



Complete Summary

GUIDELINE TITLE

Practice parameter: evidence-based guidelines for migraine headache (an evidence-based review). Report of the Quality Standards Subcommittee of the American Academy of Neurology.

BIBLIOGRAPHIC SOURCE(S)

Silberstein SD. Practice parameter: evidence-based guidelines for migraine headache (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology* 2000 Sep 26;55(6):754-62. [14 references]

COMPLETE SUMMARY CONTENT

- SCOPE
- METHODOLOGY - including Rating Scheme and Cost Analysis
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- IDENTIFYING INFORMATION AND AVAILABILITY

SCOPE

DISEASE/CONDITION(S)

Migraine headache

GUIDELINE CATEGORY

- Diagnosis
- Management
- Prevention
- Treatment

CLINICAL SPECIALTY

- Family Practice
- Internal Medicine
- Neurology

Preventive Medicine
Radiology

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To summarize the results from four evidence-based reviews on the management of patients with migraine: specifically, acute, preventive, and nonpharmacologic treatments for migraine, and the role of neuroimaging in patients with headache

TARGET POPULATION

Patients with migraine headaches

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis of Migraine

Neuroimaging

Treatment of Migraine -- Specific Medications

1. Triptans (serotonin_{1B/1D} receptor agonists), such as naratriptan, rizatriptan, sumatriptan, and zolmitriptan
2. Ergot alkaloids and derivatives, such as ergotamine per os/per rectum (and caffeine combinations), dihydroergotamine [DHE] (subcutaneous, intravenous, intramuscular, and nasal spray), and dihydroergotamine plus antiemetics intravenous

Treatment of Migraine -- Nonspecific Medications

1. Antiemetics, such as metoclopramide (intramuscular, intravenous), prochlorperazine (intravenous, intramuscular, and per rectum), chlorpromazine intravenous, serotonin receptor (5-HT₃) antagonists
2. Non-steroidal anti-inflammatory drugs (NSAIDS), such as aspirin, diclofenac K, flurbiprofen, ibuprofen, naproxen, and naproxen sodium
3. Nonopiate analgesics and combination analgesics, such as ketorolac and acetaminophen, aspirin, and caffeine (note: acetaminophen alone is considered but not recommended for migraine)
4. Butalbital-containing analgesics
5. Opiate analgesics, such as butorphanol nasal spray, intramuscular butorphanol, intramuscular or intravenous meperidine, intramuscular methadone, or acetaminophen/codeine combinations

Treatment of Migraine -- Other Medications

1. Isometheptene and isometheptene combinations
2. Corticosteroids (dexamethasone or hydrocortisone)

3. Lidocaine, (intranasal or intravenous) is considered but not recommended

Nonpharmacologic Preventive Treatment

Cognitive and Behavioral Treatment

1. Relaxation training, thermal feedback combined with relaxation training, electromyographic biofeedback, and cognitive-behavioral therapy
2. Behavioral therapy combined with preventive drug therapy
3. Hypnosis, acupuncture, transcutaneous nerve stimulation, chiropractic or osteopathic cervical manipulation, occlusal adjustment, and hyperbaric oxygen (considered but not recommended)

Pharmacologic Preventive Therapy

1. Antiepileptics (carbamazepine, divalproex sodium/sodium valproate, gabapentin, and topiramate)
2. Tricyclic antidepressants (amitriptyline, nortriptyline, protriptyline, doxepin, and imipramine)
3. Selective serotonin reuptake inhibitors (fluoxetine, fluvoxamine, paroxetine, and sertraline)
4. Monoamine oxidase inhibitors (phenelzine)
5. Other antidepressants (bupropion, mirtazepine, trazodone, venlafaxine)
6. Beta-blockers (atenolol, metoprolol, nadolol, propranolol, timolol)
7. Calcium channel blockers (diltiazem, nimodipine, verapamil)
8. Nonsteroidal anti-inflammatory drugs (aspirin, fenopofen, flurbiprofen, mefenamic acid, ibuprofen, ketoprofen, naproxen/naproxen sodium)
9. Serotonin antagonists (cyproheptadine, methysergide)
10. Other agents, such as feverfew, magnesium and vitamin B2

MAJOR OUTCOMES CONSIDERED

- Clinical and statistical efficacy of medications in treating and preventing migraine headaches
- Adverse effects of migraine medications

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level I. Independent, blind comparison with a "gold standard" of anatomy, physiology, diagnosis, or prognosis among a large number of consecutive patients suspected of having the target condition.

