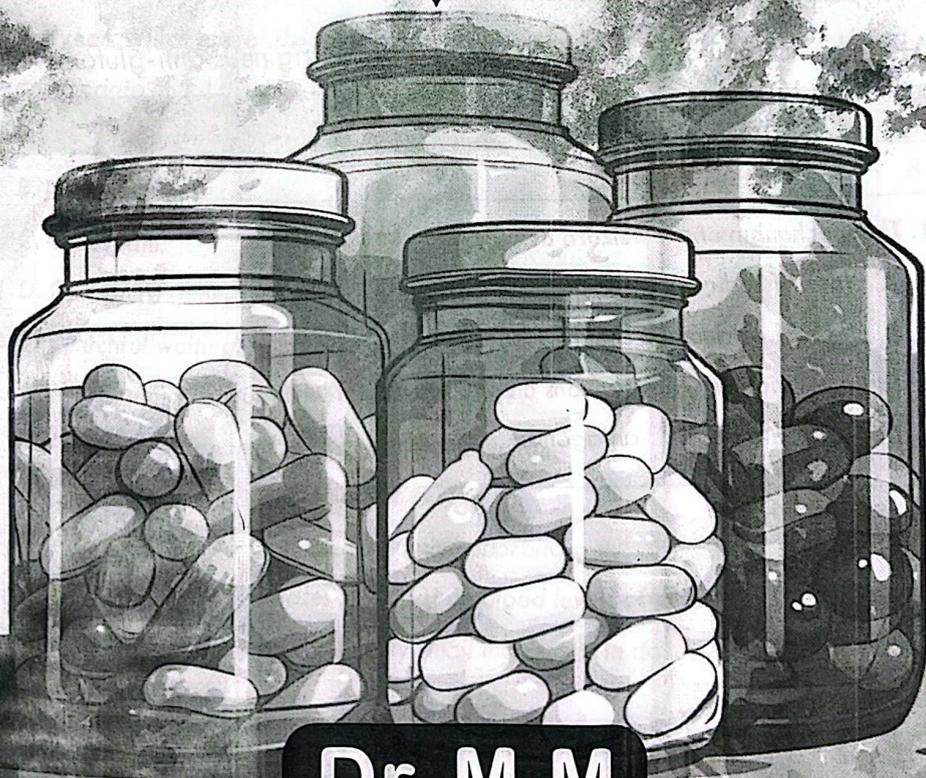


# MSK Pharmacology

Level(1) Sem(2)

MCO (3)

4



Dr. M.M

## Pharma L3

- 1- Enumerate drugs used in treatment of absence and mention MOA of 1st line drug ?
- 2- Mention MOA and 2 side effect of phenytoin , carbamazepine ?
- 3- Mention lines of treatment of status epilepticus ?

## MCQ notes L3

- 1- Ethoximide is the 1st choice in petite mal epilepsy (absence epilepsy)
- 2- IV diazepam is the 1st choice in status epilepticus
- 3- Valproic acid is 1st choice in generalized tonic clonic epilepsy
- 4- Phenytoin and carbamazepine block Na channels
- 5- Phenytoin cause megaloblastic anemia , lymphadenopathy , gingival hyperplasia
- 6- Felbamate block NMDA receptor while lamotrigine is anti-glutamate

## MCQ

1. The mechanism of anti-seizure activity of carbamazepine is:

- A. Block of sodium ion channels
- B. Block of calcium ion channels
- C. Facilitation of GABA actions on chloride ion channels
- D. Glutamate receptor antagonism

A

<p>2. Which drug used in management of seizure disorders is most likely to elevate the plasma concentration of other drugs administered concomitantly?</p> <p>A. Carbamazepine  B. Clonazepam  C. Phenobarbital  D. Phenytoin  E. Valproic acid</p>	E
<p>3. With chronic use in seizure states, the adverse effects of this drug include coarsening of facial features, hirsutism, and gingival hyperplasia.</p> <p>A. Carbamazepine  B. Ethosuximide  C. Phenytoin  D. Trgabine</p>	C
<p>4. A 52-year-old man has had several focal complex partial seizures over the last year. Which one of the following therapies would be the most appropriate initial therapy for this patient?</p> <p>A. Ethosuximide.  B. Levetiracetam.  C. Diazepam.  D. Carbamazepine.  E. Watchful waiting.</p>	B
<p>5. Which statement about phenytoin is accurate?</p> <p>A. Displaces sulfonamides from plasma proteins  B. Drug of choice in myoclonic seizures  C. Half-life is increased if used with phenobarbital  D. Isoniazid (INH) decreases steady-state blood levels of phenytoin  E. Toxic effects may occur with only small increments in dose</p>	E

8) Which anti...

