

FIRST SEIZURE MANAGEMENT

By Anna-Maria Katsarou, MD - Albert Einstein College of Medicine, New York, USA



From the moment a person presents with a first epileptic seizure, determining the **ETIOLOGY** of the patient's seizure should be the clinician's first task.

- Patient's detailed history
- Physical examination
- Neuroimaging (epilepsy-protocol MRI)
- Electroencephalogram (EEG)

ETIOLOGY

Structural
Genetic
Infectious
Metabolic
Immune
Unknown

1 in 10 people world wide will experience at least one seizure in their lifetime

Levels of Diagnosis

epilepsy syndrome

epilepsy type

seizure type

According to the American Academy of Neurology (AAN) & the American Epilepsy Society (AES) Guidelines:

Seizure risk after an unprovoked first seizure is greatest within the first 2 years (21-45%).

Clinical variables associated with increased risk of seizure recurrence:

- a prior brain injury
- epileptiform activity on EEG
- abnormal brain imaging (CT/MRI)
- a nocturnal seizure



Antiepileptic drug (AED) treatment

Clinicians recommend that first seizure treatment decisions should be individualized according to :

- patient preference
- risk-benefit ratio



AED choice depends on:

- seizure type
- patient's age
- side effect profile
- pregnancy potential

Two main types of AEDs
Broad-spectrum vs Narrow-spectrum

all seizure types
(focal, generalized, unknown)

focal seizures

Questions or concerns



Consult your neurologist



[m.facebook.com/yesILAE/](https://www.facebook.com/yesILAE/)

@ILAEWeb
@yesILAE

- Fisher, R.S., et al. ILAE official report: a practical clinical definition of epilepsy. *Epilepsia*. 2014; 55(4): p. 475-82.
- Scheffer, I.E., et al. ILAE Classification of the Epilepsies Position Paper of the ILAE Commission for Classification and Terminology. *Epilepsia*. 2017; 58(4): p. 512-521
- Krumholz, A., et al. Evidence-based guideline: Management of an unprovoked first seizure in adults. Report of the Guideline Development Subcommittee of the American Academy of Neurology and the American Epilepsy Society. 2015; 84(16): p. 1705-1713.