Level II. Independent, blind comparison with a "gold standard" among a small number of consecutive patients suspected of having the target condition.

Level III. Independent, blind comparison with a "gold standard" among nonconsecutive patients suspected of having the target condition.

Level IV Included studies that did not meet criteria for at least Level III evidence.

Strength of Evidence (Quality of Evidence)

Grade A. Multiple well-designed randomized clinical trials, directly relevant to the recommendation, yielded a consistent pattern of findings.

Grade B. Some evidence from randomized clinical trials supported the recommendation, but the scientific support was not optimal. For instance, few randomized trials existed, the trials that did exist were somewhat inconsistent, or the trials were not directly relevant to the recommendation. An example of the last point would be the case where trials were conducted using a study group that differed from the target group of the recommendation.

Grade C. The United States Headache Consortium achieved consensus on the recommendation in the absence of relevant randomized controlled trials.

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Strength of Evidence (Quality of Evidence)

Grade A. Multiple well-designed randomized clinical trials, directly relevant to the recommendation, yielded a consistent pattern of findings.

Grade B. Some evidence from randomized clinical trials supported the recommendation, but the scientific support was not optimal. For instance, few randomized trials existed, the trials that did exist were somewhat inconsistent, or the trials were not directly relevant to the recommendation. An example of the last point would be the case where trials were conducted using a study group that differed from the target group of the recommendation.

Grade C. The United States Headache Consortium achieved consensus on the recommendation in the absence of relevant randomized controlled trials.

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

The guidelines were approved by the Quality Standards Subcommittee on April 1, 2000, by the Practice Committee on May 3, 2000, and by the American Academy of Neurology Board of Directors on June 9, 2000.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Levels of evidence ratings, I-IV, and the strength of evidence (Grade A, Grade B, Grade C) are defined at the end of the "Major Recommendations" field.

Diagnosis of Migraine

The 1988 International Headache Society (IHS) classification of headache system is almost universally accepted and has become the basis for headache classification in the International Classification of Diseases (ICD-10b). Migraine is a chronic condition with recurrent episodic attacks. Its characteristics vary among patients and often among attacks in a single patient. To diagnose migraine, it is necessary to exclude secondary headache causes and then determine whether the patient has any other coexisting primary headache (e.g., tension-type headache). Testing is not recommended if the individual is not significantly more likely than anyone else in the general population to have a significant abnormality. Testing should be avoided if it will not lead to a change in management. However, testing

that normally may not be recommended as a population policy may make sense at an individual level. Exceptions can be considered for patients who are disabled by their fear of serious pathology or for patients about whom the provider is suspicious even in the absence of known predictors of abnormalities on neuroimaging studies (red flags). (In the acute headache setting, which was outside of the original guidelines, risk factors for intracranial pathology include acute onset, occipitounuchal location, age >55 years, associated symptoms, and an abnormal neurologic examination. Headache type, severity, characteristics, or duration were not risk factors.)

There was insufficient published clinical research to support evidence-based guidelines for any diagnostic testing other than neuroimaging. Previous reports that reviewed the evidence on the role of electroencephalography (EEG) found that it is not indicated in the routine evaluation of headache.

The following symptoms significantly increased the odds of finding a significant abnormality on neuroimaging in patients with nonacute headache:

- Rapidly increasing headache frequency
- History of lack of coordination
- History of localized neurologic signs or a history such as subjective numbness or tingling
- History of headache causing awakening from sleep (although this can occur with migraine and cluster headache)

The absence of these symptoms did not significantly lower the odds of finding a significant abnormality on neuroimaging.

