Toward Optimized Practice

Quick Reference: GUIDELINE FOR PRIMARY CARE MANAGEMENT OF HEADACHE IN ADULTS

September 2016

Red flags:

Emergent (address immediately)
- Thunderclap onset
- Fever and meningismus
- Papilloedema (+focal signs or reduced LOC*)
- Acute glaucoma

Urgent (address hours to days)
- Temporal arteritis
- Papilloedema (NO focal signs or reduced LOC*)
- Relevant systemic illness
- Elderly: new headache with cognitive change

Possible indicators of secondary headache:
- Unexplained focal signs
- Atypical headaches
- Unusual headache precipitants
- Onset after age 50
- Aggravation by neck movement; abnormal neck exam. Consider **cervicogenic headache**.
- Jaw symptoms; abnormal jaw exam. Consider **temporomandibular disorder**.

Yes → **Refer and/or investigate**

No

Headache with 2 or more of:
- Nausea
- Light sensitivity
- Interference with activities

Practice points:
- **Migraine historically under diagnosed**
- **Consider migraine diagnosis for recurring "sinus" headache**

Migraine → Yes

Medication overuse:

Assess
- Ergots, triptans, combination analgesics or codeine/other opioids ≥ 10 days a month
  OR
- Acetaminophen or NSAIDs ≥ 15 days a month

Manage
- Educate patient
- Consider prophylactic medication
- Provide an effective acute med for severe attacks with limitations on frequency of use
- Gradual withdrawal if opioid, or combination analgesic with opioid or barbiturate
- Abrupt (or gradual) withdrawal if acetaminophen, NSAIDs, or triptan

Migraine
- Acute medication (Table 1)
- Monitor for medication overuse
- Prophylactic medication (Table 1), if headache:
  > 3 days/month and acute meds not effective
  OR
  > 8 days/month (risk of overuse)
  OR
  Disability despite acute meds

Behavioural management
- **Headache diary:** record frequency, intensity, triggers and medication
- **Adjust lifestyle factors:** reduce caffeine, ensure regular exercise, avoid irregular and/or inadequate sleep or meals

Stress management: relaxation training, CBT*, pacing activity, biofeedback

No

Headache w/o nausea and 2 or more of:
- Bilateral headache
- Non-pulsating pain
- Mild to moderate pain
- Not worsened by activity

Tension-type Headache → Yes

Tension-type headache
- Acute medication (Table 2)
- Monitor for medication overuse
- Prophylactic medication if disability despite acute meds (Table 2)

No

Uncommon headache syndromes

All of:
- Frequent headache
- Severe
- Brief < 3 hours per attack
- Unilateral (always same side)
- Ipsilateral eye redness, tearing and/or restlessness during attacks

Yes → **Cluster headache or another trigeminal autonomic cephalalgia**
- Management primarily pharmacological
- Acute medication (Table 3)
- Prophylactic medication (Table 3)
- **Early specialist referral recommended**

All of:
- Unilateral headache (always same side)
- Continuous
- Dramatically responsive to indomethacin

Yes → **Hemicrania continua**
- **Specialist referral**

Headache continuous since onset

Yes → **New daily persistent headache**
- **Specialist referral**

*LOC - loss of consciousness
*CBT - cognitive behavioural therapy

The above recommendations are systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances. They should be used as an adjunct to sound clinical decision making.

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Quick Reference: MEDICATIONS RECOMMENDED FOR HEADACHE MANAGEMENT IN ADULTS

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Refer to full guideline for migraine treatment in pregnancy and lactation

Table 1: Migraine

Acute Migraine Medication	
1st line	ibuprofen 400 mg, ASA 1,000 mg, naproxen sodium 550 mg, acetaminophen 1,000 mg, diclofenac 50 mg
2nd line	Triptans: oral sumatriptan 100 mg, rizatriptan 10 mg, almotriptan 12.5 mg, zolmitriptan 2.5 mg eletriptan 40 mg, frovatriptan 2.5 mg, naratriptan 2.5 mg ▪ Subcutaneous sumatriptan 6 mg if vomiting early in the attack. Consider for attacks resistant to oral triptans. ▪ Oral wafer: rizatriptan 10 mg, zolmitriptan 2.5 mg, if fluid ingestion worsens nausea ▪ Nasal spray: zolmitriptan 5 mg, sumatriptan 20 mg, if nausea Antiemetics: domperidone 10 mg, metoclopramide 10 mg, for nausea
3rd line	550 mg naproxen sodium in combination with triptan
4th line	Fixed-dose combination analgesics (with codeine if necessary - not recommended for routine use)

