



Migraine Prevention Summit

ISSUE No. 1 Overview of Migraine

In this issue,
a new understanding
of migraine as a
chronic disease.

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NHF Convenes Interdisciplinary Panel—the *Migraine Prevention Summit*

The National Headache Foundation (NHF) convened an interdisciplinary panel in Chicago, Illinois, to discuss recent developments in the understanding of migraine and current treatment strategies. *Migraine Prevention Summit* faculty panelists included national experts in migraine from a variety of disciplines: a neurologist, a primary care physician, a pharmacist, a physician assistant, and a nurse practitioner, as well as a patient with migraine. Panelists discussed the current understanding of migraine as a chronic disease and strategies for diagnosis, treatment, and prevention of migraine.

This newsletter represents the first issue in a series of proceedings reporting the outcomes of this important *Migraine Prevention Summit*. In this issue, a new understanding of migraine as a chronic disease characterized by neuronal hyperexcitability and the need to consider preventive treatment are discussed. In addition, the consensus statement of the *Migraine Prevention Summit* panelists is included.

Upcoming issues include an overview of the diagnosis and treatment of migraine, clinical perspectives on determining level of disability, a case study with patient commentary, guidelines for communicating with patients with migraine, and a review of the advances in preventive therapies for migraine. Look for upcoming issues over the next several months or visit the NHF online for NHF *Migraine Prevention Summit* proceedings and other educational materials at www.headaches.org.

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Recent Results Highlight Need for Prevention

Recently reported results of the American Migraine Prevalence and Prevention (AMPP) study—the largest study of headache sufferers ever reported with results in more than 162,000 people—demonstrated the high prevalence of migraine, the impairment experienced by patients, and the underuse of preventive therapies.^{1,3} While migraine affects 17% of women and 6% of men, only 56% of patients self-report their diagnosis. Nearly half treat migraine with over-the-counter medications only, while 20% use prescription medications. Another 29% use both over-the-counter and prescription medications.² The study found that nearly 40% of patients may benefit from preventive therapy, although only 13% currently use a preventive medication.¹ Nearly half of all migraine patients are not aware of preventive medications as a treatment option.⁴

Nearly 40% of patients could benefit from prevention, while only 13% are currently receiving migraine-specific preventive treatment.¹

Patients who should be offered preventive therapy according to AMPP study guidelines exhibit significantly increased disability (mean MIDAS score of 23 versus 8.2 and 3.6 among patients in whom preventive therapy should be considered or is not indicated, respectively).³ According to AMPP results, 20% of patients overall report moderate or severe disability. Level of impairment is also high, and 54% of patients are severely impaired or require bed rest during their severe headaches.¹

Guidelines for initiating preventive therapy*⁵⁻⁷

- Frequency of headache ≥ 2 /month, with disability ≥ 3 d/month[†]
- Recurring migraines that, in the patient's opinion, significantly interfere with daily routines
- Use of acute medications more than 2 times a week
- Acute medications are contraindicated, not tolerated, or ineffective*

*Adapted from the US Headache Consortium Guidelines for the Management of Migraines.

Members include the American Academy of Neurology, the American Academy of Family Physicians, and the American College of Physicians—American Society of Internal Medicine.
†Even patients with <2 attacks/month may experience disability severe enough to require preventive treatment.

What Is Migraine?

Understanding of migraine has evolved substantially over the past 10-15 years, influencing approaches to management of the disease. Previously, migraine was considered an episodic pain disorder, requiring medication to treat the primary symptom of head pain.⁴ The introduction of the triptans increased understanding of the mechanism of the disease, and migraine was recognized as a disorder of the trigemino-vascular system.⁸



"I now realize that migraine is something I have to treat as an entire disease.