Neuroimaging recommendations for nonacute headache are as follows:

- Consider neuroimaging in:
 - Patients with an unexplained abnormal finding on the neurologic examination (Grade B)
- Patients with atypical headache features or headaches that do not fulfill the strict definition of migraine or other primary headache disorder (or have some additional risk factor, such as immune deficiency), when a lower threshold for neuroimaging may be applied (Grade C)
- Neuroimaging is not usually warranted in patients with migraine and a normal neurologic examination (Grade B)
- No evidence-based recommendations are established for the following:
 - Presence or absence of neurologic symptoms (Grade C)
 - Tension-type headache (Grade C)
 - Relative sensitivity of magnetic resonance imaging (MRI) as compared with computed tomography (CT) in the evaluation of migraine or other nonacute headache (Grade C)

Treatment of Migraine

Migraine varies in frequency, duration, and disability among sufferers and between attacks. It is appropriate to link the intensity of care with the level of disability and symptoms such as nausea and vomiting (stratified care) for the acute treatment of symptoms of an ongoing attack. It is not appropriate to continue ineffective or poorly tolerated medication in a sequential and arbitrary manner (step care). Consider preventive treatment (given on an ongoing basis whether or not an attack is present) for those patients whose migraine has a to acute care, or where the frequency of migraine attacks is such that the reliance on acute care medications would increase the potential for drug-induced (rebound) headache. The goals of long-term migraine treatment, both pharmacologic and nonpharmacologic, are to:

- Reduce attack frequency, severity, and disability
- Reduce reliance on poorly tolerated, ineffective, or unwanted acute pharmacotherapies
- Improve quality of life
- Avoid acute headache medication escalation
- Educate and enable patients to manage their disease to enhance personal control of their migraine
- Reduce headache-related distress and psychological symptoms

Behavioral and physical interventions are used for preventing migraine episodes rather than for alleviating symptoms once an attack has begun. Although these modalities may be effective as monotherapy, they are more commonly used in conjunction with pharmacologic management.

General Principles of Management

- Establish a diagnosis.
- Educate migraine sufferers about their condition and its treatment. Discuss the rationale for a particular treatment, how to use it, and what adverse events are likely.
- Establish realistic patient expectations by setting appropriate goals and discussing the expected benefits of therapy and how long it will take to achieve them. Empower the patients to be actively involved in their own management by encouraging patients to track their own progress through the use of diary cards, flow charts, headache calendars, and forms for tracking days of disability or missed work, school, or family activities. Treatment choice depends on the frequency and severity of attacks, the presence and degree of temporary disability, and associated symptoms such as nausea and vomiting.
- Create a formal management plan and individualize management: consider the patient's response to, and tolerance for, specific medications. Consider comorbidity/coexisting conditions. Coexisting conditions (such as heart disease, pregnancy, and uncontrolled hypertension) need to be ascertained as they may limit treatment choices.
- Encourage the patient to identify and avoid triggers.

Acute Treatment

Goals of acute migraine treatment are as follows:

1. Treat attacks rapidly and consistently without recurrence.
2. Restore the patient's ability to function.
3. Minimize the use of back-up and rescue medications. (A rescue medication is used at home when other treatments fail and permits the patient to avoid a visit to the physician's office or emergency department.)
4. Optimize self-care and reduce subsequent use of resources.
5. Be cost-effective for overall management.
6. Have minimal or no adverse events.

To meet these goals:

- Use migraine-specific agents (triptans, dihydroergotamine [DHE]) in patients with moderate or severe migraine or whose mild-to-moderate headaches respond poorly to nonsteroidal anti-inflammatory drugs (NSAIDs) or combinations such as aspirin plus acetaminophen plus caffeine. Failure to use an effective treatment promptly may increase pain, disability, and the impact of the headache.
- Select a nonoral route of administration for patients with migraine associated with severe nausea or vomiting. Antiemetics should not be restricted to patients who are vomiting or likely to vomit. Nausea itself is one of the most aversive and disabling symptoms of a migraine attack and should be treated appropriately.
- Consider a self-administered rescue medication for patients with severe migraine who do not respond to (or fail) other treatments.
- Guard against medication-overuse headache ("rebound headache" or "drug-induced headache"). Frequent use of acute medications (ergotamine [not dihydroergotamine], opiates, triptans, simple analgesics, and mixed analgesics containing butalbital, caffeine, or isometheptene) is generally thought to cause medication-overuse headache. Many experts limit acute therapy to two headache days per week on a regular basis. Patients with medication over-use should use preventive therapy.

