Patient managed by

**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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**Patient details**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full name</td>
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<tr>
<td>DBI</td>
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<tr>
<td>Unit number</td>
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</tbody>
</table>

(use sticker if available)

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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 8 cm 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 5 min)
     - 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 metastasize 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?**
   - 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

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

Urgent ophthalmology review required

- Y Is acute glaucoma suspected?
  - N
  - Y
    - Did patient have TLOC?
      - N
        - Y
          - Did headache peak within 1h?
            - N
              - Y
                - >2 identical episodes over >6 months, OR return after CT+LP already done for same headache episodes?
                  - N
                    - Y
                      - CT head ASAP (ideally within 6h from the onset of headache; always within 1h or arrival)
                        - Move on to next box while CT awaited
                      - Y
                        - Other imaging indications (see box 3)?
                          - N
                            - Y
                              - CT head (NB: Keep in ED while report awaited)
                                - Is CT normal?
                                  - N
                                    - Y
                                      - GI in ED with non-specific acute headache
                                        - Manage as non-specific acute headache
                                          - Follow UHL ‘Guidelines for patients with suspected temporal arteritis’
                                          - Giant cell arteritis (GCA) suspected (see box 4)?
                                            - N
                                              - Y
                                                - Pain onset >48h ago, high SAH risk (see box 1), return patient or Hct <0.3?
                                                  - Y
                                                    - Refer to AMC if available, otherwise admit to RAU
                                                      - Admit on EDU headache pathway
                                                    - N
                                                      - See boxes 6 & 7 for symptom control
                                                        - Symptoms still disabling?
                                                          - N
                                                            - Y
                                                              - Discharge from ED
                                                                - Arrange neurology follow-up if needed (complete box 5)
                                                                  - Refer back to EDU

- N

Created by Martin Wiese

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Print name | Signature | Role
### 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.

### 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.

<table>
<thead>
<tr>
<th>Location of pain</th>
<th>Bilateral</th>
<th>Unilateral or bilateral</th>
<th>Unilateral (around or above the eye and along the side of the head / face)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>Non-pulsating (pressing / tightening)</td>
<td>Pulsating (throbbing or banging in young people aged 12-17 years)</td>
<td>Variable (can be sharp, boring, burning, throbbing or tightening)</td>
</tr>
<tr>
<td>Intensity</td>
<td>Mild or moderate</td>
<td>Moderate or severe</td>
<td>Severe or very severe</td>
</tr>
<tr>
<td>Duration</td>
<td>30 minutes – continuous</td>
<td>Adults: 4–72 hours Aged 12-17: 1–72 hours</td>
<td>15 – 180 minutes</td>
</tr>
<tr>
<td>Effect on activities</td>
<td>Not aggravated by routine activities of daily living</td>
<td>Aggravated by, or causes avoidance of, routine activities of daily living</td>
<td>Restlessness or agitation</td>
</tr>
<tr>
<td>Additional symptoms</td>
<td>None</td>
<td>Unusual sensitivity to light and / or sound or nausea and / or vomiting</td>
<td>On the same side as the headache: red and / or watery eye, nasal congestion and / or runny nose, swollen eyelid, forehead and facial sweating, constricted pupil and / or drooping eyelid</td>
</tr>
</tbody>
</table>

**Aura symptoms**
can occur with or without headache and:
- are fully reversible
- develop over at least 5min
- last 5 – 60min

**Typical aura symptoms include**
- visual symptoms such as flickering lights, spots or lines and / or partial loss of vision
- sensory symptoms such as numbness and / or pins and needles
- speech disturbance

**Atypical aura symptoms include**
- motor weakness
- double vision
- visual symptoms affecting only one eye
- poor balance
- decreased level of consciousness

**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).
- 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).
- 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.
- GP may consider sumatriptan 6mg SC if the above not effective.

**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.