



Complete Summary

GUIDELINE TITLE

Special treatment situations: inpatient headache treatment. Standards of care for headache diagnosis and treatment.

BIBLIOGRAPHIC SOURCE(S)

Freitag F. Special treatment situations: inpatient headache treatment. In: Standards of care for headache diagnosis and treatment. Chicago (IL): National Headache Foundation; 2004. p. 93-7. [7 references]

GUIDELINE STATUS

This is the current release of the guideline.

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SCOPE

DISEASE/CONDITION(S)

Headache including:

- Migraine
- Chronic daily headache (analgesic rebound)
- Cluster headache

GUIDELINE CATEGORY

Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Neurology

INTENDED USERS

Health Care Providers
Physicians

GUIDELINE OBJECTIVE(S)

- To improve the medical treatment of headache
- To provide recommendations for the management of headache patients who require inpatient treatment

TARGET POPULATION

Headache patients who require inpatient treatment

INTERVENTIONS AND PRACTICES CONSIDERED

Inpatient treatment

1. Metoclopramide or other antiemetic
2. Intravenous (IV) dihydroergotamine (DHE)
3. IV neuroleptics
 - Chlorpromazine
 - Droperidol
 - Prochlorperazine
 - Corticosteroids
4. IV valproic acid
5. IV ketorolac
6. IV analgesics
7. Muscle relaxants
8. Patient counseling
9. Behavioral methods of pain control

MAJOR OUTCOMES CONSIDERED

- Headache improvement
- Emergency department visits
- Utilization of new medication
- Repeat hospitalization

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases
Searches of Unpublished Data

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

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review
Review of Published Meta-Analyses

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The guidelines presented in this monograph represent the consensus of an advisory panel of practitioners chosen by the National Headache Foundation (NHF) for their expertise. In addition to incorporating the US Headache Consortium's recommendations, their conclusions reflect clinical experience and the most recent medical literature.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

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

METHOD OF GUIDELINE VALIDATION

Not stated

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not applicable

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Inpatient Headache Treatment

Although inpatient management of headache is needed relatively infrequently, when the treatment regimen is complex and/or there are concomitant medical problems, initiation of treatment in an outpatient setting may not be feasible. As a result, overall hospital rates for migraineurs have been reported to be twice as high as overall rates for a normal population.

Compared with outpatient treatment, inpatient management is more costly for the patient, the employer, and the insurance industry. Therefore, clinicians should consider several factors when deciding on a course of therapy. Seven major factors have been identified for determining whether the indication is for treatment in an outpatient or an inpatient setting (see table below).

Outpatient versus Inpatient Treatment: Factors to Consider

- Degree and intractability of pain
- Refractoriness to established regimens
- Need for supportive medical measures
- Degree of toxicity and drug dependence
- Degree of coping ability
- Psychological health considerations
- Comorbid medical disease considerations

Inpatient treatment of headache may be needed in selected patients. For example, hospitalization, followed by careful outpatient follow-up, may increase the chance of a successful treatment outcome in patients with numerous failed attempts at outpatient treatment. Treatment situations requiring repetitive parenteral therapy, such as status migraine, are probably the most common reason for hospitalization. Hospitalization may be necessary if a patient is severely dehydrated or if a secondary or organic cause of headache is confirmed by appropriate testing. About 4% of the population has chronic daily headache. Some of these patients, because of their headache severity, their refractoriness to standard therapies, and their comorbid medical and psychiatric disorders, require a comprehensive headache treatment program initiated in an inpatient program. Occasionally, initial treatment may aggravate the condition or cause severe adverse reactions, in which case inpatient treatment may be necessary. Similarly, the use of drugs that may interact with each other, such as monoamine oxidase inhibitors and beta-blockers, demands careful observation and may require hospitalization.

Patients who overuse medication and are unable to discontinue such use as an outpatient, which unfortunately occurs in the majority of cases, can benefit from safe and rapid detoxification along with adjunctive management of the underlying migraine headache. In a recent survey of 473 headache-treating physicians, 30 to 60% of patients required inpatient treatment for withdrawal of medication.

The use of repetitive intravenous (IV) dihydroergotamine (DHE) (Refer to table 9.2 of the original guideline document) may help initiate rapid control of the headaches. Metoclopramide, 10 mg IV, can be coadministered to control nausea. Intravenous neuroleptics, such as chlorpromazine, droperidol, and prochlorperazine, and/or corticosteroids may be used for patients for whom DHE is not an option. Other alternatives include the repetitive administration of IV valproic acid or the repetitive use of IV ketorolac, other analgesics, or muscle relaxants. These agents may also supplement repetitive IV DHE in refractory patients.