Evidence-based Recommendations for Acute Treatment of Migraine

Note: A summary of evidence for treatment of acute attacks of migraine is presented in table 1 of the original guideline document. Table 2 in the original guideline document provides a summary of acute therapies for migraine.

Specific Medications

Triptans (Serotonin_{1B/1D} Receptor Agonists)

- Naratriptan, rizatriptan, sumatriptan, and zolmitriptan. Triptans are effective and relatively safe for the acute treatment of migraine headaches and are an appropriate initial treatment choice in patients with moderate to severe migraine who have no contraindications for its use (Grade A).
- Initial treatment with any triptan is a reasonable choice when the headache is moderate to severe or in migraine of any severity when nonspecific medication has failed to provide adequate relief in the past (Grade C).
- Patients with nausea and vomiting may be given intranasal or subcutaneous sumatriptan (Grade C).

Ergot Alkaloids and Derivatives

- Ergotamine per os or per rectum (PO/PR) (and caffeine combination) may be considered in the treatment of selected patients with moderate to severe migraine (Grade B).
- Dihydroergotamine nasal spray is safe and effective for the treatment of acute migraine attacks and should be considered for use in patients with moderate to severe migraine (Grade A).
- Dihydroergotamine subcutaneous/intravenous/intramuscular (SC/IV/IM) and nasal spray may be given to patients with nausea and vomiting (Grade C). Dihydroergotamine subcutaneous, intramuscular, and nasal spray are reasonable initial treatment choices when the headache is moderate to severe, or in migraine of any severity when nonspecific medication has failed to provide adequate relief in the past (Grade C).
- Dihydroergotamine intramuscular, subcutaneous may be considered in patients with moderate to severe migraine (Grade B).
- Dihydroergotamine intravenous plus antiemetics intravenous is an appropriate treatment choice for patients with severe migraine (Grade B).

Nonspecific Medications

Antiemetics

- Oral antiemetics are an adjunct to treat nausea associated with migraine (Grade C).
- Metoclopramide intramuscular/intravenous is an adjunct to control nausea (Grade C) and may be considered as intravenous monotherapy for migraine pain relief (Grade B).
- Prochlorperazine intravenous, intramuscular, and per rectum may be a therapeutic choice for migraine in the appropriate setting (Grade B).
- Prochlorperazine per rectum is an adjunct in the treatment of acute migraine with nausea and vomiting (Grade C).
- Chlorpromazine intravenous may be a therapeutic choice for migraine in the appropriate setting (Grade B).
- Serotonin receptor (5-HT₃) antagonists are not effective as monotherapy for migraine pain relief (Grade B), but may be considered as adjunct therapy to control nausea in selected patients with migraine attacks (Grade C).

Nonsteroidal Anti-inflammatory Drugs (NSAIDs), Nonopiate Analgesics, and Combination Analgesics

- Acetaminophen, alone, is not recommended for migraine (Grade B).
- Nonsteroidal anti-inflammatory drugs (oral) and combination analgesics containing caffeine are a reasonable first-line treatment choice for mild to moderate migraine attacks or severe attacks that have been responsive in the past to similar nonsteroidal anti-inflammatory drugs or nonopiate analgesics (Grade A). Ketorolac intramuscular is an option that may be used in a physician-supervised setting, although conclusions regarding clinical efficacy cannot be made at this time (Grade C).

Butalbital-containing Analgesics

Limit and carefully monitor their use based on overuse, medication-overuse headache, and withdrawal concerns (Grade B).

