DRAFT AAN Summary for Public Comment
Practice guideline update: Migraine prevention in children and adolescents

Overview
This document is a summary of the American Academy of Neurology (AAN) draft, “Practice guideline update: Migraine prevention in children and adolescents.” The aim of this guideline is to offer guidance about the different drugs and cognitive behavioral therapy (CBT), also called “talk therapy,” used as preventive treatment to reduce how often headaches happen in children and adolescents with migraines.

The pain of a migraine attack is usually moderate to severe and may feel like a pounding or throbbing, usually get worse with activity or movement, and may be accompanied by nausea and vomiting. Some people are very sensitive to sound and light during migraine attacks. If not treated, migraines last between four hours and three days.

Migraine prevention is treatment to reduce how often it happens and how disabling it may be. Migraine prevention is usually considered when migraines are severe, happen often, and are disabling.

What is a practice guideline?
- Guidelines are summaries of what we know about different tests and treatments for health problems.
- Guidelines are based on research. When we develop guidelines, we include steps for others to weigh in. These include experts like doctors, patients, and other health providers.
- Because no two people are the same, guidelines do not tell doctors the best way to treat any one person.

This guideline is still a draft and is still being changed. This draft has not yet been reviewed or approved by the AAN Board of Directors and therefore does not represent the official position of the AAN.

What are guideline recommendations?
Guideline recommendations help guide health providers when they are working with patients, or with patients and families, to make decisions about health care.

When guideline authors write recommendations, they look at several things:
- the best medical studies
- the balance of possible benefit and possible harm from following the recommendation
- what they can expect will result from following the recommendation, or the importance of that result
- the cost or availability of the recommended test or therapy
- what patients value and prefer when they look for medical care
Terms Used in This Guideline

Placebo—a substance or action that does not have a direct biological effect due to its chemical nature, or in the case of biobehavioral therapy, no direct therapeutic effect.

Medication overuse—use of over-the-counter pain medication (inclusive of all types) for more than 15 days per month, or use of prescription medications or any combination therapies for more than 10 days per month.

What the Research Shows

The next sections summarize most of the recommendations. For the complete list of recommendations, see the full guideline at www.aan.com/practice-guidelines/home/public-comments. The strength of the recommendations is based on the information listed in Table 1.

Understanding Migraine

Many things that people do in their daily lives can affect how often migraines happen. Factors that can contribute to migraine and recurrent headache in adolescents include being overweight, caffeine and alcohol use, lack of physical activity, and tobacco exposure.

Clinicians should tell patients and families that lifestyle and behavioral factors can have an effect on how often headaches happen (Level B). Clinicians teach patients and families how to identify and change the factors that contribute to migraine (Level B).

Children and Adolescents to Consider for Preventive Migraine Treatment

Adults who have migraines that happen more than 6 days in a month are at risk of chronic migraine. Medication overuse adds to this risk. It has been suggested that clinicians consider preventive treatments for these adults. There is no evidence about these same risks in children and adolescents, but it is thought that they exist.

Clinicians should talk about preventive treatments in children and adolescents with frequent headaches or migraine-related disability or both (Level B). Clinicians should discuss the use of preventive treatments in children and adolescents with medication overuse (Level B).

What to Expect from Preventive Migraine Treatment in Children and Adolescents

Clinicians should tell patients and caregivers that most preventive medications studied for the treatment of migraine in children and adolescents do not work better than placebo, but placebo itself was effective (Level B). Clinicians should engage patients who could benefit from preventive treatment and their families in decisions about trying these treatments for an adequate but short period (minimum of 2 months), making sure to let these patients and their families know about the limits of the current evidence (Level B).

