

NICE GUIDELINES ON ANTI-EPILEPTIC DRUGS

NICE guidelines on epilepsy include recommendations for the drug treatment of different types of epilepsy and seizures.

About NICE

NICE is the [National Institute for Health and Care Excellence \(opens new window\)](#). It is an independent organisation that provides national guidance, recommendations and quality standards to improve health and social care services in England.

NICE's clinical guidelines recommend how specific health conditions should be diagnosed, treated and managed. Clinical guidelines take into account best practice and evidence-based research to develop recommendations.

The [clinical guideline for epilepsy \(CG137\) \(opens new window\)](#) is called 'The epilepsies: the diagnosis and management of the epilepsies in adults and children in primary and secondary care'. Part of this guideline covers the recommended anti-epileptic drugs (AEDs) for treating different types of seizures.

This page is about the treatment the epilepsy guideline recommends for particular types of seizures.

Notes

The AEDs listed below are listed by their generic name (the name of the active ingredient).

First line treatment – this refers to a drug that is tried first and usually used on its own. If more than one AED is listed in this row, one AED will be chosen and tried on its own first. If it does not work, the another may be tried, or a drug from the 'alternative first line drug' list might be used.

Alternative first line treatment – this is the 'second round' of AEDs that are tried. Like the 'first line treatment' they are usually tried on their own, although sometimes combinations might be used.

Adjunctive treatment (or 'add-on treatment') – these are AEDs that might be added to a first line treatment (so are used in combination). This happens if a first line treatment does not control the seizures or is not tolerated (for example, has side effects which means that the person cannot continue on that AED).

Action if adjunctive treatment is not effective or tolerated – this is guidance on what to do if adjunctive treatment does not work. In some situations, referral back to a

neurologist, or on to specialist neurological services (or 'tertiary services') might be needed. It may be that the person's diagnosis needs to be looked at, or a more specialist combination of treatment is needed.

Cautions – this includes situations where extra care is needed when prescribing AEDs. Some AEDs can have specific side effects, or there may be AEDs that make some seizure types worse rather than better.

Tertiary epilepsy services – these are specialist services in hospitals or units that focus on specific conditions. You have to be referred to tertiary services, usually from secondary care (your local hospital).

Treatment of focal seizures

Treatment of focal seizures in children, young people and adults.

- First line treatment: carbamazepine, lamotrigine
- Alternative first line treatment: levetiracetam, oxcarbazepine, sodium valproate
- Cautions: be aware of potential effect of sodium valproate in pregnancy
- Adjunctive treatment (if first line treatment is not effective or not tolerated): carbamazepine, clobazam, gabapentin, lamotrigine, levetiracetam, oxcarbazepine, sodium valproate, topiramate
- Action if adjunctive treatment is not effective or tolerated: consider referral to tertiary epilepsy services (where other AEDs may be tried)

Treatment of generalised tonic clonic seizures

Treatment of generalised tonic clonic seizures in children, young people and adults.

- First line treatment: sodium valproate, lamotrigine (if sodium valproate is not suitable)
- Cautions: be aware of potential effect of sodium valproate in pregnancy. If the person has myoclonic seizures or may have juvenile myoclonic epilepsy lamotrigine may worsen myoclonic seizures
- Alternative first line: treatment carbamazepine, oxcarbazepine
- Cautions: be aware that these drugs may worsen myoclonic or absence seizures
- Adjunctive treatment (if first line treatment is not effective or not tolerated): clobazam, lamotrigine, levetiracetam, sodium valproate, topiramate
- Cautions: be aware of potential effect of sodium valproate in pregnancy. If the person also has absences or myoclonic seizures, or may have juvenile myoclonic epilepsy do not offer carbamazepine, gabapentin, oxcarbazepine, phenytoin, pregabalin, tiagabine or vigabatrin

Treatment of absence seizures

Treatment of absence seizures in children, young people and adults.

- First line treatment: ethosuximide, sodium valproate (offer first if additional tonic clonic seizures are likely)

- Cautions: be aware of potential effect of sodium valproate in pregnancy
- Alternative first line treatment: lamotrigine
- Adjunctive treatment (if first line treatment is not effective or not tolerated): consider a combination of ethosuximide, lamotrigine or sodium valproate.
- Cautions: be aware of potential effect of sodium valproate in pregnancy
- Action if adjunctive treatment is not effective or tolerated: consider referral to tertiary epilepsy services (where other AEDs may be tried)
- Cautions: do not offer carbamazepine, gabapentin, oxcarbazepine, phenytoin, pregabalin, tiagabine or vigabatrin

Treatment of myoclonic seizures

Treatment of myoclonic seizures in children, young people and adults.

- First line treatment: sodium valproate
- Cautions: be aware of potential effect of sodium valproate in pregnancy
- Alternative first line treatment: levetiracetam, topiramate
- Cautions: be aware that topiramate has poorer side effects than sodium valproate or levetiracetam
- Adjunctive treatment (if first line treatment is not effective or not tolerated): levetiracetam, sodium valproate, topiramate
- Cautions: be aware of potential effect of sodium valproate in pregnancy
- Action if adjunctive treatment is not effective or tolerated: consider referral to tertiary epilepsy services (where other AEDs may be tried)
- Cautions: do not offer carbamazepine, gabapentin, oxcarbazepine, phenytoin, pregabalin, tiagabine or vigabatrin

Treatment of tonic and atonic seizures

Treatment of tonic and atonic seizures in children, young people and adults.

- First line treatment: sodium valproate
- Cautions: be aware of potential effect of sodium valproate in pregnancy
- Adjunctive treatment (if first line treatment is not effective or tolerated): lamotrigine
- Action if adjunctive treatment is not effective or not tolerated: consider referral to tertiary epilepsy services (where other AEDs may be tried)
- Cautions: do not offer carbamazepine, gabapentin, oxcarbazepine, pregabalin, tiagabine or vigabatrin

For information on the treatment of prolonged or repeated seizures, drug treatment by epilepsy syndrome, and more about the licensing indications of the anti-epileptic drugs listed here, please see the full [NICE guideline, appendix E: pharmacological treatment \(opens new window\)](#).

Fuente: NICE

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