Opiate Analgesics

- Butorphanol nasal spray is a treatment option for some patients with migraine (Grade A). Butorphanol may be considered when other medications cannot be used or as a rescue medication when significant sedation would not jeopardize the patient (Grade C). Butorphanol is widely used despite the established risk of overuse and dependence. Special attention should be given to these clinical concerns.
- Parenteral opiates are a rescue therapy for acute migraine when sedation side effects will not put the patient at risk and when the risk abuse has been addressed (Grade B).
- Consider parenteral and oral combination use in acute migraine only when the risk of abuse has been addressed and sedation will not put the patient at risk (Grade A).

Other Medications

- Isometheptene and isometheptene combination agents may be a reasonable choice for patients with mild-to-moderate headache (Grade B).
- Corticosteroids (dexamethasone or hydrocortisone) are a treatment choice for rescue therapy for patients with status migrainosus (Grade C).
- Evidence is insufficient at this time to establish a defined role for intranasal lidocaine or lidocaine intravenous in the management of acute migraine headache (Grade B).

Preventive Treatment

Tables 3 and 4 in the original guideline document summarize preventive therapies for migraine. The goals of migraine preventive therapy are to: 1) reduce attack frequency, severity, and duration; 2) improve responsiveness to treatment of acute attacks; and 3) improve function and reduce disability. One or more of the following helps guide management decisions on the use of preventive therapies:

- Recurring migraines that, in the patients' opinion, significantly interfere with their daily routines, despite acute treatment
- Frequent headaches
- Contraindication to or failure or overuse of acute therapies
- Adverse events with acute therapies
- The cost of both acute and preventive therapies
- Patient preference
- Presence of uncommon migraine conditions, including hemiplegic migraine, basilar migraine, migraine with prolonged aura, or migrainous infarction (to prevent neurologic damage – as based on expert consensus)

These consensus-based principles of care will enhance the success of preventive treatment. Consider nonpharmacologic therapies and take patient preference into consideration.

1. Medication use:
 - A. Initiate therapy with medications that have the highest level of evidence-based efficacy.
 - B. Initiate therapy with the lowest effective dose of the drug. Increase it slowly until clinical benefits are achieved in the absence of, or until limited by, adverse events.
 - C. Give each drug an adequate trial. It may take 2 to 3 months to achieve clinical benefit.
 - D. Avoid interfering medications (e.g., overuse of acute medications).
 - E. Use of a long-acting formulation may improve compliance.
2. Evaluation:
 - A. Monitor the patient's headache through a headache diary.
 - B. Re-evaluate therapy. If after 3 to 6 months headaches are well controlled, consider tapering or discontinuing treatment.
3. Take coexisting conditions into account. Some (co-morbid/ coexisting) conditions are more common in persons with migraine: stroke, myocardial infarction, Raynaud's phenomenon, epilepsy, affective and anxiety disorders. These conditions present both treatment opportunities and limitations:
 - A. Select a drug that will treat the coexistent condition and migraine, if possible.
 - B. Establish that the treatments being used for migraine are not contraindicated for the co-existent disease.
 - C. Establish that the treatments being used for coexistent conditions do not exacerbate migraine.
 - D. Beware of all drug interactions.
4. Direct special attention to women who are pregnant or want to become pregnant. Preventive medications may have teratogenic effects. If treatment is absolutely necessary, select a treatment with the lowest risk of adverse effects to the fetus.
5. Many migraine patients try nonpharmacologic treatment to manage their headaches before they begin drug therapy or concurrently with drug therapy. Behavioral treatments are classified into three broad categories: relaxation training, biofeedback therapy, and cognitive-behavioral training (stress-management training). Physical treatment includes acupuncture, cervical manipulation, and mobilization therapy. These are treatment options for headache sufferers who have one or more of the following characteristics:
 - A. Patient preference for nonpharmacologic interventions
 - B. Poor tolerance to specific pharmacologic treatments
 - C. Medical contraindications for specific pharmacologic treatments
 - D. Insufficient or no response to pharmacologic treatment
 - E. Pregnancy, planned pregnancy, or nursing
 - F. History of long-term, frequent, or excessive use of analgesic or acute medications that can aggravate headache problems (or lead to decreased responsiveness to other pharmacotherapies)
 - G. Significant stress or deficient stress-coping skills

Cognitive and Behavioral Treatment Recommendations for Migraine

- Relaxation training, thermal biofeedback combined with relaxation training, electromyographic biofeedback, and cognitive-behavioral therapy may be considered as treatment options for prevention of migraine (Grade A).