Prophylactic Migraine Medication		Starting Dose	*Titration: Daily Dose Increase	Target Dose / Therapeutic Range	Notes
1st line	propranolol	20 mg bid	40 mg/week	40-120 mg bid	Avoid in asthma
	metoprolol	50 mg bid	50 mg/week	50-100 mg bid	
	nadolol	20-40 mg once daily	20 mg/week	80-160 mg daily	
	amitriptyline	10 mg hs	10 mg/week	10-100 mg hs	Consider if depression, anxiety, insomnia or tension-type headache
	nortriptyline	10 mg hs	10 mg week	10-100 mg hs	
2nd line	topiramate	25 mg once daily	25 mg/week	50 mg bid	Consider 1st line if overweight
	candesartan	8 mg once daily	8 mg/week	16 mg once daily	Few side effects; avoid in pregnancy or when pregnancy is planned
	lisinopril	10 mg once daily	10 mg/week	20 mg once daily	More side effects than candesartan; avoid in pregnancy or when pregnancy is planned
Other	divalproex sodium	250 mg once daily	250 mg/week	750-1,500 mg daily, divided bid	Avoid in pregnancy or when pregnancy is planned
	pizotifen	0.5 mg daily	0.5 mg/week	1-2 mg bid	Monitor for somnolence and weight gain
	OnabotulinumtoxinA	155-195 units	No titration needed	155-195 units every 3 months	For chronic migraine only – headache on ≥15 days per month
	flunarizine	5-10 mg hs		10 mg hs	Avoid in depression
	venlafaxine	37.5 mg once daily	37.5 mg/week	150 mg once daily	Consider in migraine with depression and/or anxiety
Over the Counter	magnesium citrate	300 mg bid	No titration needed	300 mg bid	Efficacy may be limited; few side effects
	riboflavin	400 mg daily		400 mg daily	
	co-enzyme Q10	100 mg tid		100 mg tid	

*Titration: Dosage may be increased every two weeks to avoid side effects

- For most drugs, slowly increase to target dose
- Therapeutic trial requires several months
- Expected outcome is reduction, not elimination of attacks
- If target dose not tolerated, try lower dose
- If med effective and tolerated, continue for at least six months
- If several preventive drugs fail, consider specialist referral

Table 2: Tension-Type Headache

Acute Medication
▪ ibuprofen 400 mg ▪ ASA 1,000 mg ▪ naproxen sodium 550 mg • acetaminophen 1,000 mg

Prophylactic Medication	
1st line	amitriptyline 10-100 mg hs *OR* nortriptyline 10-100 mg hs
2nd line	mirtazapine 30 mg hs *OR* venlafaxine 150 mg once daily

Table 3: Cluster Headache (consider early specialist referral)

Acute Medication
▪ subcutaneous sumatriptan 6 mg ▪ intranasal zolmitriptan 5 mg or sumitriptan 20 mg *OR* 100% oxygen at 12 litres/minute for 15 minutes through non-rebreathing mask

*Prophylactic Medication	
1st line	verapamil 240-480 mg per day (higher doses may be required)
2nd line	lithium 900-1,200 mg per day
Other	topiramate 100-200 mg per day *OR* melatonin up to 10 mg hs

*Note: If more than two attacks per day, consider transitional therapy while verapamil is built up (e.g., prednisone 60 mg for five days, then reduced by 10 mg every two days until discontinued, or occipital nerve blockage with steroids by trained physicians).

Abbreviations: **hs** – at bedtime; **bid** – twice a day; **tid** – three times a day

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KEY MESSAGES*

DIAGNOSIS AND IMAGING

- Rule out secondary headache when making a diagnosis of a primary headache disorder.
- Neuroimaging is not indicated in patients with recurrent headache with the clinical features of migraine, a normal neurological examination, and no red flags.
- Neuroimaging, sinus X-rays, cervical spine X-rays, and EEG are not recommended for the routine assessment of the patient with headache. History and physical/neurological examination is usually sufficient to make a diagnosis of migraine or tension-type headache.

DIFFERENTIAL DIAGNOSIS

- Migraine is by far the most common headache type in patients seeking help for headache from physicians.
- Migraine is historically under-diagnosed and under-treated. Many patients with migraine are not diagnosed with migraine when they consult a physician.
- Migraine should be considered in patients with recurrent moderate or severe headaches and a normal neurological examination.
- Patients consulting for bilateral headaches which interfere with their activities are likely to have migraine rather than tension-type headache and may require migraine specific medication.
- Consider a diagnosis of migraine in patients with a previous diagnosis of recurring “sinus” headache.
- Monitor for medication overuse.
- Medication overuse is considered present when patients with migraine or tension-type headache use combination analgesics, opioids, or triptans on 10 or more days per month or acetaminophen or NSAIDs on 15 or more days a month.

MANAGING MIGRAINE

- Comprehensive migraine therapy includes management of lifestyle factors and triggers, acute and prophylactic medications, and migraine self-management strategies.
- ASA, acetaminophen, NSAIDs, and triptans are the primary medications for acute migraine treatment.
- A triptan should be used when NSAIDs are not effective.
- Opioid-containing analgesics are not recommended for routine use for migraine.
- Butalbital-containing combination analgesics should be avoided.
- Vast amounts of over-the-counter analgesics are taken for headache disorders and treatment is often sub-optimal.
- A substantial number of people who might benefit from prophylactic therapy do not receive it.

**Refer to Guideline for Primary Care Management of Headache in Adults 2nd edition, for management details: www.topalbertadoctors.org/cpgs/10065*