VA/DoD Clinical Practice Guidelines

Management of Headache

Provider Summary

Version 2.0 | 2023

VA/DoD CLINICAL PRACTICE GUIDELINE FOR MANAGEMENT OF HEADACHE

Department of Veterans Affairs

Department of Defense

Provider Summary

QUALIFYING STATEMENTS

The Department of Veterans Affairs (VA) and the Department of Defense (DoD) guidelines are based on the best information available at the time of publication. The guidelines are designed to provide information and assist decision making. They are not intended to define a standard of care and should not be construed as one. Neither should they be interpreted as prescribing an exclusive course of management.

This clinical practice guideline (CPG) is based on a systematic review of both clinical and epidemiological evidence. Developed by a panel of multidisciplinary experts, it provides a clear explanation of the logical relationships between various care options and health outcomes while rating both the quality of the evidence and the strength of the recommendation.

Variations in practice will inevitably and appropriately occur when providers consider the needs of individual patients, available resources, and limitations unique to an institution or type of practice. Therefore, every health care professional using these guidelines is responsible for evaluating the appropriateness of applying them in the setting of any particular clinical situation with a patient-centered approach.

These guidelines are not intended to represent VA or DoD policies. Further, inclusion of recommendations for specific testing, therapeutic interventions, or both within these guidelines does not guarantee coverage of civilian sector care.

Version 2.0 – September 2023

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Introduction

The VA and DoD Evidence-Based Practice Work Group (EBPWG) was established and first chartered in 2004, with a mission to advise the VA/DoD Health Executive Committee "on the use of clinical and epidemiological evidence to improve the health of the population . . ." across the Veterans Health Administration (VHA) and Defense Health Agency (DHA), by facilitating the development of CPGs for the VA and DoD populations.(1) Development and update of VA/DoD CPGs is funded by VA Evidence Based Practice, Office of Quality and Patient Safety. The system-wide goal of evidence-based CPGs is to improve patient health and wellbeing.

In July 2020, the VA and DoD published a CPG for The Primary Care Management of Headache (2020 VA/DoD Headache CPG), which was based on evidence reviewed through March 2019. Since the release of that CPG, the evidence base on Headache has expanded. Consequently, the EBPWG initiated the update of the 2020 VA/DoD Headache CPG in 2023. This updated CPG's use of Grading of Recommendations Assessment, Development, and Evaluation (GRADE) approach reflects a more rigorous application of the methodology than previous iterations.(2) Therefore, the strength of some recommendations may have been modified due to the confidence in the quality of the supporting evidence (see Methods).

This CPG provides an evidence-based framework for evaluating and managing care for individuals living with headache toward improving clinical outcomes. Successful implementation of this CPG will:

- Assess the patient's condition and collaborate with the patient, family, and caregivers to determine optimal management of patient care;
- Emphasize the use of patient-centered care and shared decision making;
- Minimize preventable complications and morbidity; and
- Optimize individual health outcomes and quality of life (QoL).

The full VA/DoD Headache CPG, as well as additional toolkit materials including a Pocket Card and Patient Summary, can be found at: https://www.healthquality.va.gov/index.asp.

Scope of the CPG

This CPG is based on published clinical evidence and related information available through August 16, 2022. It is intended to provide general guidance on best evidence-based practices (see Appendix A in the full VA/DoD Headache CPG for additional information on the evidence review methodology). Although the CPG is intended to improve quality of care and clinical outcomes (see Introduction), it is not intended to define a standard of care (i.e., mandated or strictly required care).

This CPG is intended for use by primary care providers (PCP) and others involved in managing or co-managing patients with headache. Additionally, this CPG is intended for community-based clinicians involved in the care of active duty Service members, beneficiaries, or Veterans with headache.

The patient population of interest for this CPG is patients who are living with headache who are eligible for care in the VA or DoD healthcare delivery systems, and those who receive care from community-based clinicians. It includes Veterans and active duty Service members as well as their dependents.

Guideline Development Team

Table 1. Guideline Work Group and Guideline Development Team

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Patient-centered Care

Intended to consider patient needs and preferences, guideline recommendations represent a whole/holistic health approach to care that is patient centered, culturally appropriate, and available to people with limited literacy skills and physical, sensory, or learning disabilities. VA/DoD CPGs encourage providers to use a patient-centered, whole/holistic health approach (i.e., individualized treatment based on patient needs, characteristics, and preferences). This approach aims to treat the particular condition while also optimizing the individual's overall health and wellbeing.

Regardless of the care setting, all patients should have access to individualized evidence-based care. Patient-centered care can decrease patient anxiety, increase trust in providers, and improve treatment adherence.(3, 4) A whole/holistic health approach (https://www.va.gov/wholehealth/) empowers and equips individuals to meet their personal health and wellbeing goals. Good communication is essential and should be supported by evidence-based information tailored to each patient's needs. An empathetic and non-judgmental approach facilitates discussions sensitive to sex, culture, ethnicity, and other differences.

Shared Decision Making

This CPG encourages providers to practice shared decision making, a process in which providers, patients, and patient care partners (e.g., family, friends, caregivers) consider clinical evidence of benefits and risks as well as patient values and preferences to make

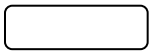
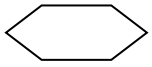
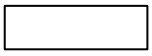
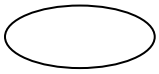
decisions regarding the patient's treatment.(5) Shared decision making is emphasized in *Crossing the Quality Chasm,* an Institute of Medicine (IOM), now NAM, report in 2001(6) and is inherent within the whole/holistic health approach. Providers must be adept at presenting information to their patients regarding individual treatments, expected risks, expected outcomes, and levels or settings of care or both, especially where patient heterogeneity in weighing risks and benefits might exist. Veterans Health Administration and DHA have embraced shared decision making. Providers are encouraged to use shared decision making to individualize treatment goals and plans based on patient capabilities, needs, and preferences.