Specific recommendations regarding which of these to use for specific patients cannot be made.

- Behavioral therapy may be combined with preventive drug therapy to achieve additional clinical improvement for migraine relief (Grade B).
- Evidence-based treatment recommendations regarding the use of hypnosis, acupuncture, transcutaneous electrical nerve stimulation (TENS), chiropractic or osteopathic cervical manipulation, occlusal adjustment, and hyperbaric oxygen as preventive or acute therapy for migraine are not yet possible.

Pharmacologic Preventive Therapy

Individual medications have been put into treatment groups based on their established clinical efficacy, significant adverse events, safety profile, and clinical experience of the United States Headache Consortium participants:

Group 1. Medications with proven high efficacy and mild to moderate adverse events.

Group 2. Medications with lower efficacy (i.e., limited number of studies, studies reporting conflicting results, efficacy suggesting only "modest" improvement) and mild to moderate adverse events.

Group 3. Medication use based on opinion, not randomized controlled trials.

- a. Low to moderate adverse events
- b. Frequent or severe adverse events (or safety concerns) or complex management issues

Group 4. Medication with proven efficacy but frequent or severe adverse events (or safety concerns), or complex management issues.

Group 5. Medications proven to have limited or no efficacy.

Definitions:

Levels of Evidence

Level I. Independent, blind comparison with a "gold standard" of anatomy, physiology, diagnosis, or prognosis among a large number of consecutive patients suspected of having the target condition.

Level II. Independent, blind comparison with a "gold standard" among a small number of consecutive patients suspected of having the target condition.

Level III. Independent, blind comparison with a "gold standard" among nonconsecutive patients suspected of having the target condition.

Level IV. Included studies that did not meet criteria for at least Level III evidence.

Strength of Evidence (Quality of Evidence)

Grade A. Multiple well-designed, randomized clinical trials, directly relevant to the recommendation, yielded a consistent pattern of findings.

Grade B. Some evidence from randomized clinical trials supported the recommendation, but the scientific support was not optimal. For instance, few randomized trials existed, the trials that did exist were somewhat inconsistent, or the trials were not directly relevant to the recommendation. An example of the last point would be the case where trials were conducted using a study group that differed from the target group of the recommendation.

Grade C. The United States Headache Consortium achieved consensus on the recommendation in the absence of relevant randomized controlled trials.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The recommendations are based on a review of the literature. The type of supporting evidence is identified and graded for neuroimaging recommendations and for selected recommendations for acute and preventive treatment of migraine headache (see "Major Recommendations" field).

Evidence supporting the acute treatment and preventive treatment were exclusively Class I studies; however, due to the lack of published Class I evidence, Class II and Class III studies were included for analysis of diagnostic testing and utility of neuroimaging in migraine.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Appropriate use of neuroimaging in diagnosis of nonacute headache
- Reduction in migraine attack frequency, severity, and disability
- Improvement in the quality of life of the patient
- Appropriate use of medication
- Reduction in headache-related distress and psychological symptoms
- Improvement in patient competency to manage headaches through proper education in self-management

Subgroups of Patients Most Likely to Benefit

Patients with moderate to severe migraine headaches

POTENTIAL HARMS

- Most medications used to prevent and treat migraine cause side effects, although frequency varies with the type of medication (see Tables 1, 2, 3 in the original guideline document)
- Medication-overuse headache ("drug-induced headache" or "rebound headache")
- Risk of overuse and dependence
- Drug interactions (with therapies for coexistent conditions)
- Sedation with opiate analgesics
- Preventive medications can have teratogenic effects