The headaches are not something I want to just stop when I get them—I want to prevent them from happening."⁴

— Debbie Sacchetti, patient

Most recently, migraine is seen as a chronic disorder with episodic manifestations, which, in some cases, can be progressive.⁹ Several studies support the view of migraine as a manifestation of chronic neuronal hyperexcitability. Identification of 3 genetic biomarkers in a rare form of migraine (familial hemiplegic migraine) is improving the understanding of the pathophysiology of migraine. Functional studies show these mutations result in cascade effects that may allow neurons to depolarize more easily and facilitate cortical spreading depression.¹⁰ In addition, separate research using transcranial magnetic stimulation shows patients with migraine exhibit high cortical excitability, and increasing hyperexcitability correlates with more frequent migraine attacks.¹¹ Finally, results of a neuroimaging study

link increased frequency of attacks with a greater probability of finding lesions in the brain, suggesting that migraine may progress as a disease in some patients.¹²

Taken together, these results suggest that the threshold for attacks is lowered in the migraine brain, not just on days when attacks take place but every day, and optimal management may require more than acute medications to treat individual headache attacks.⁴ Thus, current treatment approaches may include the use of preventive therapies to treat the hyperexcitability of the migraine brain—to maintain normal neuronal function and minimize migraine attacks.^{4,13} Hypersensitivity of the nervous system may also manifest as other disorders, including depression, anxiety, non-head pain, fatigue, and a variety of other somatic complaints, which may occur between headache attacks after years of episodic migraine.¹⁴

"The difference between migraine patients and the general population is simply that headaches are more easily initiated, because the brain lives in a hyperexcitable or sensitive state in an ongoing basis."⁴ — Richard B. Lipton, MD

Preventive therapy may also decrease the risk of disease progression by reducing the frequency of attacks.¹⁴ It may someday be possible to identify patients at risk for disease progression, who may be candidates for preventive interventions.⁴

"Trying to devise strategies for identifying people at risk for disease progression and intervening to prevent progression also makes sense."⁴ — Richard B. Lipton, MD

The Impact of Migraine on Patients

Migraine is a common disorder, affecting nearly 30 million patients in the US.^{1,15} Results from the recent AMPP study indicate that 12% of people age ≥ 12 years suffer from migraine, with approximately 22% of patients reporting moderate or severe disability.¹

“I think we get lost in this symptom analysis and not the pattern of headache and the impact that it’s having on people’s lives.”⁴— Roger K. Cady, MD

Migraine is most common between the ages of 15 and 55,¹⁶ affecting patients in their peak productive years and contributing to substantial financial impact of the disease. Migraine contributes \$17 billion in annual costs, including direct costs of care and indirect costs, primarily due to lost productivity (including both absenteeism and “presenteeism”).¹⁷ Total healthcare costs of families with a migraine patient are increased by 70% compared with those of a family with no migraine sufferers.¹⁸

Diagnosis, Evaluation, and Assessment of Impairment

Current standards in the diagnosis of migraine and patient evaluation include a new focus on the importance of assessing impairment due to migraine as well as the impact of migraine on a patient’s life during and in between headache attacks (the interictal burden). Disability during a migraine attack is measured in lost time at work and at home and includes an inability to participate fully in daily activities including work, household work and chores, and social and leisure activities. Interictal burden includes overall functioning between attacks as well as worry and an inability to plan daily activities due to concern that a migraine attack may occur. Probing specifically for the interictal burden of migraine may be needed, as patients may simply accept this as part of the disease and may not proactively discuss it with their healthcare professional.⁴ Strategies for improving patient communication about migraine include the use of open-ended questions—such as “Tell me how migraine affects your daily life?”—to facilitate evaluation, patient education, and adherence to treatment plans. By assessing total migraine impairment (during and between migraine attacks), healthcare professionals may uncover more patients who will accept and benefit from migraine preventive therapy.

“When I recently learned about how disruptive migraine can be, I began assessing patients for impairment and how the disease affects their lives at every evaluation.”⁴

— Christine M. Lantin, PA-C

Overview of Preventive Therapies

Current treatment options include lifestyle modification, nonpharmacologic treatments, acute therapies, and preventive therapies. Consideration of preventive therapies is based on frequency, level of disability, and disruption of daily life during and between headache attacks.