Algorithm

This CPG's algorithm is designed to facilitate understanding of the clinical pathway and decision-making process used in managing patients with headache. This algorithm format represents a simplified flow of the management of patients with headache and helps foster efficient decision making by providers. It includes

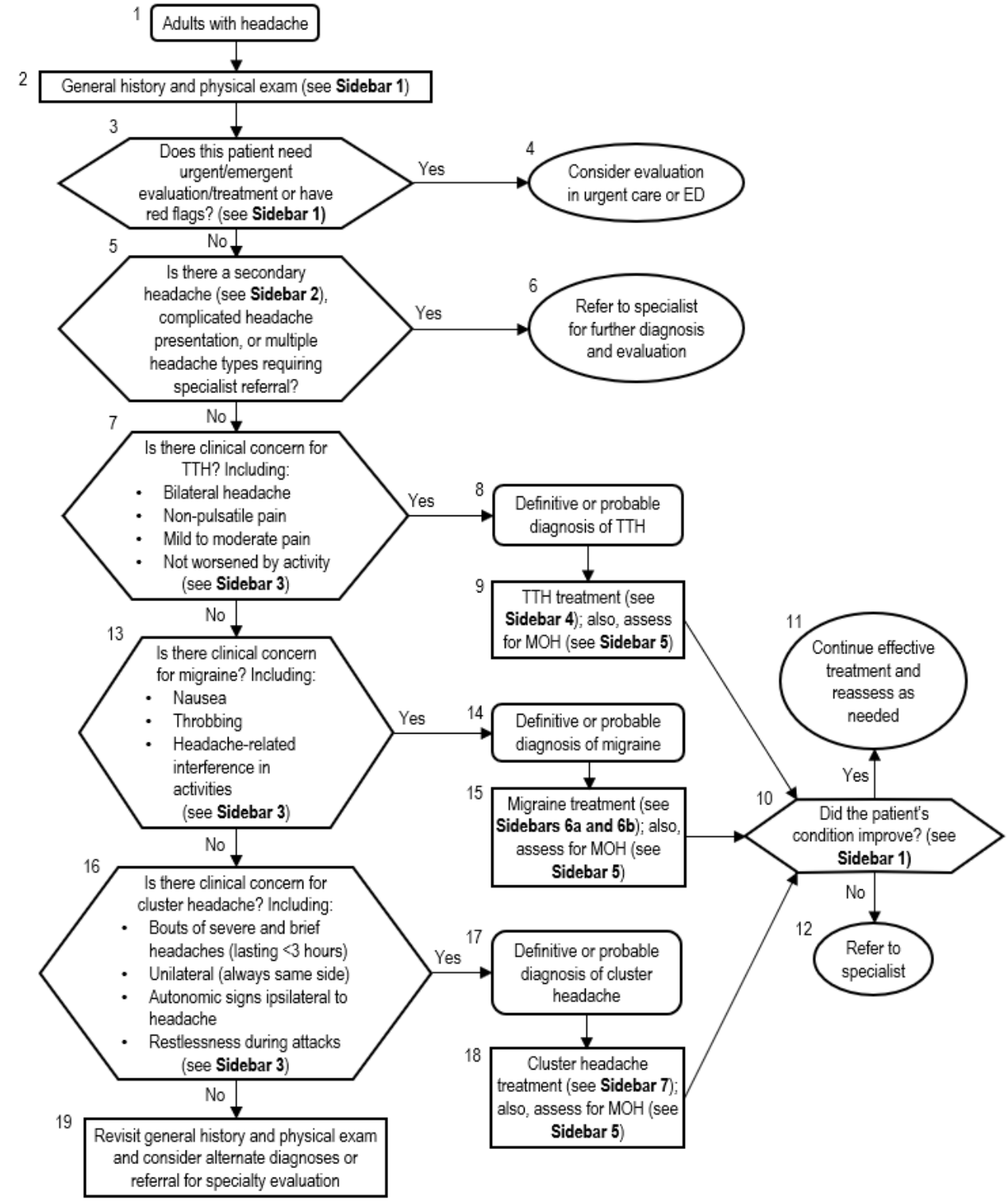
- Steps of care in an ordered sequence,
- Decisions to be considered,
- Decision criteria recommended, and
- Actions to be taken.

The algorithm is a step-by-step decision tree. Standardized symbols display each step, and arrows connect the numbered boxes indicating the order in which the steps should be followed.(7) Sidebars 1–7 provide more detailed information to assist in defining and interpreting elements in the boxes.

Shape	Description
	Rounded rectangles represent a clinical state or condition.
	Hexagons represent a decision point in the process of care, formulated as a question that can be answered "Yes" or "No."
	Rectangles represent an action in the process of care.
	Ovals represent a link to another section within the algorithm.

Appendix K in the full VA/DoD Headache CPG contains alternative text descriptions of the algorithm.

Module A: Evaluation and Treatment of Headache



Abbreviations: ED: emergency department; MOH: medication overuse headache; TTH: tension-type headache

Sidebar 1: General History and Physical Exam

History

- Frequency, character
- Onset, prodrome/aura
- Location, duration
- Relieving or exacerbating factors
- Associated symptoms
- Autonomic symptoms
- Jaw symptoms
- Neck symptoms
- Visual deficits/changes
- Dizziness and imbalance
- Current medications, abortive dose and frequency per month, prophylactic dose
- Prior medication trials
- Diet and nutrition, hydration
- Alcohol, caffeine intake
- Sleep
- Exercise
- Aggravated by routine physical activity
- Sense of restlessness
- Foreign body sensation in the eye
- Nicotine and other stimulant use
- Risk factors for MOH
- History of trauma to the head, neck, or both
- Other comorbid conditions that might contribute to or exacerbate headaches
- Mental health (e.g., depression, anxiety, PTSD)
- Menstrual cycle and proximity to menopause

Red flags SNOOP(4)E (8)

- **Systemic** symptoms, illness, or condition (e.g., fever, chills, myalgias, night sweats, weight loss or gain, cancer, infection, giant cell arteritis, pregnancy or postpartum, or an immunocompromised state—including HIV)
- **Neurologic** symptoms or abnormal signs (e.g., confusion, impaired alertness or consciousness, changes in behavior or personality, diplopia, pulsatile tinnitus, focal neurologic symptoms or signs, meningismus, or seizures, ptosis, proptosis, pain with eye movements)
- **Onset** (e.g., abrupt or "thunderclap" where pain reaches maximal intensity immediately or within minutes after onset; first ever, severe, or "worst headache of life")
- **Older** onset (age ≥50 years)
- **Progression** or change in pattern (e.g., in headache frequency, severity, clinical features)
- **Precipitated** by Valsalva (e.g., coughing, bearing down)
- **Postural** aggravation
- **Papilledema**
- **Exertion**

Examination

- Blood pressure
- General neurologic (upper extremities reflexes, sensation, strength, UMN, pathologic reflexes)
- Cranial nerves (including funduscopic exam)
- Cervical spine and surrounding musculature (palpation, ROM, Spurling's sign test)
- Temporomandibular joint (palpation, ROM, symmetry, jaw claudication)
- Pericranial muscle palpation
- Temporal artery palpation; pertinent findings might include tenderness, cord-like artery, or lack of pulse

Standardized headache assessments

- MIDAS (migraine-related disability) (9)
- HIT-6 (impact of headache on daily life and pain severity) (10)
- MSQL (quality of life) (11)
- ID Migraine (migraine) (12)
- Patient Headache Diary (7 day, 3 months)[a]

Additional screening tools

- PHQ-2 and PHQ-9 (depression) (13, 14)
- GAD-2 and GAD-7 (anxiety) (15, 16)
- CAGE (ethanol overuse headache) (17)
- AUDIT-C (ethanol overuse headache) (18)
- PC-PTSD (PTSD) (19)
- STOP-BANG (sleep) (20)

[a] See the headache diaries included in the Patient Provider Tools for the VA/DoD CPG for the Management of Headache, available at https://www.healthquality.va.gov/guidelines/Pain/headache/index.asp.