Subgroups of Patients Most Likely to Experience Harm

Pregnant women or women who might become pregnant, since preventive treatments may have teratogenic effects

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This statement is provided as an educational service of the American Academy of Neurology. It is based on an assessment of current scientific and clinical information. It is not intended to include all possible proper methods of care for a particular neurologic problem or all legitimate criteria for choosing to use a specific procedure. Neither is it intended to exclude any reasonable alternative methodologies. The American Academy of Neurology recognizes that specific patient care decisions are the prerogative of the patient and the physician caring for the patient, based on all of the circumstances involved.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

RELATED QUALITY TOOLS

- [American Academy of Neurology \(AAN\) Guideline Summary for Clinicians: Migraine Headache](#)
- [American Academy of Neurology \(AAN\) Guideline Summary for Patients and Their Families: Migraine Headache](#)
- [American Academy of Neurology \(AAN\) Encounter Kit for Headache. Recommendations for use of Dihydroergotamine mesylate \(DHE\) in Migraine](#)

- [American Academy of Neurology \(AAN\) Encounter Kit for Headache. Recommendations on Behavioral and Physical Treatments for Migraine](#)
- [American Academy of Neurology \(AAN\) Encounter Kit for Headache. Imaging Algorithm - Non-Acute Headache -- Greater than Four Weeks Duration and Normal Neurologic Exam](#)
- [American Academy of Neurology \(AAN\) Encounter Kit for Headache. Imaging Algorithm - Non-Acute Headache -- Greater than Four Weeks Duration](#)
- [American Academy of Neurology \(AAN\) Encounter Kit for Headache. Co-Existent Disease in Migraine Matrix](#)
- [American Academy of Neurology \(AAN\) Encounter Kit for Headache. Patient Headache Diary](#)
- [American Academy of Neurology \(AAN\) Encounter Kit for Headache. Patient Headache Trigger Tracker](#)
- [American Academy of Neurology \(AAN\) Encounter Kit for Headache. Mnemonic Screening Tools](#)
- [American Academy of Neurology \(AAN\) Encounter Kit for Headache. Migraine in a Minute](#)

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT
CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: Guideline was not adapted from another source.

DATE RELEASED

2000 Sep

GUIDELINE DEVELOPER(S)

American Academy of Neurology - Medical Specialty Society

SOURCE(S) OF FUNDING

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GUIDELINE COMMITTEE

United States Headache Consortium

Quality Standards Subcommittee, American Academy of Neurology

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Author: Stephen D. Silberstein, MD, FACP, for the US Headache Consortium

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available from the [American Academy of Neurology \(AAN\) Web site](#).

Print copies: Available from the AAN Member Services Center, (800) 879-1960, or from AAN, 1080 Montreal Avenue, St. Paul, MN 55116.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- American Academy of Neurology (AAN) Encounter Kit for Headache.

Note: The AAN Encounter Kit for Headache includes: Physician decision support tools; patient education tools; patient assessment tools; and business and office support tools. Electronic copies: Available from the [American Academy of Neurology \(AAN\) Web site](#).

- American Academy of Neurology (AAN) guideline summary for clinicians: migraine headache. St. Paul (MN): American Academy of Neurology, 2000 Sep. Electronic copies: Available from the [AAN Web site](#).
- AAN guideline development process. St. Paul (MN): American Academy of Neurology. Electronic copies: Available from the [AAN Web site](#).

PATIENT RESOURCES

The following are available:

- Patient headache diary
- Patient headache trigger tracker

Electronic copies: Available in Portable Document Format (PDF) from the [American Academy of Neurology \(AAN\) Web site](#).

- American Academy of Neurology (AAN) guideline summary for patients and their families: migraine headache. St. Paul (MN): American Academy of Neurology, 2000 Sep.

Electronic copies: Available from the [AAN Web site](#).

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

This NGC summary was completed by ECRI on February 12, 2002. The information was verified by the guideline developer on September 5, 2003.

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