In a meta-analysis of outcomes of inpatient hospitalization, it was reported that up to 91% of patients reported significant (>50%) improvement in symptoms at follow-up intervals up to 6 months; at intervals greater than 6 months, up to 71% of patients reported significant improvement, as shown in Table 9.3 of the original guideline document; outcomes in rebound and cluster patients are shown in Tables 9.4 and 9.5 of the original guideline document, respectively.

Another recent study examined a range of patients attending a tertiary headache center. Although this study did not specifically address the benefits of hospitalization, preliminary data assessing the correlation of health care utilization with the Migraine Disability Assessment Score (MIDAS), demonstrated significant reductions in emergency department visits and utilization of new medication both over-the-counter and prescription. Changes in MIDAS scores correlated well with all measured parameters, except repeat hospitalization.

Finally, clinicians should not underestimate the importance of appropriate patient counseling. Taking time during hospitalization to educate patients about behavioral methods of pain control as well as working with patients to establish realistic acute and preventive outpatient treatment plans can increase the chances of a successful outcome.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

In addition to incorporating the US Headache Consortium's recommendations, the conclusions reflect clinical experience and the most recent medical literature.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Hospitalization, followed by careful outpatient follow-up, may increase the chance of a successful treatment outcome in patients with numerous failed attempts at outpatient treatment.
- Taking time during hospitalization to educate patients about behavioral methods of pain control as well as working with patients to establish realistic acute and preventive outpatient treatment plans can increase the chances of a successful outcome.

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

Drug therapy is constantly evolving as new research, clinical trials, case reports, and opinions are published. Many of the drugs recommended in these guidelines are not approved by the US Food and Drug Administration (FDA) for treatment of headache, nor are they necessarily the same as those therapies recommended by the manufacturer for labeled indications. Their use in headache, however, may be supported by the scientific literature and by the authors' clinical experiences. While efforts have been made to ensure accuracy, the authors and publisher do not assume responsibility for the consistent updating of available information for these guidelines, nor for any errors or omissions, nor for any consequences thereof. The onus is on the practitioner to evaluate recommendations in light of the clinical condition of the patient and recent medical literature. The authors advise the practitioner to consult other sources, especially the manufacturers' warnings and precautions, before prescribing any drug with which they are unfamiliar. Practitioners are also advised that while these guidelines will address the needs of many patients, there will be circumstances calling for exceptions to these recommendations.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Chart Documentation/Checklists/Forms
Foreign Language Translations
Patient Resources
Slide Presentation

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Freitag F. Special treatment situations: inpatient headache treatment. In: Standards of care for headache diagnosis and treatment. Chicago (IL): National Headache Foundation; 2004. p. 93-7. [7 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2004

GUIDELINE DEVELOPER(S)

National Headache Foundation - Private Nonprofit Organization

SOURCE(S) OF FUNDING

National Headache Foundation

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Author: Fred Freitag, DO

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: None available

Print copies: Available from the National Headache Foundation, 820 N. Orleans, Suite 218, Chicago, IL 60610; Phone: (888) NHF-5552; Web address: www.headaches.org

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- The complete headache chart. Chicago (IL): National Headache Foundation (NHF); 2 p. Electronic copies available in Portable Document Format (PDF) from the [National Headache Foundation Web site](http://www.headaches.org)
- National Headache Foundation fact sheet. Chicago (IL): National Headache Foundation (NHF); 2004 Oct. 2 p. Electronic copies available in Portable Document Format (PDF) from the [National Headache Foundation Web site](http://www.headaches.org).

Print copies: Available from the National Headache Foundation, 820 N. Orleans, Suite 218, Chicago, IL 60610; Phone: (888) NHF-5552; Web address: www.headaches.org

PATIENT RESOURCES

The National Headache Foundation (NHF) has created a variety of educational resources for patients, including informative brochures, a patient diary for migraines, Power Point presentations, and patient guides; many of these resources are available in both Spanish and English. Some of these items are available as print copies for purchase through the [NHF online store](http://www.headaches.org). Electronic versions of other resources are available through the consumer education section of the [NHF Web site](http://www.headaches.org).

Print copies: Available from the National Headache Foundation, 820 N. Orleans, Suite 218, Chicago, IL 60610; Phone: (888) NHF-5552; Web address: www.headaches.org.

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 April 12, 2005. The information was verified by the guideline developer on April 26, 2005.

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