Abbreviations: AUDIT-C: Alcohol Use Disorders Identification Test-Concise; CAGE: Cut, Annoyed, Guilty, and Eye; GAD-2: Generalized Anxiety Disorder 2-item; GAD-7: Generalized Anxiety Disorder 7-item; HIT-6: Headache Impact Test, 6th edition; HIV: human immunodeficiency virus; MIDAS: Migraine Disability Assessment Test; MOH: medication overuse headache; MSQL: Migraine-Specific Quality of Life Questionnaire; PC-PTSD: Primary Care PTSD Screen for DSM-5; PHQ-2: Patient Health Questionnaire-2; PHQ-9: Patient Health Questionnaire-9; PTSD: posttraumatic stress disorder; ROM: range of motion; SNOOP(4)E: Systemic, Neurologic, Onset sudden, Onset after 50, Pattern change, Precipitated, Postural, Papilledema, Exertion; STOP-BANG: Snoring history, Tired during the day, Observed stop breathing while sleep, High blood pressure, BMI more than 35 kg/m2, Age more than 50 years, Neck circumference more than 40 cm, and male sex; UMN: upper motor neuron

Sidebar 2: Criteria for Determining Primary versus Secondary Headache Disorders

Initial evaluation of headache should aim to determine whether a secondary cause for the headache exists or whether the diagnosis of a primary headache disorder is appropriate. Emergent evaluation should be considered based on red flag features. In general, a secondary headache can be diagnosed if the headache is new and occurs in close temporal relation to another disorder known to cause headache. It can also be diagnosed when a preexisting headache disorder significantly worsens in close temporal relation to a causative disorder, in which case both the primary and secondary headache diagnoses should be given. ICHD-3 diagnostic criteria are below.(21)

General Diagnostic Criteria for Secondary Headaches

A. Any headache fulfilling C

B. Another disorder scientifically documented to be able to cause headache has been diagnosed
Evidence of causation demonstrated by at least two of the following
   a. Headache has developed in temporal relation to the onset of the presumed causative disorder.
   b. Either or both of the following: headache has significantly worsened in parallel with worsening of the presumed causative disorder or headache has significantly improved in parallel with improvement of the presumed causative disorder.
   c. Headache has characteristics typical for the causative disorder.
   d. Other evidence of causation exists.

C. Not better accounted for by another ICHD-3 diagnosis

The secondary headaches include headache attributed to trauma or injury to the head, neck, or both; cranial or cervical vascular disorder; non-vascular intracranial disorder; substance or its withdrawal; infection; disorder of homeostasis; disorder of the cranium, neck, eyes, ears, nose, sinuses, teeth, mouth, other facial or cervical structure; or psychiatric disorder.

Abbreviations: ICHD-3: International Classification of Headache Disorders, 3rd edition

Sidebar 3: Common Primary Headache Disorders Criteria*

		Tension-Type Headache[a]	Migraine Headache[b]	Cluster Headache[c]
Headache Duration and Frequency	**Duration**	30 minutes to 7 days	4–72 hours	15–180 minutes
	Frequency	Variable	Variable	Once every other day to eight per day; often occurring at the same time of day
Headache Characteristics	**Severity**	Mild to moderate	Moderate to severe	Severe or very severe
	Location	Bilateral	Unilateral	Unilateral orbital, supraorbital, or temporal pain or any combination of such pain
	Quality	Pressing or tightening, non-pulsating	Throbbing or pulsating	Stabbing, boring
	Aggravated by routine physical activity	Not aggravated by routine activity	Aggravated by routine activity	Causes a sense of agitation or restlessness; routine activity might improve symptoms

Sidebar 3: Common Primary Headache Disorders Criteria*				
		Tension-Type Headache[a]	Migraine Headache[b]	Cluster Headache[c]
Associated Features	**Photophobia and phonophobia**	Can have one but not both	Both	Variably present
	Nausea, vomiting, or both	Neither	Either or both	Might be present
Other Features	**Autonomic features**	None	Might occur but are often subtle and not noticed by the patient	Prominent autonomic features ipsilateral to the pain (see Appendix B in the full VA/DoD Headache CPG)

* There are definitions for probable TTH, probable migraine, or probable cluster headache where patients might not fulfill all criteria listed above. The Work Group suggests that providers should not withhold therapy when patients do not meet all criteria listed for TTH, migraine, or cluster headache (i.e., are diagnosed with probable TTH, probable migraine, or probable cluster headache).(21) Providers should continually reassess patients during therapy (see Box 19 in Module A).

[a] A diagnosis of "definite" TTH requires at least 10 headaches lasting 30 minutes to 7 days with at least two defining characteristics (i.e., bilateral location, non-pulsating quality, mild to moderate intensity, not aggravated by routine physical activity) and both of the associated features (i.e., no nausea or vomiting; either photophobia or phonophobia, but not both). (See ICHD-3 "Definite" Definition, available at 2. Tension-type headache (TTH) – ICHD-3.) If headaches fulfill all but one of the TTH criteria (e.g., having both photophobia and phonophobia), the diagnosis would be probable TTH. (See ICHD-3 "Probable" Definition, available at 2.4 Probable tension-type headache – ICHD-3.)

[b] A diagnosis of "definite" migraine requires at least 5 headaches lasting 4–72 hours with at least two defining headache characteristics (i.e., unilateral throbbing or pulsating, moderate or severe intensity, aggravated, or caused by routine physical activity) and at least one associated feature (i.e., nausea, vomiting, or both and both photophobia and phonophobia). (See ICHD-3 "Definite" Definition, available at 1. Migraine - ICHD-3.) If headaches fulfill all but one of the migraine criteria (e.g., photophobia or phonophobia but not photophobia and phonophobia), the diagnosis would be probable migraine. (See ICHD-3 "Probable" Definition, available at 1.5 Probable migraine – ICHD-3.)

[c] A diagnosis of cluster headache requires at least 5 headaches of severe to very severe unilateral orbital, supraorbital, temporal pain or any combination of such pain lasting 15–180 minutes and occurring once every other day to no more than eight times a day. Either or both autonomic features and a feeling of restless or agitation are required. "Definite" cluster headache must fulfill all these criteria. (See ICHD-3 "Definite" Definition, available at 3.1 Cluster headache – ICHD-3.) "Probable" cluster headache fulfills all criteria except one. (See ICHD-3 "Probable" Definition, available at 3.5 Probable trigeminal autonomic cephalalgia - ICHD-3.) Autonomic symptoms include conjunctival injection, lacrimation, or both; nasal congestions, rhinorrhea, or both; eyelid edema; forehead and facial sweating miosis, ptosis, or both.