Clinicians should talk with patients and families about the evidence for using the drug amitriptyline along with cognitive behavioral therapy for migraine prevention and work with them to find providers who can offer this type of treatment (Level B). Clinicians should talk with patients and their families about the evidence for using the drug topiramate for migraine prevention in children and adolescents, including the possible side effects for this age group (Level B). Clinicians should talk about the evidence for using the drug propranolol for migraine prevention and its side effects in children and adolescents (Level B).
Balancing Benefits and Risks of Preventive Treatment
Balancing benefits and risks is important when deciding on treatments. The drugs topiramate and valproate are known to have negative effects on the development of fetuses. Using valproate during pregnancy has been linked to disorders in mental development of the offspring of these pregnancies. Taking topiramate and oral estrogen-based contraceptives at the same time may lower the effectiveness of those contraceptives. The risk of major birth defects in pregnant women with epilepsy who take antiseizure drugs is possibly by taking folic acid supplements.

When choosing migraine prevention therapy to recommend to patients of childbearing potential, clinicians must consider both the effect on development of the fetus topiramate and valproate can have as well as how medically necessary these drugs are to the patients (Level A). Clinicians who offer topiramate or valproate for migraine prevention to patients of childbearing potential must talk to these patients about potential effects these drugs can have on their fetuses while they are taking the drug as well as development of the child after they are born (Level A).

Clinicians who prescribe topiramate for migraine prevention to patients with the potential for pregnancy must tell these patients about the potential of these drugs to lower the effectiveness of estrogen-based hormonal contraceptives (Level A). Clinicians who prescribe topiramate or valproate for migraine prevention to patients of childbearing potential should tell patients about the need to use additional contraception during treatment (Level B).

Clinicians must recommend to patients of childbearing potential who take topiramate or valproate that also they take daily folic acid supplements (Level A).

Monitoring and Stopping Medication
Migraine is a long-term disorder, with unpredictable moments when it gets better and when it comes back. Patients and families often ask how long treatment will last. There is little information about when preventive treatment should be stopped, and the risk of it coming back after it has stopped varies.

From time to time, clinicians must check the effectiveness and adverse events of migraine preventive treatments they have prescribed (Level A). Clinicians should counsel patient and families about risks and benefits of stopping preventive medication once good migraine control is established (Level B).

Mental health in children and adolescents with migraine
There is some evidence that suggests that children with headache who also have negative emotional states, such as depression and anxiety may be at an increased risk of headache persistence.

Children and adolescents with migraine should be screened for mood and anxiety disorders because of the increased risk of headache persistence (Level B). In children and adolescents with migraine who also have mood and anxiety disorders, clinicians should discuss management options for the mood and anxiety disorders (Level B).
## Table 1. Definitions for Recommendation Levels

<table>
<thead>
<tr>
<th>Recommendation Level</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Strong)</td>
<td>There are very strong and compelling reasons to follow this recommendation, it is possible to follow this recommendation in almost all circumstances, and in almost all circumstances, patients would want the course of action described in the recommendation to be followed.</td>
</tr>
<tr>
<td>B (Moderate)</td>
<td>There are good and compelling reasons to follow this recommendation, it is generally possible to follow this recommendation, and in most circumstances, patients would want the course of action described in the recommendation to be followed.</td>
</tr>
<tr>
<td>C (Weak)</td>
<td>There are reasons to follow this recommendation, but the research supporting this recommendation is weak, the benefits relative to the risks is less certain, the test or treatment is costly, or only some patients would want the course of action described in the recommendation to be followed. Recommendations can be “weak” for a variety of reasons, and these reasons are described in the complete guideline.</td>
</tr>
<tr>
<td>U (None Made)</td>
<td>There is not enough research to make a recommendation and/or the balance of the benefits, harms, and costs is unknown.</td>
</tr>
<tr>
<td>R (Research Setting Only)</td>
<td>There is not enough research to make a recommendation and/or the balance of the benefits, harms, and costs is unknown, but there is a good reason to think that more research should be done. Only patients in a research study would receive the course of action.</td>
</tr>
</tbody>
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This summary was created as a tool for people without a medical background to better understand the information in the full document. People can refer to this summary when they provide their feedback during the public comment period for this draft practice guideline. The complete draft practice guideline is available at [www.aan.com/practice-guidelines/home/public-comments](http://www.aan.com/practice-guidelines/home/public-comments).

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