

## Class tasks

### Task 1.

Divide the following drugs into the groups:

Group	Drugs
Anthelmintic	
Antifungal	
a) antibiotics	
b) azoles	
c) undecylenic acid derivatives	

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Antiviral	
d) anomalous nucleosides	
f) adamantane derivatives	
j) pyrophosphate analogues	

### Drugs.

1. Nystatin
2. Miconazole
3. Natamycine
4. Griseofulvin
5. Pyrantel
6. Pirazinamide
7. Gancyclovir
8. Zincundan
9. Mebendazole
10. Levamisole
11. Prasiquantel
12. Ribavirine
13. Sodium foscarnet
14. Remantadine

## Task 2.

Learning the mechanism of antihelminthic, antifungal, antiviral drugs action match the letters (mechanism of action) with numbers (names of drugs).

### Drugs

- |                           |                             |
|---------------------------|-----------------------------|
| 1. Pyrantel               | 9. Prasiquantel             |
| 2. Ethylene tetrachloride | 10. Remantadine             |
| 3. Levamisol              | 11. Albendazole             |
| 4. Ribavirine             | 12. Interferon- $\alpha$ -1 |
| 5. Cycloferon             | 13. Mebendazole             |
| 6. Fluconazole            | 14. Clion D                 |
| 7. Aminoacrichine         | 15. Famcyclovir             |
| 8. Natamycine             | 16. Amixin                  |

### Mechanism of action

- A. Disturb the neuromuscular system functions in helminths.
- B. Increase of helminths muscular tone turning into spastic paralysis.
- C. Increases calcium ion permeability of cell membranes of helminths promoting the increase of their muscular tone turning into spastic paralysis.
- D. Disturb metabolic processes in helminths
- E. Inhibit viral RNA release from protein, altering RNA penetration into cell nucleus.
- F. Inhibit viral RNA and DNA synthesis.
- G. Block viral-specific protein synthesis.
- H. Stimulate synthesis of endogenous interferon in human body.
- I. Inhibition of ergosterol synthesis.

**Task 7.**

From the proposed list of side effects match the letters (drugs) with numbers (names of side effects).

Drugs

A. Interferons	C. Acyclovir
B. Zidovudine	D. Remantadine

Side effects

1. Hallucinations	6. Bone marrow suppression
2. Myalgia	7. Fever
3. Nephrotoxicity	8. Headache
4. Nausea, vomitig	9. Hepatitis and cholestasis
5. Heart failure	10. Insomnia

## Task 4

Name the **principal mechanisms of action** for:

### **1. Antifungal drugs**

a – azoles

b – allylamines

c – polyene antibiotics

### **2. Antiviral drugs**

a – abnormal nucleosides

b – interferons

c – drugs used in HIV – note that there are several mechanisms, name them and give the examples of drugs