Headache & Migraine

Exclude the dangerous, then treat the disabling · Most headache is primary, but the history is what proves it

SNNOOP10
red flags for secondary headache

SCREEN FOR SECONDARY HEADACHE *SNNOOP10 — any one flag changes the workup*

SYSTEMIC & NEURO

Systemic symptoms including **fever** or weight loss · **N**eoplasm in the history · **N**eurological deficit or reduced consciousness · **O**nset that is **sudden and thunderclap** · **O**lder age, new headache **over 50**.

THE TEN Ps

Pattern change or a genuinely new headache · **P**ositional · **P**recipitated by cough, sneeze or exertion · **P**apilledema · **P**rogressive or atypical · **P**regnancy or puerperium · **P**ainful eye with autonomic features · **P**ost-traumatic · **P**athology of immunity such as HIV · **P**ainkiller overuse.

WHAT EACH SUGGESTS

Fever with neck stiffness → meningitis. **Over 50 with jaw claudication and scalp tenderness** → **giant cell arteritis: start steroid before the biopsy**, since sight loss is irreversible. **Worse lying flat with papilledema** → raised pressure or a mass. **Worse standing** → low pressure. **Pregnancy or puerperium** → cerebral venous thrombosis and pre-eclampsia.

THUNDERCLAP HEADACHE *maximal within a minute — a distinct pathway*

1. **Non-contrast CT head urgently.** Performed and reported **within 6 hours of onset in a neurologically intact patient**, it is close to definitive for subarachnoid hemorrhage. **Its sensitivity falls steadily after that**, so the timing of the scan relative to onset is what determines what you do next.
2. **If the CT is negative and beyond that window, proceed to lumbar puncture at 12 hours or more from onset**, looking for **xanthochromia** — the delay is needed for hemoglobin to break down, which is what distinguishes true bleeding from a traumatic tap. **CT angiography is the alternative pathway** where locally agreed.
3. **Do not stop at subarachnoid hemorrhage.** Consider **cervical artery dissection** (neck pain, Horner's, recent neck trauma or manipulation), **cerebral venous sinus thrombosis** (pregnancy, puerperium, thrombophilia, estrogen), **pituitary apoplexy** (visual field loss, ophthalmoplegia), and **reversible cerebral vasoconstriction syndrome** (recurrent thunderclaps, often triggered by exertion, sex or vasoactive drugs).
4. **Fever, headache and confusion means empirical treatment before imaging results.** Give **antibiotics and aciclovir** and do not let the scan delay them.

IDENTIFY THE PRIMARY HEADACHE *three patterns cover most of it*

Type	Pattern and the point that matters
Migraine	**4 to 72 hours**, typically **unilateral, pulsating, moderate to severe, worsened by routine activity**, with **nausea and photophobia or phonophobia**. **The patient wants to lie still in the dark.** Aura is usually visual, **evolves over 5 to 60 minutes** and precedes the headache. **Sudden-onset or fixed-side aura is not typical** and warrants imaging.
Tension-type	**Bilateral, pressing or tightening, mild to moderate, not aggravated by activity**, without significant nausea. The patient can usually carry on. Often coexists with migraine, and treating only the tension headache leaves the disability untouched.
Cluster	**Strictly unilateral, orbital or temporal, excruciating, 15 to 180 minutes**, in bouts of up to eight a day, with **ipsilateral autonomic features** — lacrimation, rhinorrhea, ptosis, miosis. **The patient is restless and paces**, in contrast to migraine. **Acute treatment is high-flow oxygen and subcutaneous sumatriptan; verapamil is the preventive**, with ECG monitoring for heart block.
Medication overuse	Suspect when headache is present on **15 or more days a month** in someone taking **simple analgesics on 15 or more days, or triptans, combination analgesics or opioids on 10 or more days**, for over 3 months. **The treatment is withdrawal plus a preventive**, and it is a leading cause of apparently refractory headache.

TREAT THE ATTACK *early, adequately dosed, and never with opioids*

Step	Detail
Take it early	**Efficacy falls sharply once the headache is established.** Underdosing and delay are the commonest reasons a treatment appears to fail.
First line	**A full-dose NSAID or high-dose aspirin**, with an **antiemetic such as metoclopramide or prochlorperazine** — which treats the headache itself as well as the nausea, and overcomes the **gastric stasis** that blocks absorption of everything else.
Triptans	Add or substitute if simple analgesia is insufficient. **Use a non-oral route when vomiting** — subcutaneous or nasal. **Avoid in ischemic heart disease, prior stroke, uncontrolled hypertension and in hemiplegic or brainstem-aura migraine. Failure of one triptan does not predict failure of another.**
Gepants and ditans	**Ubrogepant and rimegepant (CGRP receptor antagonists) and lasmiditan (a 5-HT$_{1F}$ agonist) do not cause vasoconstriction**, which makes them options where triptans are contraindicated or ineffective. **Lasmiditan causes sedation and carries a driving restriction after dosing.**
Avoid	**Opioids and butalbital-containing combinations.** They work poorly, promote medication overuse headache and chronification, and interfere with subsequent treatment. For **status migrainosus beyond 72 hours**: fluids, a parenteral antiemetic, a parenteral NSAID, and **dexamethasone to reduce early recurrence**.

PREVENT THE NEXT ONE *offer it early — most people who need it are not on it*

WHO AND HOW

Offer prevention at roughly four or more headache days a month, or fewer if attacks are disabling or acute treatment is failing. **Give any preventive a fair trial at a therapeutic dose for 8 to 12 weeks before calling it a failure**, and use a **headache diary** to judge the response rather than recollection. Address **sleep, hydration, caffeine, alcohol, stress and skipped meals**, and treat any coexisting depression or anxiety.

THE OPTIONS

Established oral agents: propranolol, candesartan, amitriptyline and topiramate. **Topiramate is teratogenic and reduces the efficacy of hormonal contraception; sodium valproate must not be used in anyone who could become pregnant. CGRP-targeted therapies** — the monoclonal antibodies and the oral gepants atogepant and rimegepant — are now supported as a **first-line preventive option rather than only after older drugs fail**. **OnabotulinumtoxinA** is for chronic migraine of 15 or more headache days a month.

PEARLS & PITFALLS

- **Ask when the headache peaked.** Maximal within a minute is thunderclap and buys a different pathway regardless of how well the patient now looks.
- **New headache over 50 needs an ESR or CRP** — start steroid immediately if giant cell arteritis is suspected.
- **Count the analgesic days.** Medication overuse is the commonest reason a chronic headache will not settle.
- **Add an antiemetic** — gastric stasis in migraine blocks absorption of the drug you just gave.
- **One failed triptan is not triptan failure.** Switch agent, switch route, and dose earlier before abandoning the class.
- **Do not prescribe opioids for migraine.** They worsen the long-term course and drive chronification.

References: International Classification of Headache Disorders, 3rd edition · SNNOOP10 red-flag list for secondary headache · American Headache Society 2024 position statement on CGRP-targeting preventive therapies · national guidance on the diagnosis and management of headache in adults.

Educational aid; verify against local neurology protocol, cardiovascular contraindications and pregnancy status.

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