Overview
Migraine is common in children and adolescents. It can disrupt life activities, such as school and social functions, and have a negative effect on quality of life. Acute, or short-term, treatments for migraine focus on the headaches and related symptoms of migraine and must be carefully selected and tailored to each patient. They should address the pattern and severity of the headaches and the patient’s expectations, needs, and goals.

This document is a summary of the American Academy of Neurology (AAN) practice guideline update “Acute symptomatic treatment of migraine in children and adolescents.” The purpose of this guideline is to look at new studies since the previous 2004 guideline on acute migraine treatments in children and adolescents. The goal is to give patients and providers a summary of evidence from these studies about short-term, self-administered treatments that relieve headache pain and related symptoms.

What is a practice guideline?
A practice guideline is a document that makes recommendations (guidance statements) for clinicians (doctors and other health care professionals) regarding the use of tests to diagnose or therapies to treat a specific disease or disorder. Recommendations in practice guidelines are based on a thorough review of the medical research. The complete practice guideline describes this review of the medical research and the background for each recommendation. This guideline is in development and has not been published in final form.

What are guideline recommendations?
Guideline recommendations are meant to help guide clinicians when they are partnering with patients or patients and families to make decisions about medical care.

When guideline authors write recommendations, they consider:

- the best medical research evidence available.
- the balance of potential benefit and potential harm of following the recommendation.
- the anticipated result of following the recommendation (how important is the outcome that will result from following the recommendation).
- the cost and availability of the test, therapy, or other subject of the recommendation.

patients’ values and preferences.

Terms used in this guideline
• **Prodrome**—A symptom that happens before an active episode of a condition and indicates that the episode is starting

• **Aura**—A type of prodrome that is related to a neurologic condition. Migraine aura can affect your mind, vision, speech, movement, sense of touch, and other things related to your brain.
  - **Hemiplegic migraine aura**—Weakness on one side of your body that happens before a migraine episode
  - **Basilar migraine aura**—A type of aura in which the symptoms come from the base or both sides of the brain

• **Triptans**—A group of drugs that treat migraine headaches by affecting how certain nerves and blood vessels in your brain receive the chemical messenger serotonin. Specific triptans mentioned in the recommendations of this guideline include:
  - Almotriptan
  - Rizatriptan
  - Sumatriptan
  - Zolmitriptan

• **Ischemic vascular disease**—A disease of the blood vessels caused by a lack oxygen from the blood

• **Accessory conduction pathway**—The growth of a bundle of muscles across the heart that can abnormally affect the path of electricity that causes your heart to beat normally

**What the research shows**

This section summarizes the recommendations. The strength of the recommendations is based on the factors listed in Table 1. See the full guideline at AAN.com/practice-guidelines/home/public-comments for more information on these recommendations.

**Diagnosis**

Clinicians should diagnose a specific headache type in children and adolescents with headache (Level B) and should ask about the following topics to help give the most accurate diagnosis and best advice to the patient (Level B):

• prodrome and aura symptoms
• qualities about the headache, such as
  - when it starts
  - where it hurts
  - how much it hurts
  - how often it happens
  - how long it lasts
  - what makes it better or worse
  - what other symptoms happen with it
• activities that the headache pain prevents you from doing
• family members who have or had headaches
Treatment

Clinicians should tell patients that short-term migraine treatments are more effective when they are used earlier in the migraine attack (Level B) and should prescribe oral ibuprofen (10 mg/kg) as the first treatment for pain in children and adolescents with migraine who are aged 4-16 years (Level B).

For adolescents with migraine, clinicians should prescribe oral sumatriptan/naproxen (10/60 mg, 30/180 mg, 85/500 mg) zolmitriptan nasal spray (5 mg), sumatriptan nasal spray (20 mg), oral rizatriptan (5 mg or 10 mg), or oral almotriptan (6.25 mg or 12.5 mg) to reduce headache pain (Level B).

Clinicians should tell patients and families that different medications may need to be tried to find the one that works the best (Level B) and should tell patients and families to use the medication that the patient prefers that also provides the right balance between effective treatment and fewest side effects (Level B). If one kind of triptan does not work to relieve pain, clinicians should offer a different triptan to find the one that works the best to reduce migraine symptoms (Level B). Clinicians may prescribe a nonoral form of the medication when headache gets strong quickly, when the patient also feels nausea or vomits during the headache, or when oral forms do not relieve the pain (Level C). Clinicians should tell patients and families that a second dose of a short-term migraine medication can give added headache relief or help relieve any pain that comes back (Level B).

In adolescents who do not get complete migraine relief a triptan, clinicians should offer ibuprofen or naproxen in addition to a triptan to improve migraine relief (Level B).

Treatment of related symptoms

For children and adolescents who also have a lot of nausea or vomiting with their migraine, clinicians should offer treatments to prevent vomiting (Level B).

Counseling

Clinicians should tell children and adolescents with migraine and families of these children and adolescents about the following things (Level B):

- Migraine-healthy habits, including lifestyle changes
- How to spot and deal with migraine triggers and things that make migraine headaches and symptoms worse
- Why it is important to not overuse migraine medication

Clinicians should work together with children and adolescents with migraine and their families to come up with patient-specific treatment goals (Level B) and may tell them to keep a headache diary to record how the treatments work (Level C). Clinicians should also tell patients and families to not use ibuprofen or acetaminophen longer than 15 days per month and not use triptans longer than 9 days per month to avoid using to help keep them from getting headaches from using too much of these drugs (Level B).
**Precautions for triptan use**

Clinicians must not prescribe triptans to those with a history of ischemic vascular disease or accessory conduction pathway disorders to avoid sickness and death from triptans making these conditions worse (Level A).

Clinicians should tell adolescents with migraine with aura that taking their triptan during a typical aura is safe, but that the triptan may work better if they take it when the head pain begins (Level B).

If children and adolescents with hemiplegic or basilar migraine auras do not get relief from other treatments, clinicians may consider referring them to a headache specialist to find effective treatment (Level C).

**Table 1. Definitions for Recommendation Levels**

<table>
<thead>
<tr>
<th>Recommendation Level</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>A</strong> (Strong)</td>
<td>There are very strong and compelling reasons to follow this recommendation, it 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><strong>B</strong> (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><strong>C</strong> (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 different reasons and these reasons are described in the complete guideline.</td>
</tr>
<tr>
<td><strong>U</strong> (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><strong>R</strong> (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>
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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 practice guideline. The
complete practice guideline is available at www.aan.com/practice-guidelines/home/public-comments.

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American Academy of Neurology, 201 Chicago Avenue, Minneapolis, MN 55415
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