

## Learning unit: Anticonvulsants

### Relevant terms:

antiepileptic drugs

- antiepileptic drugs reducing presynaptic excitability and release of neurotransmitters
  - inhibition of sodium channel function
    - phenytoin
    - carbamazepine
    - lamotrigine
  - inhibition of calcium channel function
    - gabapentin
    - pregabalin
    - ethosuximide
  - modulation of the synaptic vesicular SV2A protein
    - levetiracetam
- antiepileptic drugs enhancing GABA action
  - clonazepam
  - diazepam
  - phenobarbital
  - tiagabine
  - vigabatrin
- antiepileptic drugs with multiple mechanisms of action
  - valproate
  - topiramate

adverse effects and teratogenicity of antiepileptic drugs

### Learning outcomes

Student knows basic pharmacological profile (mode of action, unwanted effects, indications and contraindications) of antiepileptic drugs.

Student knows the interaction potential of anticonvulsants.

Student knows the specifics of pharmacotherapy of antiepileptics in pregnant women.

### Study literature

Rang & Dale's Pharmacology, 9th edition, 2020-chapter 46, pp. 580-590.

Study materials in IS aVLFA0822c and aVLFA08222p.

## Exam questions

*Special pharmacology:* 28. Anticonvulsants

„*Essential*“ drugs: 40. gabapentin, 52. carbamazepine, 61. valproic acid