FDA - Approved Preventive Therapies for Migraine
Class
Antiepileptic drugs
Beta-blockers

“When you know a migraine is coming and you can’t stop it, it’s very frustrating, it’s very upsetting. You can’t make plans. . . I know with the family it’s going to be hard. I know I’m going to miss things.”⁴

— Debbie Sacchetti, patient

Choice of treatment is based on clinical effectiveness and tolerability profiles, with particular attention to choosing medications that are unlikely to interfere with concomitant treatments and co-morbid conditions. In addition, panelists recommended individualizing treatment plans in patients with co-morbidities to ensure that each condition is treated optimally, rather than attempting to treat migraine and other conditions with a single medication.⁴ There may be a tendency to choose a treatment for migraine that also treats the patient’s co-morbid condition. This strategy is not ideal, however, as doses for migraine

may be different from those for other conditions. Instead, healthcare professionals should design individual treatment plans to treat each medical condition with the optimal agent.⁴ Patient involvement in treatment decision-making and setting appropriate expectations for therapy are key to optimizing compliance.

Successful Management of Migraine

Primary care physicians, nurses, physician assistants, pharmacists, and specialists all serve essential roles in designing treatment plans and delivering optimal patient care. Thus, remaining familiar with the clinical presentation of migraine, being able to assess migraine-related impairment, and keeping up to date with recent advances in the diagnosis and treatment of migraine are essential for all members of the treatment team. A consensus statement represents the key findings of the *Migraine Prevention Summit* (see page 4).

Conclusion

Migraine represents a chronic condition with underlying neuronal hyperexcitability resulting in acute, episodic pain.⁹ The condition produces substantial impairment, associated with high costs in lost productivity.^{1,17} Optimal management includes behavioral modification as well as medical intervention, and both acute and preventive therapies may be needed to adequately control attacks.¹⁹

The next issue of *Migraine Prevention Summit* proceedings presents guidelines for communicating with patients with migraine. Future issues include a summary of the diagnosis and evaluation of patients with migraine and a comprehensive review of current treatment options to improve patient care.



NHF MIGRAINE PREVENTION SUMMIT CONSENSUS STATEMENT

The interdisciplinary panel developed the following consensus statement highlighting the key findings of the *Migraine Prevention Summit*.

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- Migraine is a chronic disorder, rather than an episodic disorder. Healthcare professionals treating patients with migraine must be educated about recent advances in the understanding of migraine and current treatment options.⁴
- Proper use of acute medications is essential to maximize their efficacy. Acute medications should be taken at the first sign of migraine (or during the aura, if present).⁴
- Acute medication is not always adequate to control migraine attacks. Preventive therapy should be considered in patients requiring acute medication more than 2 days per week and in those experiencing frequent disability during and between migraine attacks.^{1,4}
- Healthcare professionals need to determine patient disability and the total level of impairment migraine has on a patient's life, both during and between attacks, to better assess when patients may be appropriate candidates for preventive therapy. In addition, it is important to recognize how migraine affects other aspects of the patient's life, such as family and work life.⁴
- Preventive therapies include both medications and behavioral modifications.⁴ Patients need realistic expectations about treatment outcome, specifically time to response. Preventive therapies may take 6 weeks or longer to reach clinical effect. In addition, patients should be counseled on what side effects to expect and should be titrated slowly to the target dose.⁹
- Patients are important partners in the management of migraine. Open communication about treatment options and healthcare professional-patient support is essential to ensure treatment plans are followed. Adherence to treatment regimens, including both lifestyle changes and medications, is necessary to achieve optimal effect.⁴
- Migraine is a manageable disease. With communication and cooperation between patients and healthcare professionals, most patients can achieve greater control of their disease and reduce their disability.⁴

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