6. Abrupt withdrawal of anti-seizure drugs can result in increases in seizure frequency and severity. Withdrawal is most easily accomplished if the patient is treated with:

- A. Carbamazepine
- B. Clonazepam
- C. Ethosuximide
- D. Phenobarbital
- E. Phenytoin

C

5) Ethosuxamide can be used for the treatment of:

- a) Generalized tonic clonic seizures
- b) Absence seizures
- c) Complex seizures
- d) Myoclonic seizures
- e) Focal seizures

B

6) Ali, a 10-year-old boy, is having difficulty in learning at school. He has short lapses of awareness with eyelid fluttering that occur every 5-10 minutes.

Which of the following drugs would be effective, but has the disadvantage that it causes sedation & tolerance?

- a) Buspirone
- b) Ethosuxamide
- c) Clonazepam
- d) Valproic acid
- e) Lamotrigine

C

7) The drug of choice for patient with combination of generalized tonic clonic seizures & absence seizures is:

- a) Ethosuxamide
- b) Carbamazepine
- c) Valproic acid
- d) Phenytoin sodium
- e) Lamotrigine

C

<p>8) Which antiepileptic drug is most likely to elevate the plasma concentration of other drugs administered concomitantly?</p> <p>a) Carbamazepine b) Clonazepam c) Phenobarbital d) Phenytoin e) Valproic acid</p>	<b>E</b>
<p>9) One of the following is characteristic of both phenytoin and Carbamazepine:</p> <p>a) Inhibition of hepatic cytochrome P450 b) First-order elimination at high therapeutic doses c) Enhances the effects of oral contraceptives d) Safe to use in pregnancy e) Prevent sodium influx through fast sodium channels</p>	<b>E</b>
<p>10) A 20-year-old man with absence seizures is treated with ethoximide. Which of the following is the principle mechanism of action of ethoximide?</p> <p>a) Calcium channel blockade. b) Chloride channel opening. c) Increase in GABA. d) Increase K-channel permeability.</p>	<b>A</b>
<p>11) Epileptic seizures are not controlled by:</p> <p>a) Clonazepam b) Carbamazepine c) Phenytoin d) Levodopa</p>	<b>D</b>

**12) The drug of first choice for treatment of status epilepticus.**

- a) Diazepam
- b) Ethosuximide
- c) Felbamate
- d) Gabapentine.
- e) Lamotrigine

A

**13) The drug of choice for patient with combination of generalized tonic clonic seizures & absence seizures is:**

- a) Ethosuxamide
- b) Carbamazepine
- c) Valproic acid
- d) Phenytoin sodium
- e) Lamotrigine

C

**14) Which of the following anticonvulsants is most often used to treat absence (petit mal) seizures?**

- a) Ethosuximide
- b) Phenobarbital
- c) Carbamazepine
- d) Bromide
- e) Diazepam

A

**15) Epileptic seizures are not controlled by:**

- a) Clonazepam
- b) Carbamazepine
- c) Phenytoin
- d) Levodopa

D

<p><b>16) With chronic use in seizure states, the adverse effects of this drug include coarsening of facial features, hirsutism, and gingival hyperplasia:</b></p> <ul style="list-style-type: none"> <li>a) Carbamazepine</li> <li>b) Ethosuximide</li> <li>c) Phenytoin</li> <li>d) Tiagabine</li> </ul>	<p><b>C</b></p>
<p><b>17) The mechanism of antiseizure activity of carbamazepine is:</b></p> <ul style="list-style-type: none"> <li>a) Block of sodium ion channels</li> <li>b) Block of calcium ion channels</li> <li>c) Facilitation of GABA actions on chloride ion channels</li> <li>d) Glutamate receptor antagonism</li> <li>e) Inhibition of GABA transaminase</li> </ul>	<p><b>A</b></p>
<p><b>17) The most probable mechanism of anticonvulsant action of phenytoin is:</b></p> <ul style="list-style-type: none"> <li>a) Facilitation of GABAergic inhibitory transmission</li> <li>b) Hyperpolarization of neurones</li> <li>c) Interaction with Ca<sup>2+</sup> channels to promote Ca<sup>2+</sup> influx</li> <li>d) Prolongation of voltage sensitive neuronal Na<sup>+</sup> channel inactivation</li> </ul>	<p><b>D</b></p>
<p><b>18) Sodium valproate should be used with caution in young children because they are particularly at risk of developing the following adverse effect:</b></p> <ul style="list-style-type: none"> <li>a) Hepatitis</li> <li>b) Loss of hair</li> <li>c) Anorexia</li> <li>d) Tremor</li> </ul>	<p><b>A</b></p>

22) A 53-year-old patient with a history of trigeminal neuralgia is being treated with carbamazepine. The patient is experiencing dizziness and ataxia. Which of the following is the most likely cause of these symptoms?