Sidebar 4: Treatment Options for Tension-Type Headache[a, b]					
Type	Rec #	Treatment	Episodic	Chronic	Notes
Non-pharmacologic Therapy – Preventive	42	Physical therapy	x	x	• *Weak for* • "Physical therapy" refers to a range of interventions carried out by licensed physical therapists, including manual therapy, therapeutic exercise, strength and endurance training, self-management training, and adjunctive modalities.
	43	Aerobic exercise or progressive strength training	x	x	• *Weak for*

Sidebar 4: Treatment Options for Tension-Type Headache[a, b]					
Type	**Rec #**	**Treatment**	**Episodic**	**Chronic**	**Notes**
Pharmacotherapy – Preventive	25	Amitriptyline*		x	• *Weak for* • Accessible for general practitioners to prescribe, inexpensive, and might help with patients who suffer from insomnia. Side effects include cognitive impairments, dry mouth, dry eyes, weight gain, sedation, dizziness, blurred vision, GI distress, and nausea. • Amitriptyline, as with all tricyclic antidepressants, can be fatal in overdose so caution should be used when prescribing in patients with history of suicidality. • Consider Beer's Criteria for age-related safety concerns.
Pharmacotherapy – Abortive	27	Ibuprofen 400 mg or acetaminophen 1,000 mg*	x	x	• *Weak for*

* Indicates that the treatment has not yet received FDA approval

[a] For the full recommendation language, see Recommendations.

[b] See Appendix C in the full VA/DoD Headache CPG for additional treatment options for general headache.

Abbreviations: GI: gastrointestinal; mg: milligram

Sidebar 5: Medication Overuse Headache Criteria
ICHD-3 diagnostic criteria include: A. Headache occurring on 15 or more days per month in a patient with a preexisting headache disorder B. Regular overuse for more than 3 months of one or more drugs that can be taken for the acute or symptomatic treatment of headache (see table below) C. No better accounted for by another ICHD-3 diagnosis

Medication Overuse Headache Type	Medication Overuse Frequency
Butalbital overuse[a]	≥5 days/month for >3 months
Opioid overuse[a]	≥8 days/month for >3 months
Triptan overuse	≥10 days/month for >3 months
Ergotamine overuse	
Combination-analgesic overuse (any combination of classes, not to include combinations that include only non-opioid analgesics)[a, b]	
Non-opioid analgesic overuse (e.g., aspirin, NSAIDs, acetaminophen, steroids, and combinations of non-opioid analgesics)	≥15 days/month for >3 months

[a] The Work Group notes that for opioids and barbiturates, some population studies suggest lower thresholds for these drug classes. The frequency threshold is approximately 8 days of opioid use per month and 5 days of butalbital use per month.(22-26) The Work Group also suggests that providers ask patients about use of these drug classes for non-headache indications as days per month are a total for any use of these medications.

[b] Combination-analgesic refers to a headache abortive medication that contains more than one active ingredient and might refer to over-the-counter or prescription agents. Over-the-counter combination analgesics often contain a mix of NSAIDS and caffeine with the most common ones containing aspirin, acetaminophen, and caffeine. Common brand names include Excedrin Migraine™, Goody's Powder™, BC Powder™, and Vanquish™. Prescription combination medications often contain butalbital or opioids. Common brand names include Fiorinal™, Fioricet™, Percocet™, and Tylenol #3™.

Abbreviations: ICHD-3: International Classification of Headache Disorders, 3rd Edition; NSAID: nonsteroidal anti-inflammatory drug

Sidebar 6a: Pharmacologic Treatment Options for Migraine[a, b]					
Type	**Rec #**	**Treatment**	**Episodic[c]**	**Chronic[c]**	**Recommendation Strength**
Pharmacotherapy – Preventive	4	Candesartan or telmisartan*	x		*Strong for*
	7	Lisinopril*	x		*Weak for*
	11	Valproate	x		*Weak for*
	12	Memantine*	x		*Weak for*
	13	Atogepant	x		*Weak for*
	16	Rimegepant	x		*Neither for nor against*
	18	Levetiracetam*	x		*Neither for nor against*
	5	Erenumab, fremanezumab, or galcanezumab	x	x	*Strong for*
	10	Propranolol	x	x	*Weak for*
	8	Magnesium, oral	x	x	*Weak for*
	9	Topiramate	x	x	*Weak for*
	3	Fluoxetine* or venlafaxine*	x	x	*Neither for nor against*
	52	Combination pharmacotherapy	x	x	*Neither for nor against*
Pharmacotherapy – Abortive	20	Aspirin/Acetaminophen/Caffeine	NA		*Strong for*
	19	Eletriptan, frovatriptan, rizatriptan, sumatriptan (oral or subcutaneous), the combination of sumatriptan/naproxen, or zolmitriptan			*Strong for*
	21	Acetaminophen*, aspirin, ibuprofen, naproxen*, or oral solution celecoxib			*Weak for*
	22	Rimegepant or ubrogepant			*Weak for*
	24	Lasmiditan			*Neither for nor against*

* Indicates that the treatment has yet to receive FDA approval for this indication.

[a] For the full recommendation language, see Recommendations. *Weak against* and *Strong against* recommendations have been excluded from this table.

[b] See Appendix C in the full VA/DoD Headache CPG for additional treatment options for general headache.

[c] "x" indicates that evidence exists to support use of the treatment for the specified headache type; a blank cell indicates that no evidence exists to support use of the treatment or that there was evidence of ineffectiveness; "NA" indicates that the treatment is not specified to either episodic or chronic headache type.

Abbreviations: FDA: U.S. Food and Drug Administration

Sidebar 6b: Infusion, Procedural, Invasive, and Non-pharmacologic Treatment Options for Migraine[a, b]					
Type	**Rec #**	**Treatment**	**Episodic[c]**	**Chronic[c]**	**Recommendation Strength**
Preventive	14	OnabotulinumtoxinA		x	*Weak for*
	35	GON block		x	*Neither for nor against*
	38	Pulsed radiofrequency of upper cervical nerves or sphenopalatine ganglion block		x	*Neither for nor against*
	6	Eptinezumab IV	x	x	*Weak for*
	42	Physical therapy	x	x	*Weak for*
	43	Aerobic exercise or progressive strength training	x	x	*Weak for*
	48	Neuromodulation[c]			*Neither for nor against*
Abortive	34	GON block	NA		*Weak for*
	36	SON block			*Neither for nor against*
	37	IV antiemetics (e.g., chlorpromazine, metoclopramide, prochlorperazine)*, IV magnesium*, or intranasal lidocaine*			*Neither for nor against*
	48	Neuromodulation[d]			*Neither for nor against*

* Indicates that the treatment or treatments have yet to receive FDA approval.

