

Medication-overuse headache

Andrew Micieli MD MMI, Jennifer Robblee MD MSc

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1 Medication-overuse headache (MOH) is common, disabling and underrecognized in clinical practice

Patients with primary headache disorders who overuse analgesia are at risk for MOH, in which the analgesia leads to the paradoxical effect of increasing headache frequency (Box 1).¹ The prevalence of MOH in the general population is 1%–2% and as high as 20.6% in referrals to Canadian headache clinics.²

2 The headache associated with medication overuse can be different in quality and location from the baseline headache

This can make the diagnosis of the underlying primary headache disorder difficult at initial consultation. Neuroimaging should be reserved for patients with red flags if the clinical history supports MOH (Appendix 1, available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.171101/-/DC1).¹ Clinical cues for MOH include an escalation of headache frequency associated with analgesia usage, morning headaches reflecting analgesia withdrawal, predictable development of a headache when medication is delayed and concussion with headache that is not improving.³

3 Opioid- and butalbital-containing agents should not be used to treat headaches

Use of opioids and barbiturates can lead to central sensitization, headache relapse, hyperalgesia and abuse.³ Medication-overuse headache can develop in the absence of problematic headaches when opioids are used for chronic pain.³

4 The cornerstone of treatment is patient education followed by stopping or tapering the offending medication

Cessation of offending analgesia may lead to transient exacerbation of headache (lasting 2–10 days) that can be treated with a bridging two-week course of naproxen, long-acting frovatriptan twice per day or short prednisone taper.⁴ Abrupt withdrawal of overused medications is recommended, except for barbiturates or opioids, which should be tapered over one month.⁴

5 A prophylactic medication should be started to reduce primary headache frequency and severity

Topiramate, β -blockers, amitriptyline and gabapentin are strongly recommended for prophylaxis of the primary headache; choice should be individualized based on the drugs' adverse-effect profiles.⁵ For difficult cases, particularly with serious behavioural or medical comorbidities, day-hospital or inpatient treatment for intravenous rescue therapy and psychological support may be required.³

Box 1: Recommended monthly maximums for commonly used medications in headache

Medication	Maximum monthly use, d (ICHD-3 criteria ¹)
Opioids	10†
Barbiturates (butalbital combinations)	10†
Triptans	10
Ergotamines	10
Acetaminophen	15
Combination analgesia	10
ASA (less common)*	15
Nonsteroidal antiinflammatory drugs (less common)	15

Note: ASA = acetylsalicylic acid, ICHD-3 = The International Classification of Headache Disorders, 3rd ed, MOH = medication-overuse headache.
 *Caveat: Do not stop ASA if it has a cardiovascular indication. Consider switching to clopidogrel if appropriate.
 †Caveat: Opioids and butalbital may lead to MOH in about 5 days.

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Affiliations: Division of Neurology (Micieli), University of Toronto; Division of Neurology (Robblee), Krembil Neuroscience Centre Headache Clinic, Toronto, Ont.

Correspondence to: Jennifer Robblee, jennifer.robblee@uhn.ca