

# Anticonvulsants /Antiepileptic drugs

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# Introduction

- ❖ The term epilepsy is derived from Greek word “epilambanein” (to seize).
- ❖ It is characterised by abnormal and excessive electroencephalographic discharge and disturbance or loss of consciousness.

## Types of epilepsy

Three principal types of epilepsy are

1. Grandmal epilepsy: normally characterised by complete loss of consciousness followed by tonic and clonic convulsions of all muscle. The seizures last from 2-5 mins.
2. Petitmal epilepsy: characterised by momentary loss of consciousness with occasionally blinking movement of the eyelid and jerking movements of the head or arms. The seizures last from 3-30 seconds.



3. Psychomotor epilepsy: characterised by outburst of temper, mental apathy and sudden irrational and destructive attitude. The seizures last from 2-3 mints.

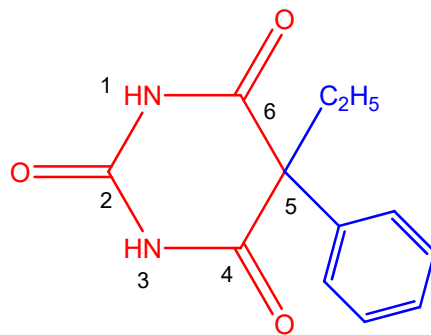
### Definition

- Anticonvulsants are drugs which selectively depress CNS and used for treatment of epilepsy.
- The primary use of anticonvulsant drug is in the prevention and control of epileptic seizures.

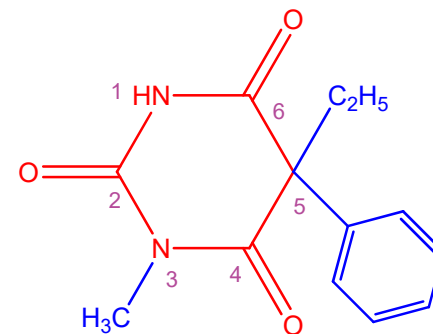
### Classification

Anticonvulsants are classified chemically into different types

#### Barbiturates

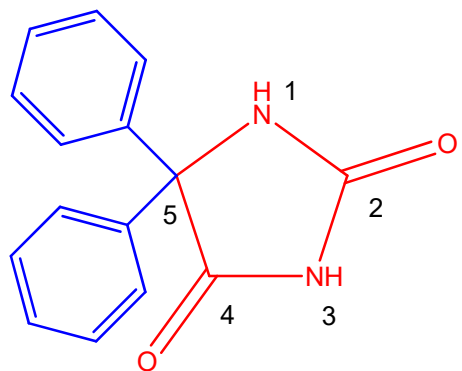


Phenobarbital

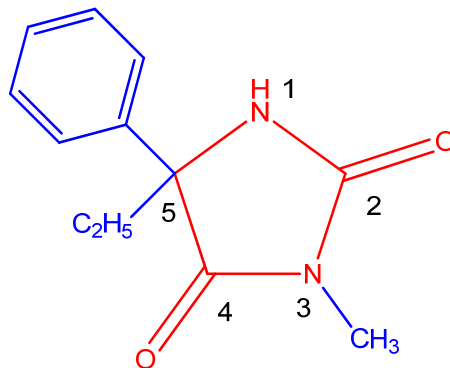


Mephobarbital

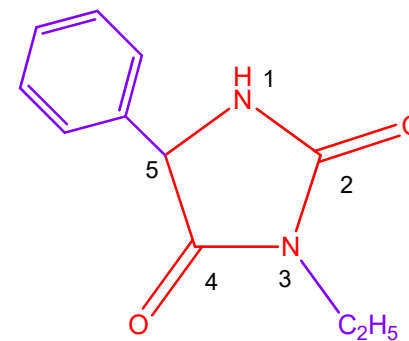
✓ Hydantoins (imidazoline-2,4-dione)