[a] For the full recommendation language, see Recommendations. *Weak against* and *Strong against* recommendations have been excluded from this table.

[b] See Appendix C in the full VA/DoD Headache CPG for additional treatment options for general headache.

[c] "x" indicates that evidence exists to support use of the treatment for the specified headache type; a blank cell indicates that no evidence exists to support use of the treatment or that there was evidence of ineffectiveness; "NA" indicates that the treatment is not specified to either episodic or chronic headache type.

[d] For the full list of neuromodulation devices reviewed, see Recommendation 48.

Abbreviations: FDA: U.S. Food and Drug Administration; GON: greater occipital nerve block; IV: intravenous; SON: supra orbital nerve

Sidebar 7: Treatment Options for Cluster Headache[a, b]					
Type	**Rec #**	**Treatment**	**Episodic[c]**	**Chronic[c]**	**Recommendation Strength**
Non-pharmacologic Therapy – Abortive	41	Non-invasive vagus nerve stimulation	x		*Weak for*
Pharmacotherapy – Preventive	28	Galcanezumab	x		*Weak for*
	30	Verapamil*	x	x	*Neither for nor against*
Pharmacotherapy – Abortive	31	Sumatriptan subcutaneaous	NA		*Weak for*
	31	Zolmitriptan nasal spray*			*Weak for*
	32	Oxygen therapy*			*Weak for*

[a] For the full recommendation language, see Recommendations. *Weak against* and *Strong against* recommendations have been excluded from this table.

[b] See Appendix C in the full VA/DoD Headache CPG for additional treatment options for general headache.

[c] "x" indicates that no evidence exists to support use of the treatment for the specified headache type; a blank cell indicates that no evidence exists to support use of the treatment or that there was evidence of ineffectiveness; "NA" indicates that the treatment is not specified to either episodic or chronic headache type.

* Indicates that the treatment has yet to receive FDA approval.

Abbreviations: FDA: U.S. Food and Drug Administration

Recommendations

The evidence-based clinical practice recommendations listed (see Table 2) were made using a systematic approach considering four domains as per the GRADE approach (see Methods and Appendix A in the full VA/DoD Headache CPG). These domains include confidence in the quality of the evidence, balance of desirable and undesirable outcomes (i.e., benefits and harms), patient values and preferences, and other implications (e.g., resource use, equity, acceptability).

Table 2. Evidence-based Clinical Practice Recommendations with Strength and Category

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Medication Overuse Headache Screening and Other Considerations		1	We suggest providers assess for and consider the following high-risk factors for medication overuse headache in patients with headache (in order of relative impact): • Headache frequency (greater than or equal to 7 days per month) • Migraine diagnosis • Medication use: frequent use of anxiolytics, analgesics (for any condition, including use of opioids or non-opioid analgesics for acute treatment of migraine), or sedative hypnotics • History of anxiety or depression, especially in combination with musculoskeletal complaints or gastrointestinal complaints • Physical inactivity • Sick leave of greater than 2 weeks in the last year • Self-reported whiplash • Smoking (tobacco use)	Weak for	Not reviewed, Amended
Pharmacotherapy	*Headache – Preventive*	2	There is insufficient evidence to recommend for or against coenzyme Q10, feverfew, melatonin, omega-3, vitamin B2, or vitamin B6 for the prevention of headache.	Neither for nor against	Not reviewed, Amended
		3	There is insufficient evidence to recommend for or against fluoxetine or venlafaxine for the prevention of headache.	Neither for nor against	Reviewed, Not changed
	Migraine – Preventive	4	We recommend candesartan or telmisartan for the prevention of episodic migraine.	Strong for	Reviewed, New-replaced
		5	We recommend erenumab, fremanezumab, or galcanezumab for the prevention of episodic or chronic migraine.	Strong for	Reviewed, New-replaced
		6	We suggest intravenous eptinezumab for the prevention of episodic or chronic migraine.	Weak for	Reviewed, New-added
		7	We suggest lisinopril for the prevention of episodic migraine.	Weak for	Reviewed, Not changed
		8	We suggest oral magnesium for the prevention of migraine.	Weak for	Not reviewed, Not changed
		9	We suggest topiramate for the prevention of episodic and chronic migraine.	Weak for	Reviewed, New-replaced

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Pharmacotherapy (cont.)	Migraine – Preventive (cont.)	10	We suggest propranolol for the prevention of migraine.	Weak for	Reviewed, Not changed
		11	We suggest valproate for the prevention of episodic migraine.	Weak for	Reviewed, New-replaced
		12	We suggest memantine for the prevention of episodic migraine.	Weak for	Reviewed, New-added
		13	We suggest atogepant for the prevention of episodic migraine.	Weak for	Reviewed, New-added
		14	We suggest onabotulinumtoxinA injection for the prevention of chronic migraine.	Weak for	Reviewed, Not changed
		15	We suggest against abobotulinumtoxinA or onabotulinumtoxinA injection for the prevention of episodic migraine.	Weak against	Reviewed, Not changed
		16	There is insufficient evidence to recommend for or against rimegepant for the prevention of episodic migraine.	Neither for nor against	Reviewed, New-added
		17	We suggest against the use of gabapentin for the prevention of episodic migraine.	Weak against	Reviewed, New-replaced
		18	There is insufficient evidence to recommend for or against levetiracetam for the prevention of episodic migraine.	Neither for nor against	Reviewed, New-added
	Migraine – Abortive	19	We recommend eletriptan, frovatriptan, rizatriptan, sumatriptan (oral or subcutaneous), the combination of sumatriptan and naproxen, or zolmitriptan (oral or intranasal) for the acute treatment of migraine.	Strong for	Reviewed, New-replaced
		20	We recommend aspirin/acetaminophen/caffeine for the acute treatment of migraine.	Strong for	Reviewed, New-added
		21	We suggest acetaminophen, aspirin, ibuprofen, or naproxen for the acute treatment of migraine.	Weak for	Reviewed, Amended
			We suggest rimegepant or ubrogepant for the acute treatment of migraine.	Weak for	Reviewed, New-added
		23	We suggest against intravenous ketamine for the acute treatment of migraine.	Weak against	Reviewed, Amended
		24	There is insufficient evidence to recommend for or against lasmiditan for the acute treatment of migraine.	Neither for nor against	Reviewed, New-added

