mg PO (**NB**: if aged <18: zolmitriptan 5mg intranasally instead).<br><br>**DO NOT** give opioids. | | Same as for other migraine types, but GP may consider frovatriptan or zolmitriptan (both 2.5mg PO) if other triptans not effective | Oxygen 12-15L/min via non-rebreathing mask with reservoir bag **AND** zolmitriptan 5mg intranasally.<br><br>GP may consider sumatriptan 6mg SC if the above not effective.<br><br>**DO NOT** give opioids, paracetamol, aspirin or other NSAIDS, or oral triptans. | |

**NB:** These patients require referral to stroke team and neuroimaging unless the diagnosis has been firmly established previously

**Now return to front page**