<p><b>19) The following is true in the treatment of epilepsy except:</b></p> <ul style="list-style-type: none"><li>a. The choice of drug depends on the cause of epilepsy and not on the seizure type</li><li>b. Treatment should be instituted as early as possible</li><li>c. Treatment is generally started with a single drug and the other drug is added or substituted according to response</li><li>d. Withdrawal of drug can be attempted if no seizures have occurred for 3-5 years</li></ul>	<p>A</p>
<p><b>20) The preferred drug for status epilepticus is:</b></p> <ul style="list-style-type: none"><li>a) Intravenous diazepam</li><li>b) Intravenous phenytoin sodium</li><li>c) Intramuscular phenobarbitone</li><li>d) Rectal diazepam</li></ul>	<p>A</p>
<p><b>21) A child is experiencing absence seizures that interrupt his ability to pay attention during school and activities. Which of the following therapies would be most appropriate for this patient?</b></p> <ul style="list-style-type: none"><li>a) Ethosuximide.</li><li>b) Carbamazepine.</li><li>c) Diazepam.</li><li>d) Carbamazepine plus primidone.</li><li>e) Watchful waiting.</li></ul>	<p>A</p>

22) A 53-year-old woman with seizure disorder, bipolar disorder, and trigeminal neuralgia presents to her primary care physician for follow-up and treatment. She has no new complaints. Which of the following medications may serve to treat all of her earlier mentioned problems?

- a) Carbamazepine
- b) Ethosuximide
- c) Felbamate
- d) Gabapentin
- e) Lacosamide

A

237) A 15-year-old boy presents to clinic for follow-up for his tonic-clonic seizures. He reports that he has not had a seizure in the past 6 months. However, he has been more tired recently and is unsure why. A complete blood count is performed and shows megaloblastic anemia. The physician told the patient that this was most likely a side effect of his antiseizure medication. What is the most likely medication he was taking?

- a) Carbamazepine
- b) Ethosuximide
- c) Phenobarbital
- d) Phenytoin
- e) Valproic acid

D

24) The most probable mechanism of anticonvulsant action of phenytoin is:

- a) Facilitation of GABAergic inhibitory transmission
- b) Hyperpolarization of neurones
- c) Interaction with  $Ca^{2+}$  channels to promote  $Ca^{2+}$  influx
- d) Prolongation of voltage sensitive neuronal  $Na^{+}$  channel inactivation

D

25) The following adverse effect(s) of phenytoin is/are related to high plasma drug concentration:

- a) Ataxia
- b) Hirsutism
- c) Gum hyperplasia
- d) All of the above

A

25) The following statement is not true of carbamazepine:

- a) It generates an active metabolite
- b) Its plasma half life decreases to nearly half of the original value after chronic use
- c) It is being used in mania
- d) It is not effective in complex partial seizures

D

26) Sodium valproate has been shown to:

- a) Prolong neuronal  $\text{Na}^+$  channel inactivation
- b) Attenuate 'T' type  $\text{Ca}^{2+}$  current in neurones
- c) Inhibit degradation of GABA by GABA-transaminase
- d) All of the above

D

27) The preferred drug for suppressing febrile convulsions is:

- a) Intramuscular phenobarbitone
- b) Intravenous phenytoin
- c) Rectal diazepam
- d) Oral sodium valproate

C

<p><b>28) Choose the correct statement about lamotrigine:</b></p> <ul style="list-style-type: none"> <li>a) It is a dopaminergic agonist used in parkinsonism</li> <li>b) It acts by blocking NMDA-type of glutamate receptors</li> <li>c) It is a broad spectrum antiepileptic drug</li> <li>d) It suppresses tonic-clonic seizures, but worsens absence seizures</li> </ul>	<p><b>C</b></p>
<p><b>29) Gabapentin acts:</b></p> <ul style="list-style-type: none"> <li>a) As GABA agonist</li> <li>b) As precursor of GABA</li> <li>c) By enhancing GABA release</li> <li>d) By GABA independent mechanism</li> </ul>	<p><b>C</b></p>
<p><b>30) A combination of two or more antiepileptic drugs is used:</b></p> <ul style="list-style-type: none"> <li>a) Routinely in all types of epilepsy</li> <li>b) In all cases of complex partial seizures</li> <li>c) In all cases of secondarily generalized seizures</li> <li>d) Only when monotherapy with first/second choice drugs fails</li> </ul>	<p><b>D</b></p>
<p><b>31) Which of the following drugs is most useful for the treatment of absence seizures?</b></p> <ul style="list-style-type: none"> <li>a) Topiramate.</li> <li>b) Tiagabine.</li> <li>c) Levetiracetam.</li> <li>d) Lamotrigine.</li> <li>e) Zonisamide.</li> </ul>	<p><b>D</b></p>

**32. Which of the following antiepileptic agents, used for trigeminal neuralgia, is considered primary treatment of all seizure types except absence?**

- a) Carbamazepine
- b) Ethosuximide
- c) Valproic acid
- d) Diazepam

**A**

**33. The drug of choice for trigeminal neuralgia is**

- A. Aspirin
- B. Imipramine
- C. Carbamazepine
- D. Valproic acid

**C**