

Canadian Headache Society Guideline: Acute Drug Therapy for Migraine Headache

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 Society Acute Migraine Treatment Guideline Development Group

ABSTRACT: **Objectives:** The primary objective of this guideline is to assist the practitioner in choosing an appropriate acute medication for an individual with migraine, based on current evidence in the medical literature and expert consensus. It is focused on patients with episodic migraine (headache on ≤ 14 days a month). **Methods:** A detailed search strategy was used to find relevant meta-analyses, systematic reviews and randomized double-blind controlled trials. Recommendations were graded with the Grading of Recommendations Assessment, Development and Evaluation (GRADE) Working Group, using a consensus group. In addition, a general literature review and expert consensus were used for aspects of acute therapy for which randomized controlled trials are not available. **Results:** Twelve acute medications received a strong recommendation for use in acute migraine therapy (almotriptan, eletriptan, frovatriptan, naratriptan, rizatriptan, sumatriptan, zolmitriptan, ASA, ibuprofen, naproxen sodium, diclofenac potassium, and acetaminophen). Four received a weak recommendation for use (dihydroergotamine, ergotamine, codeine-containing combination analgesics, and tramadol-containing combination analgesics). Three of these were NOT recommended for routine use (ergotamine, and codeine- and tramadol-containing medications). Strong recommendations were made to avoid use of butorphanol and butalbital-containing medications. Metoclopramide and domperidone were strongly recommended for use where necessary. Our analysis also resulted in the formulation of eight general acute migraine treatment strategies. These were grouped into: 1) two mild-moderate attack strategies, 2) two moderate-severe attack or NSAID failure strategies, 3) three refractory migraine strategies, and 4) a vasoconstrictor unresponsive-contraindicated strategy. Additional strategies were developed for menstrual migraine, migraine during pregnancy, and migraine during lactation. **Conclusion:** This guideline provides evidence-based advice on acute pharmacological migraine therapy, and should be helpful to both health professionals and patients. The available medications have been organized into a series of strategies based on patient clinical features. These strategies may help practitioners make appropriate acute medication choices for patients with migraine.

RÉSUMÉ: Lignes directrices de la Canadian Headache Society : médicaments pour traiter la crise aiguë de migraine. **Objectifs :** L'objectif principal de ces lignes directrices est d'aider le médecin à choisir une médication appropriée pour un individu qui présente des crises aiguës de migraine. Ces lignes directrices sont basées sur les données actuelles de la littérature médicale et sur un consensus expert. Elles sont ciblées sur les patients qui souffrent de migraine épisodique (céphalée présente ≤ 14 jours par mois). **Méthode :** Une stratégie de recherche détaillée a été utilisée pour identifier les méta-analyses pertinentes, les revues systématiques et les essais contrôlés randomisés, à double insu. Les recommandations ont été classées selon le Grading of Recommendations Assessment, Development and Evaluation (GRADE) Working Group au moyen d'un groupe de consensus. De plus, une revue générale de la littérature et un consensus expert ont été utilisés pour traiter des aspects du traitement de la crise aiguë pour lesquels des essais contrôlés randomisés ne sont pas disponibles. **Résultats :** Douze médicaments pour le traitement de la crise aiguë ont reçu une forte recommandation pour leur utilisation comme traitement de la crise aiguë de migraine (l'almotriptan, l'élétriptan, le frovatriptan, le naratriptan, le rizatriptan, le sumatriptan, le zolmitriptan, l'ASA, l'ibuprofène, le naproxène sodique, le diclofénac potassique et l'acétaminophène). Quatre ont reçu une faible recommandation pour leur utilisation (la dihydroergotamine, l'ergotamine, les analgésiques contenant de la codéine et les analgésiques contenant du tramadol). Trois n'étaient pas recommandés pour utilisation de routine (l'ergotamine et les médicaments contenant de la codéine et ceux contenant du tramadol). Une forte recommandation a été émise contre l'utilisation du butorphanol et des médicaments contenant du butalbital. La métoclopramide et le dompéridone ont été fortement recommandés pour utilisation au besoin. Notre analyse a également mené à l'élaboration de huit stratégies générales de traitement. Elles ont été regroupées ainsi : 1) deux stratégies pour traiter les crises légères ou modérées ; 2) deux stratégies pour traiter les crises modérées ou sévères ou lors d'un échec du traitement par les AINS ; 3) trois stratégies pour le traitement de la migraine réfractaire et 4) une stratégie pour traiter un patient qui ne répond pas à un vasoconstricteur ou chez qui une telle médication est contre-indiquée. Des stratégies additionnelles ont été développées pour la migraine menstruelle, la migraine pendant la grossesse et la migraine pendant la lactation. **Conclusion :** Ces lignes directrices fournissent des conseils fondés sur des preuves sur le traitement pharmacologique de la crise aiguë de migraine et devraient être utiles tant aux professionnels de la santé qu'aux patients. Les médicaments disponibles ont été organisés en une série de stratégies selon le tableau clinique que présente le patient. Ces stratégies peuvent aider les médecins à choisir une médication appropriée pour traiter les crises aigues chez les patients atteints de migraine.