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Pharmacotherapy (cont.)	*Tension-Type Headache – Preventive*	25	We suggest amitriptyline for the prevention of chronic tension-type headache.	Weak for	Reviewed, Not changed
		26	We suggest against botulinum/neurotoxin injection for the prevention of chronic tension-type headache.	Weak against	Reviewed, Not changed
	Tension-Type Headache – Abortive	27	We suggest ibuprofen (400 mg) or acetaminophen (1,000 mg) for the acute treatment of tension-type headache.	Weak for	Reviewed, Not changed
	Cluster Headache – Preventive	28	We suggest galcanezumab for the prevention of episodic cluster headache.	Weak for	Reviewed, Not changed
		29	We suggest against galcanezumab for the prevention of chronic cluster headache.	Weak against	Reviewed, New-added
		30	There is insufficient evidence to recommend for or against verapamil for the prevention of episodic or chronic cluster headache.	Neither for nor against	Reviewed, New-added
	Cluster Headache – Abortive	31	We suggest subcutaneous sumatriptan (6 mg) or intranasal zolmitriptan (10 mg) for the acute treatment of cluster headache.	Weak for	Reviewed, New-replaced
		32	We suggest the use of normobaric oxygen therapy for the acute treatment of cluster headache.	Weak for	Not reviewed, Amended
	Medication Overuse Headache	33	There is insufficient evidence to recommend for or against the addition of any specific preventive agent or withdrawal strategy to guide the treatment of medication overuse headache.	Neither for nor against	Reviewed, New-replaced

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Injections, Procedures, and Invasive Interventions		34	We suggest greater occipital nerve block for the acute treatment of migraine.	Weak for	Reviewed, Not changed
		35	There is insufficient evidence to recommend for or against greater occipital nerve block for the prevention of chronic migraine.	Neither for nor against	Reviewed, New-added
		36	There is insufficient evidence to recommend for or against supra orbital nerve block for acute treatment of migraine.	Neither for nor against	Reviewed, New-added
		37	There is insufficient evidence to recommend for or against intravenous antiemetics (i.e., intravenous chlorpromazine, intravenous metoclopramide, intravenous prochlorperazine), intravenous magnesium, or intranasal lidocaine for the acute treatment of headache.	Neither for nor against	Reviewed, New-replaced
		38	There is insufficient evidence to recommend for or against pulsed radiofrequency procedure of the upper cervical nerves or sphenopalatine ganglion block for the treatment of chronic migraine.	Neither for nor against	Reviewed, New-replaced
		39	We suggest against an implantable sphenopalatine ganglion stimulator for the treatment of cluster headache.	Weak against	Reviewed, New-added
		40	We suggest against patent foramen ovale closure for the treatment or prevention of migraine.	Weak against	Reviewed, New-added
Non-pharmacologic Therapy		41	We suggest non-invasive vagus nerve stimulation for the acute treatment of episodic cluster headache.	Weak for	Reviewed, Not changed
		42	We suggest physical therapy for the management of tension-type, migraine, or cervicogenic headache.	Weak for	Reviewed, New-replaced
		43	We suggest aerobic exercise or progressive strength training for the prevention of tension-type and migraine headache.	Weak for	Not reviewed, Amended
		44	There is insufficient evidence to recommend for or against the following behavioral interventions for the treatment and/or prevention of headache: • Biofeedback and Smartphone application-based heartrate variability monitoring • Cognitive behavioral therapy • Mindfulness-based therapies • Progressive muscle relaxation	Neither for nor against	Reviewed, New-replaced
		45	There is insufficient evidence to recommend for or against acupuncture, dry needling, or yoga for the treatment and/or prevention of headache.	Neither for nor against	Reviewed, New-replaced
		46	There is insufficient evidence to recommend for or against dietary trigger avoidance for the prevention of headache.	Neither for nor against	Not reviewed, Amended

Topic	Sub-topic	#	Recommendation	Strength[a]	Category[b]
Non-pharmacologic Therapy (cont.)		47	We suggest against immunoglobulin G antibody testing for dietary trigger avoidance for the prevention of headache.	Weak against	Not reviewed, Amended
		48	There is insufficient evidence to recommend for or against any form of neuromodulation for the treatment and/or prevention of migraine: • Non-invasive vagus nerve stimulation • Supraorbital, or external trigeminal, nerve stimulation • Remote electrical neurostimulation • External combined occipital and trigeminal neurostimulation system • Repetitive transcranial magnetic stimulation • Transcranial direct current stimulation	Neither for nor against	Reviewed, New-replaced
Comparative Effectiveness and Combination Therapies		49	There is insufficient evidence to recommend for or against choosing a specific treatment strategy for posttraumatic headache.	Neither for nor against	Reviewed, New-added
		50	There is insufficient evidence to recommend for or against any specific medication over another for the acute treatment of migraine.	Neither for nor against	Reviewed, New-added
		51	There is insufficient evidence to recommend for or against any specific medication over another for the prevention of migraine headache, tension headache, or cluster headache.	Neither for nor against	Reviewed, New-added
		52	There is insufficient evidence to recommend for or against any specific combination of therapies for the prevention of headache.	Neither for nor against	Reviewed, New-replaced

[a] For additional information, see Determining Recommendation Strength and Direction in the full VA/DoD Headache CPG.

[b] For additional information, see Recommendation Categorization in the full VA/DoD Headache CPG.

Pharmacotherapy

The following tables summarize pharmacotherapy options for preventive and abortive treatment. Refer to each drug's prescribing information for full details.

Table 3. Pharmacotherapy – Preventive Dosing Information

Type	Drug	Initial Dose	Usual Range	Comments
Beta-Adrenergic Antagonists	Atenolol	50 mg/day	50–200 mg/day	• Dose should be titrated and maintained for at least 3 months before assessment of response.
	Metoprolol tartrate and metoprolol succinate	100 mg/day in divided doses	100–200 mg/day in divided doses	
	Nadolol	40–80 mg/day	80–240 mg/day	
	Propranolol	40 mg/day in divided doses	40–160 mg/day in divided doses	
	Timolol	20 mg/day in divided doses	20–60 mg/day in divided doses	

Type	Drug	Initial Dose	Usual Range	Comments
Antidepressants	Amitriptyline	10 mg at bedtime	20–50 mg at bedtime	• Use slow titration to reduce sedation.
	Nortriptyline	10 mg daily or at bedtime	20–50 mg daily or at bedtime	• Use slow titration to reduce sedation.
	Venlafaxine	37.5 mg/day	75–150 mg/day	• Titrate dose weekly, as tolerated.
Anticonvulsants	Topiramate	25 mg/day	50–200 mg/day in divided doses	• Increase by 25 mg/week.
	Valproic acid/ divalproex sodium	250–500 mg/day in divided doses or daily for extended release	500–1,500 mg/day in divided doses or daily for extended release	• May monitor levels if adherence is an issue
Calcitonin Gene-Related Peptide Inhibitors	Eptinezumab-jjmr	100 mg IV every 3 months	up to 300 mg IV every 3 months	• Might contain polysorbate 80 (also known as Tweens), which can cause hypersensitivity reactions. • Avoid use in patients with recent cardiovascular or cerebrovascular ischemic events.
	Erenumab-aooe	70 mg SQ monthly	70–140 mg SQ monthly	
	Fremanezumab-vfrm	225 mg SQ monthly	225 mg SQ monthly or 675 mg SQ every 3 months	
	Galcanezumab-gnlm	240 mg SQ one-time loading dose (migraine), 300 mg SQ (cluster)	Maintenance dose for migraine is 120mg SQ monthly. Use in cluster should continue at 300mg SQ monthly until end of cluster period.	
	Atogepant	10–60 mg/day	10–60 mg/day	
	Rimegepant	75 mg every other day	75 mg every other day	• Avoid strong CYP3A4 inhibitors, strong or moderate CYP3A4 inducers, p-glycoprotein inhibitors. • Approved for both acute and preventive treatment (maximum daily dose is 75 mg)

