Management of headache

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Based on

European principles of management of common headache disorders

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Lifting The Burden: the Global Campaign to Reduce the Burden of Headache Worldwide
The common headache disorders

- **Migraine**
  - usually episodic

- **Tension-type headache**
  - usually episodic (frequent in 10%), but chronic in 2-3%

- **Cluster headache**
  - episodic or less commonly chronic

- **Medication-overuse headache**
  - chronic and daily, a complication of treatment of migraine or TTH
General principles of headache management

Reassurance and explanation
- relieve fear of underlying disease
- improves adherence to treatments

Trigger factors
- especially in migraine, are over-emphasised
- even when identified, may not be avoidable
- the *only* proven dietary triggers are alcohol and monosodium glutamate

Follow-up
- the key to ensuring best outcome
Medical management of acute migraine

With a range of effective drugs, all patients should climb a treatment ladder (stepped management)

- usually treat three attacks at each step before proceeding to the next
- if followed correctly, this reliably achieves the most effective and cost-effective individualised care
Step one: symptomatic therapy

• Simple analgesic
  – acetylsalicylic acid 900-1000mg (adults only) or
  – ibuprofen 400-800mg or
  – diclofenac 50-100mg or
  – ketoprofen 100mg or
  – naproxen 500-1000mg

• Antiemetic (if needed)
  – domperidone 20mg or
  – metoclopramide 10mg
Principles of step one

- Use soluble analgesics, in adequate dosage, taken early in the attack

- Consider rectal administration if vomiting
  - analgesic suppositories
    (diclofenac 100mg, ibuprofen 400mg, ketoprofen 100-200mg or naproxen 500-1000mg)
  - antiemetic suppositories
    (domperidone 30mg or metoclopramide 20mg)

- Regular over-frequent use (>15 days/month) risks medication-overuse headache
Step two: specific therapy

• Oral solid tablets:
  – almotriptan 12.5mg, eletriptan 20mg, 40mg, frovatriptan 2.5mg, naratriptan 2.5mg, rizatriptan 10mg (5mg for use with propranolol), sumatriptan 25mg, 50mg, 100mg, zolmitriptan 2.5mg, 5mg
  – ergotamine tartrate 1mg, 2mg

• Mouth-dispersible forms:
  – rizatriptan 10mg, sumatriptan 50mg, 100mg, zolmitriptan 2.5mg, 5mg
Step two: specific therapy

non-oral formulations:

• suppositories:
  – sumatriptan 25mg
  – ergotamine tartrate 2mg

• nasal spray:
  – sumatriptan 10mg (for adolescents), 20mg, zolmitriptan 2.5mg, 5mg

• subcutaneous injection:
  – sumatriptan 6mg
Principles of step two

• Observe contra-indications to ergots and triptans
• Ergotamine has low efficacy and poor tolerability
• Triptans differ slightly, but patients vary; one triptan may work when another has not, so patients should try several, and choose
• Triptans work better when headache is mild
• Relapse affects up to 40% of responders
• Regular over-frequent use (>10 days/month) risks medication-overuse headache
Step three

Steps one and two combined:

- symptomatic therapy (analgesic plus antiemetic) plus
- best choice of triptan
Prophylactic management of migraine

Indications for *adding* prophylaxis:

- attacks cause disability on $\geq 2$ days/month, *and*
- optimised acute therapy does not prevent this, *and*
- the patient is willing to take daily medication

Other indications:

- risk of over-frequent use of acute therapy, even when it is effective
- in children with frequent absences from school
Prophylactic drugs with good evidence of efficacy

- Beta-adrenergic blockers without partial agonism:
  - atenolol 25-100mg bd
  - bisoprolol 5-10mg od
  - metoprolol 50-100mg bd
  - propranolol LA 80mg od-160mg bd
- Topiramate 25mg od-50mg bd
- Sodium valproate 600-1500mg daily
- Flunarizine 5-10mg od
- Amitriptyline 10-100 mg nocte
Principles of prophylaxis of migraine

- Co-morbidities and contraindications guide choice
- Poor compliance is a major hindrance to efficacy (once-daily dosing is better for compliance)
- Drugs that appear ineffective should not be discontinued too soon (not <2-3 months)
- Failure of one drug does not predict failure of others in a different class
- Consider withdrawal after 4-6 months of good control
- If prophylaxis fails, review the diagnosis, review compliance, review other medication
Principles of management of tension-type headache

• Acute therapy for episodic TTH on ≤2 days/week, using OTC analgesics:
  – acetylsalicylic acid 600-1000mg (adults only)
  – ibuprofen 400-800mg
  – paracetamol 1000mg is less effective
  – opioids and barbiturates have no place

• As headache frequency increases, so does the risk of medication overuse

• Episodic TTH on >2 days/week and chronic TTH are indications for prophylaxis in place of acute medication
Prophylactic management of tension-type headache

*Not* a wide range of drugs to choose from:

- amitriptyline, 10-100mg at night, is the drug of choice for frequent episodic or chronic TTH
- nortriptyline causes fewer anticholinergic side-effects but has less good evidence of efficacy
Principles of prophylaxis of tension-type headache

- Dose low at start (10mg) and increase slowly
- Prophylaxis that appears ineffective should not be discontinued too soon (not <2-3 months)
- Consider withdrawal after 6 months of good control, but prolonged treatment is sometimes indicated
- If prophylaxis fails, review the diagnosis, review compliance, review other medication
Medical management of cluster headache

• The objective in both episodic and chronic cluster headache is total attack suppression *but*

• This is not always achievable

• Both acute medication and prophylaxis have a role in management, but preventative drugs are the mainstay of treatment

• Analgesics, including opioids, have no place in treating cluster headache
Acute therapies for cluster headache

• **Sumatriptan s/c 6mg**
  – the *only* proven highly-effective acute treatment, *but*
  – not recommended for use > twice a day

• **Oxygen** 100% at ≥7 l/min for up to 15 min
  – helps some people and may be used as frequently as needed, *but*
  – requires a non-rebreathing mask and regulator
Prophylactic drugs used in cluster headache

- Verapamil 240-960mg daily (monitor ECG)
- Prednisolone 60-80mg daily for 2-4 days, then reduced over 2-3 weeks (may need repeating because of relapse during dose reduction)
- Lithium carbonate 600-1600mg daily (monitor blood levels)
- Ergotamine tartrate rectally, 2-4mg daily (usually omitted every 7th day)
- Methysergide 1-2mg tds (interrupt for 1 month in every 6 months)
Principles of prophylaxis of cluster headache

- Balance efficacy against toxicity
- Begin prophylaxis as early as possible after the start of a new cluster bout
- Except for prednisolone, which is used in short courses only, discontinue by tapering 2 weeks after full remission
- Failure of one drug does not predict failure of others
- Combinations may be tried, but the potential for toxicity is high
Management of medication-overuse headache

- Prevention of MOH is better than cure
- Once MOH has developed, early intervention is important: long-term prognosis depends on the duration of medication overuse
- The only effective treatment is withdrawal of the overused medication(s)
  - most successfully done abruptly
  - hospitalisation is rarely necessary
  - initial worsening headache is followed after 1-2 weeks by slow improvement
Always follow-up

- After 2-3 weeks to ensure withdrawal has been achieved

- Later:
  - improvement continues over weeks to months
  - most patients revert to their original headache type within 2 months; this will need review and management

- In many cases, extended support is needed:
  - relapse rate is ~ 40% within 5 years
The End!