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Contributions to the Guideline – Authors

Irene Worthington conducted initial and subsequent literature searches, and was the primary author of Sections 1 and 2. She contributed to Sections 3, 4, 5, and Appendix 2, participated in consensus groups, and in the final preparation of the manuscript.

Werner J Becker was the primary author of Sections 3, 4, and 5, and of Appendices 1 and 2. He contributed to Sections 1 and 2 and the final preparation of the manuscript, and participated in all consensus groups.

Tamara Pringsheim assisted in the literature review, provided valuable advice for the data analysis, and provided extensive feedback on the manuscript.

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Jonathan Gladstone provided extensive feedback on the manuscript and participated in consensus groups.

Paul Cooper provided extensive feedback on the manuscript and participated in consensus groups.

Esma Dilli provided extensive feedback on the manuscript and participated in consensus groups (except on sections related to opioid and barbiturate use).

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Participated in consensus groups and / or provided feedback on the manuscript.

External Reviewers

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Conflicts of Interest

Irene Worthington has served on Advisory Boards and/or received speaker's honoraria or educational travel grants from Merck, Glaxo Smith Kline, Tribute Pharmaceuticals, Pfizer, and Astra Zeneca.

Tamara Pringsheim has served on advisory boards for Shire Canada and Merz Canada, and has received a travel award from Teva Neuroscience.

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Esma Dilli has served on advisory boards for Allergan, UCB and Tribune. She has received speaker's honoraria from Allergan, Merck and Johnson and Johnson.

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Gary Shapero has served on advisory boards and / or received speaker's honoraria from Merck Frosst, Pfizer, Astra Zeneca, McNeil, GSK, Teva, Allergan, and Johnston and Johnston.

Gordon Mackie has served on medical advisory boards and / or served as a consultant for, received educational travel grants from or done clinical trials for Allergan, Tribute, Merck, Johnson and Johnson, Pfizer, Astra Zeneca, and UCI.

Rose Giannarco has served on medical advisory boards, and / or received speaker's honoraria or research funding from Allergan, Pfizer, Johnson and Johnson, and Teva.

Suzanne Christie has served on Advisory Boards and/or received Research Grants, Speaker's Honoraria or Educational Grants from Merck Frosst, Allergan, Pfizer, Teva, Electrocure, and Johnson and Johnson.

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Guideline Structure

This guideline is divided into five sections and two appendices. The targeted review in Section 2 is the core of the guideline, but Sections 1 and 3 address many other issues important for acute migraine treatment for which randomized controlled trial information is not available.

A guideline summary for primary care physicians and a summary for patients are also provided. Appendix 1 provides a detailed summary of how the guideline was developed. Appendix 2 provides a patient information sheet on acute migraine treatment. Appendix 3 provides a headache diary with instructions. A headache diary can also be downloaded from headachenetwork.ca. The sections and appendices are listed below. Each contains its own references in order to allow it to be used on its own, and to allow for easier updating:

Section 1: Introduction to the Guideline, and General Principles of Acute Migraine Management

Section 2: Targeted Review: Medications for Acute Migraine Treatment

Section 3: Pharmacological Acute Migraine Treatment Strategies: Choosing the Right Drug for a Specific Patient

Section 4: Acute Drug Therapy for Migraine Headache: Guideline Summary for Primary Care Physicians

Section 5: Acute Drug Therapy for Migraine Headache: Guideline Summary for Patients and Their Families

Appendix 1: Guideline Development Summary

Appendix 2: Acute Migraine Treatment: Information for Patients

Appendix 3: Headache Diary

Disclaimer: This guideline is designed to offer evidence-based strategies for the acute treatment of migraine. It is not, however, intended to replace clinical judgment or establish a treatment protocol for all individuals with migraine. Although every attempt has been made to provide current information, it is the responsibility of the practitioner to ensure that drugs and dosages are used correctly.