



Practice Guideline Update: Efficacy and Tolerability of the New Antiepileptic Drugs I: Treatment of New-onset Epilepsy

New antiepileptic drugs (AEDs) are also called second- and third-generation AEDs. They were developed after the first AEDs that were used to treat patients with epilepsy.

Experts from the American Academy of Neurology (AAN) and the American Epilepsy Society (AES) carefully reviewed the available scientific studies about the effectiveness of new AEDs in people newly diagnosed with epilepsy (new-onset epilepsy). This information summarizes the main findings of those studies.

What did the experts ask?

Do the new AEDs work when they are used for people newly diagnosed with epilepsy? How do they compare with older AEDs?

Experts reviewed studies about these AEDs:

- Clobazam
- Eslicarbazepine
- Felbamate
- Gabapentin
- Lacosamide
- Lamotrigine
- Levetiracetam
- Oxcarbazepine
- Perampanel
- Pregabalin
- Rufinamide
- Tiagabine
- Topiramate
- Vigabatrin
- Zonisamide

What does the research say?

Experts collected and reviewed evidence from studies. This table summarizes the strongest recommendations based on that evidence. For the full recommendations, go to AAN.com/guidelines.

Drug(s)	Summary of Recommendations	Recommendation Strength*
Lamotrigine	Lamotrigine use should be considered to reduce how often seizures happen, but for childhood absence epilepsy, ethosuximide or valproic acid should usually be considered before lamotrigine.	Moderate
Levetiracetam and zonisamide	Levetiracetam and zonisamide may be considered to reduce how often seizures happen.	Weak
Gabapentin	Gabapentin use may be considered to reduce how often seizures happen in patients aged 60 years and older.	Weak

*Key to Recommendation Strength:

Strong recommendation = In almost all circumstances, almost all patients would want the recommendation to be followed

Moderate recommendation = In most circumstances, most patients would want the recommendation to be followed

Weak recommendation = In some circumstances, some patients would want the recommendation to be followed

What is the key message for me?

Newer drugs offer extra options to meet the many factors your clinician must consider in managing your epilepsy. These include the type of seizures you have, other medical conditions you have, and your age and gender. They also include your preferences and cost.

You should ask your clinician about new AEDs and whether they may improve the management of your specific type of seizures. To help your clinician answer these questions, it is very important to give them a detailed description of your seizures and a complete history of your mental health, including any depression, anxiety, or trouble thinking that you have had. You should also discuss considerations for other medications or therapies with your doctor.

This guideline was co-developed with the American Epilepsy Society.

The AAN is the world's largest association of neurologists and neuroscience professionals. Neurologists are doctors who identify and treat diseases of the brain and nervous system. The AAN is dedicated to promoting the highest quality patient-centered neurologic care.

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