Type	Drug	Initial Dose	Usual Range	Comments
Triptans	Frovatriptan	2.5 mg/day or 5 mg/day in divided doses	Same as initial dose	• Use intermittently for short-term prevention of menstrually associated migraines. Daily or prolonged use might lead to medication overuse headache.
	Naratriptan	2 mg/day in divided doses	Same as initial dose	
	Zolmitriptan	5–7.5 mg/day in divided doses	Same as initial dose	
Miscellaneous	Histamine	1–10 mg two times/week	Same as initial dose	• Might cause transient itching and burning at injection site
	Magnesium	400 mg/day	800 mg/day in divided doses	• Might be more helpful in migraine with aura and menstrual migraine
	MIG-99 (feverfew)	10–100 mg/day in divided doses	Same as initial dose	• Withdrawal might be associated with increased headaches.
	Riboflavin	400 mg/day in divided doses	400 mg/day in divided doses	• Benefit only after 3 months

Abbreviations: mg: milligrams; SQ: subcutaneously

Table 4. Pharmacotherapy – Abortive Dosing Information

Type	Drug	Usual Dose	Comments
Analgesics	Acetaminophen	1,000 mg at onset; repeat every 4-6 hours, as needed.	• Maximum daily dose is 4 g; lower dosage in individuals with risk factors. Consult prescribing information for further detail.
	Acetaminophen 250 mg/aspirin 250 mg/caffeine 65 mg	2 tablets at onset and every 6 hours	• Available OTC
Nonsteroidal Anti-inflammatory Drugs	Aspirin	500–1,000 mg every 4–6 hours	• Maximum daily dose is 4 g.
	Diclofenac	50–100 mg at onset; can repeat 50 mg in 8 hours	• Avoid doses >150 mg/day.
	Ibuprofen	200–800 mg every 6 hours	• Avoid doses >2.4 g/day.
	Naproxen sodium	550–825 mg at onset; can repeat 220 mg in 3–4 hours	• Avoid doses >1.375 g/day.
	Celecoxib oral solution	120 mg as a single dose	• Maximum dose is 120 mg per 24 hours.

Type	Drug	Usual Dose	Comments
Ergotamine Tartrate	Oral tablet (1 mg) with caffeine 100 mg	2 mg at onset; then 1–2 mg every 30 minutes, as needed	• Maximum dose is 6 mg/day or 10 mg/week. • Consider pretreatment with an antiemetic.
	Sublingual tablet (2 mg)	2 mg sublingual tablet at the first sign of an attack; then 2 mg sublingual tablet after 30 minutes, if needed If the additional dose is well tolerated, the initial dose may be increased at the next attack, up to a maximum initial dose of 4 mg ergotamine.	• Do not exceed 3 tablets (6 mg ergotamine)/24 hours per any 1 attack.
	Rectal suppository (2 mg) with caffeine 100 mg	Insert ½–1 suppository at onset; repeat after 1 hour as needed.	• Maximum dose is 4 mg/day or 10 mg/week. • Consider pretreatment with an antiemetic.
Dihydroergotamine	Injection 1 mg/mL	0.25–1 mg at onset IM, IV, or subcutaneous; repeat every hour as needed.	• Maximum dose is 3 mg/day or 6 mg/week.
	Nasal spray 4 mg/mL	1 spray (0.5 mg) in each nostril at onset; repeat sequence 15 minutes later (total dose is 2 mg or 4 sprays). 1 spray (0.725 mg) into each nostril (total of 2 sprays per dose); may repeat, as needed, after ≥1 hour for a total of 4 sprays (2 doses)	• Maximum dose is 3 mg/day (Migranal®). • Maximum dose is 4 sprays (2 doses) per 24 hours; 6 sprays (3 doses) per 7 days (Trudhesa®). • Prime sprayer four times before using. • Do not tilt head back or inhale through nose while spraying. • Discard open ampules after 8 hours.
Triptans	Zolmitriptan	2.5 or 5 mg at onset as regular or orally disintegrating tablet; can repeat after 2 hours, if needed	• Optimal dose is 2.5 mg. • Maximum dose is 10 mg/day. • Taken in the perimenstrual period to prevent menstrual migraine
	Almotriptan	6.25 or 12.5 mg at onset; can repeat after 2 hours, if needed	• Optimal dose is 12.5 mg. • Maximum daily dose is 25 mg.
	Eletriptan	20 or 40 mg at onset; can repeat after 2 hours, if needed	• Maximum single dose is 40 mg. • Maximum daily dose is 80 mg.
	Frovatriptan	2.5 or 5 mg at onset; can repeat in 2 hours, if needed	• Optimal dose is 2.5–5 mg. • Maximum daily dose is 7.5 mg (3 tablets).
	Sumatriptan injection	6 mg subcutaneous at onset; can repeat after 1 hour, if needed	• Maximum daily dose is 12 mg.

Type	Drug	Usual Dose	Comments
Triptans (cont.)	Naratriptan	1 or 2.5 mg at onset; can repeat after 4 hours, if needed	• Optimal dose is 2.5 mg. • Maximum daily dose is 5 mg.
	Zolmitriptan nasal spray	5 mg (1 spray) at onset; can repeat after 2 hours, if needed	• Maximum daily dose is 10 mg. • Administer one spray in one nostril.
	Sumatriptan nasal	Spray: 5, 10, or 20 mg at onset; can repeat after 2 hours, if needed Powder: 11 mg in each nostril	• Optimal dose is 20 mg. • Maximum daily dose is 40 mg and 44 mg for powder. • Single-dose device delivering 5 or 20 mg • Administer 1 spray in one nostril.
	Sumatriptan oral tablets	25, 50, 85, or 100 mg at onset; can repeat after 2 hours, if needed	• Optimal dose is 50–100 mg. • Maximum daily dose is 200 mg. • Combination product with naproxen, 85 mg/500 mg
	Rizatriptan	5 or 10 mg at onset as regular or orally disintegrating tablet; can repeat after 2 hours, if needed	• Optimal dose is 10 mg. • Maximum daily dose is 30 mg. • Onset of effect is similar with standard and orally disintegrating tablets. • Use 5 mg dose (15 mg/day maximum) in patients receiving propranolol.
Calcitonin Gene-Related Peptides Inhibitors	Rimegepant	75 mg orally disintegrating tablet	• Maximum daily dose is 75 mg. • Avoid strong CYP3A4 inhibitors, strong or moderate CYP3A4 inducers, p-glycoprotein inhibitors. • Approved for both acute and preventive treatment
	Ubrogepant	50–100 mg as a single dose; may repeat in ≥2-hours	• Up to 200 mg/24 hours, contraindicated with strong CYP3A4 inhibitors; dose adjustment in moderate renal impairment and severe (Child Pugh Class C) hepatic impairment
	Zavegepant*	10 mg (1 spray) in one nostril as a single dose; maximum 10 mg (1 spray) per 24 hours	• Intranasal delivery • Avoid in severe (Child Pugh Class C) hepatic impairment and creatinine clearance fewer than 30 mL/min. • Avoid OATP1B3 and NTCP inhibitors and inducers. • Intranasal decongestants might decrease absorption. If use is necessary, separate from zavegepant by at least 1 hour.