Phenytoin

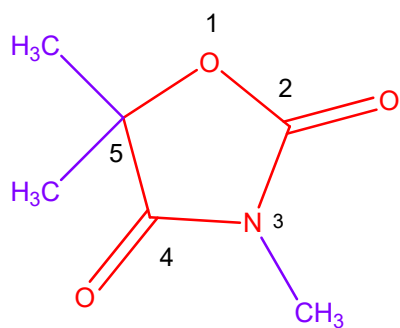


Mephenytoin

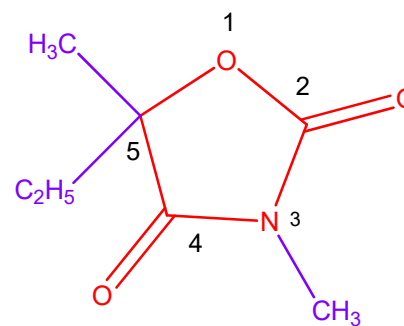


Ethotoin

✓ Oxazolidinediones:

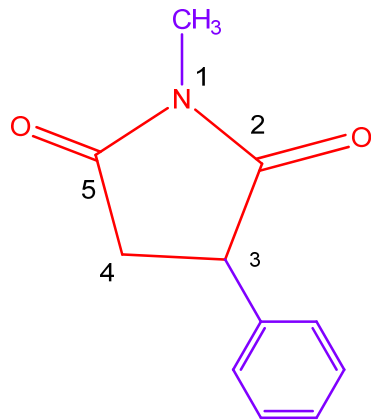


Trimethadione

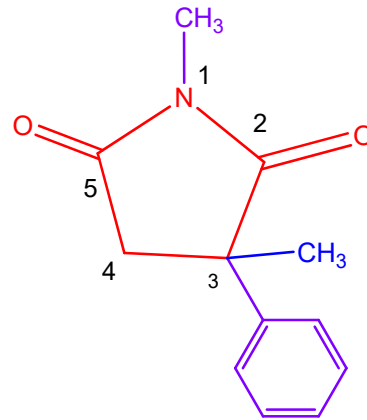


Paramethadione

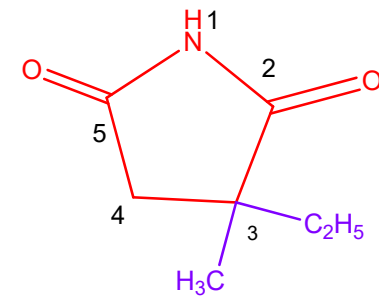
## ✓ Succinimides



Phensuximide

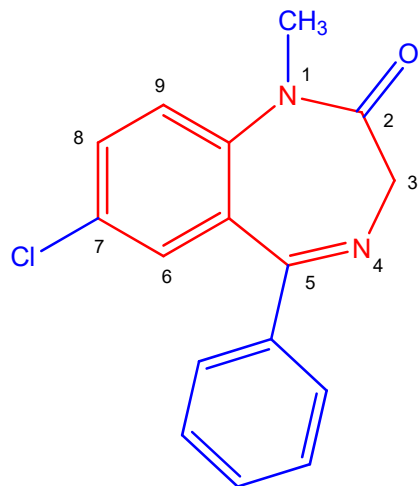


Methsuximide

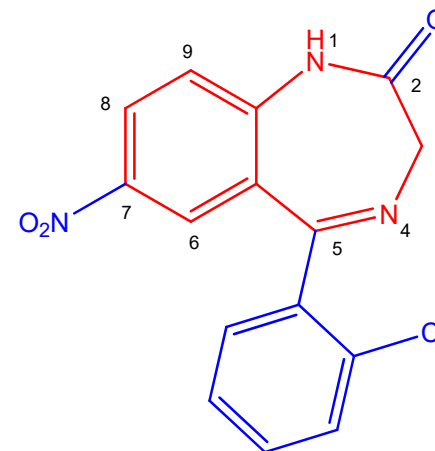


Ethosuximide

## ✓ Benzodiazepines

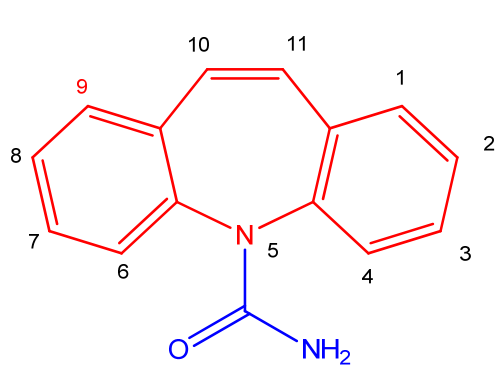


Diazepam