Type	Drug	Usual Dose	Comments
Selective 5-HT 1F Receptor Agonist	Lasmiditan	50 mg, maximum of one dose per 24 hours	• 50–200 mg per 24 hours as a single dose • DEA Schedule V drug, may not drive for 8 hours after dose
Miscellaneous	Metoclopramide	10 mg IV at onset	• Useful for acute relief in the office or ED setting
	Prochlorperazine	10 mg IV or IM at onset	

* Zavegepant was approved by the FDA after the timeframe of literature review for this clinical practice guideline. Thus, there are no recommendations for zavegepant; however, it is included in this pharmacotherapy table as a recently approved abortive migraine treatment option.

Abbreviations: CYP3A4: cytochrome P450 3A4; ED: emergency department; IM: intramuscular; IV: intravenous; mg: milligrams; mL: milliliter; NTCP: sodium taurocholate co-transporting polypeptide; OATP1B3: organic anion transporter family 1B3; OTC: over-the-counter.

Methods

The methodology used in developing this CPG follows the *Guideline for Guidelines*, an internal document of the VA/DoD EBPWG updated in January 2019 that outlines procedures for developing and submitting VA/DoD CPGs.(5) The *Guideline for Guidelines* is available at http://www.healthquality.va.gov/policy/index.asp. This CPG also aligns with the National Academy of Medicine's (NAM) principles of trustworthy CPGs (e.g., explanation of evidence quality and strength, the management of conflicts of interest [COI], interdisciplinary stakeholder involvement, use of systematic review, and external review).(6) Appendix A in the full VA/DoD Headache CPG provides a detailed description of the CPG development methodology.

The Work Group used the GRADE approach to craft each recommendation and determine its strength. Per the GRADE approach, recommendations must be evidence-based and cannot be made based on expert opinion alone. The GRADE approach uses the following four domains to inform the strength of each recommendation (see Determining Recommendation Strength and Direction in the full VA/DoD Headache CPG): confidence in the quality of the evidence, balance of desirable and undesirable outcomes, patient values and preferences, other considerations as appropriate (e.g., resource use, equity, acceptability, feasibility, subgroup considerations).(27)

Using these four domains, the Work Group determined the relative strength of each recommendation (*Strong* or *Weak*). The strength of a recommendation is defined as the extent to which one can be confident that the desirable effects of an intervention outweigh its undesirable effects and is based on the framework above, which incorporates the four

domains.(8) A *Strong* recommendation generally indicates *High* or *Moderate* confidence in the quality of the available evidence, a clear difference in magnitude between the benefits and harms of an intervention, similar patient values and preferences, and understood influence of other implications (e.g., resource use, feasibility).

In some instances, insufficient evidence exists on which to base a recommendation for or against a particular therapy, preventive measure, or other intervention. For example, the systematic evidence review might have found little or no relevant evidence, inconclusive evidence, or conflicting evidence for the intervention. The manner in which this finding is expressed in the CPG might vary. In such instances, the Work Group might include among its set of recommendations a statement of insufficient evidence for an intervention that might be in common practice even though it is unsupported by clinical evidence and particularly if other risks of continuing its use might exist (e.g., high opportunity cost, misallocation of resources). In other cases, the Work Group might decide to exclude this type of statement about an intervention. For example, the Work Group might remain silent where an absence of evidence occurs for a rarely used intervention. In other cases, an intervention might have a favorable balance of benefits and harms but might be a standard of care for which no recent evidence has been generated.[a]

Using these elements, the Work Group determines the strength and direction of each recommendation and formulates the recommendation with the general corresponding text as shown in Table 5.

Table 5. Strength and Direction of Recommendations and General Corresponding Text

Recommendation Strength and Direction	General Corresponding Text
Strong for	We recommend …
Weak for	We suggest …
Neither for nor against	There is insufficient evidence to recommend for or against …
Weak against	We suggest against …
Strong against	We recommend against …

The GRADE of each recommendation made in the 2023 CPG can be found in the section on Recommendations. Additional information regarding the use of the GRADE system can be found in Appendix A in the full VA/DoD Headache CPG.

Recommendation categories were used to track how the previous CPG's recommendations could be reconciled. These categories and their corresponding definitions are similar to those used by the National Institute for Health and Care Excellence (NICE, England).(28, 29) Table 6 lists these categories, which are based on whether the evidence supporting a recommendation was systematically reviewed, the

[a] FDA approval for medications and FDA clearance for devices in and of itself is not a consideration within the GRADE approach.

degree to which the previous CPG's recommendation was modified, and whether a previous CPG's recommendation is relevant in the updated CPG.

Additional information regarding these categories and their definitions can be found in Recommendation Categorization in the full VA/DoD Headache CPG. The 2023 CPG recommendation categories can be found in Recommendations. Appendix F in the full VA/DoD Headache CPG outlines the 2020 VA/DoD Headache CPG's recommendation categories.

Table 6. Recommendation Categories and Definitions[a]

Evidence Reviewed	Recommendation Category	Definition
Reviewed[b]	New-added	New recommendation
	New-replaced	Recommendation from previous CPG was carried forward and revised
	Not changed	Recommendation from previous CPG was carried forward but unchanged
	Amended	Recommendation from previous CPG was carried forward with a nominal change
	Deleted	Recommendation from previous CPG was deleted
Not Reviewed[c]	Not changed	Recommendation from previous CPG was carried forward but unchanged
	Amended	Recommendation from previous CPG was carried forward with a nominal change
	Deleted	Recommendation from previous CPG was deleted

[a] Adapted from the NICE guideline manual (2012)(28) and Garcia et al. (2014)(29)

[b] The topic of this recommendation was covered in the evidence review carried out as part of the development of the current CPG.

[c] The topic of this recommendation was not covered in the evidence review carried out as part of the development of the current CPG.

Abbreviation: CPG: clinical practice guideline

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