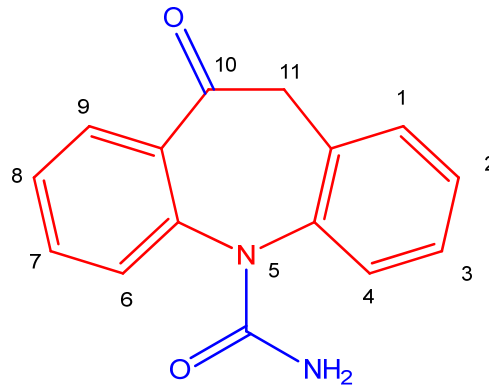


Clonazepam

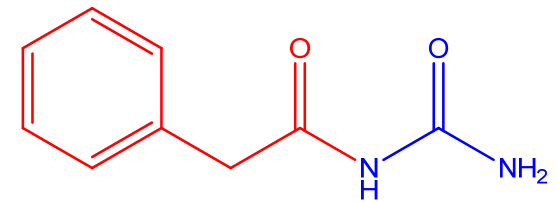
✓ Urea derivatives / Dibenzazepines (iminostilbene)



Carbamazepine

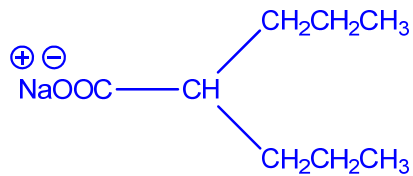


Oxacarbazepine



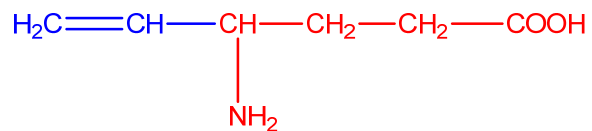
Phenacemide

✓ Valproic acid derivative

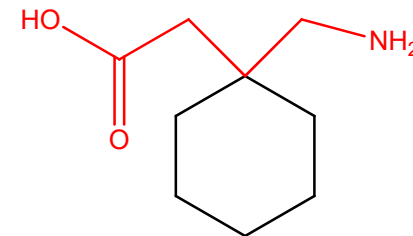


Sodium valproate

✓ GABA analogs

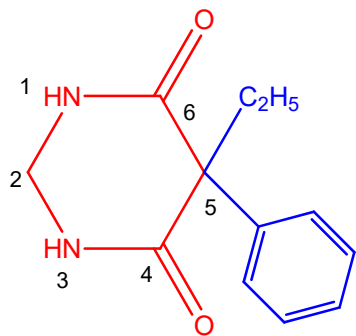


Vigabatrin

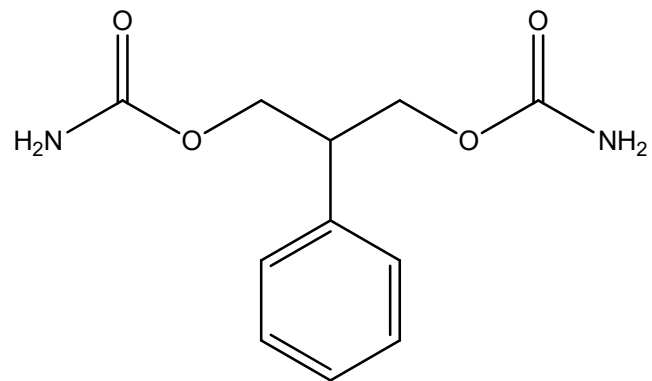


Gabapentin

## Miscellaneous



Primidone



Felbamate