1. Pathways of occurrence and spread of resistance to chemotherapeutic agents. The main directions of the search for antimicrobial agents. The main targets. Mechanisms that prevent the development of resistance of microorganisms to chemotherapeutic agents.
2. General biological properties and structure of viruses. Stages of viral infection. The life cycle of viruses and the stages of replication (RNA and DNA-containing viruses). Classification of antiviral agents.
3. General principles of antitumor chemotherapy. The dependence of the sensitivity of tumor cells to chemotherapy on the cell cycle. Resistance to chemotherapeutic agents. Classification of Antitumor agents by their effect on the phases of the cell cycle.
4. Medicines for the treatment of hepatitis. General biology of hepatitis C virus. General approaches to the creation of drugs. Classification of drugs. Characteristics of the main drugs, mechanism of action, indications for use.
5. Classification of antiseptic, disinfectants and chemotherapeutic agents. The mechanism of action of chemotherapeutic agents. Bacteriostatic and bactericidal action.
6. New approaches in antitumor therapy: monoclonal antibodies, kinase inhibitors, signaling pathway inhibitors.
7. Medicines for the treatment of influenza and ARVI. The general biology of the influenza virus. The basic principles of therapy. Etiotropic therapy drugs for the treatment of influenza and ARVI. Classification. Characteristics of individual drugs.
8. Side effects of antitumor drugs. Auxiliaries for chemotherapy of tumors. Classification. Characteristics of the main drugs from the group of chemoprotectors and antiemetics.
9. Medicines for the treatment of influenza and ARVI. The general biology of the influenza virus. The basic principles of therapy. Pathogenetic therapy drugs for the treatment and prevention of influenza and ARVI. Classification. Characteristics of the main drugs, mechanism of action, indications for use.
10. New approaches in antitumor therapy: differentiation inducers; antimetastatic agents; metalloproteinase inhibitors.
11. Medicines for the treatment of COVID-19. The general biology of the SARS-CoV-2 virus. The basic principles of therapy. Antiviral agents (etiotropic therapy) for the treatment of COVID-19. Classification. Characteristic.
12. New approaches in antitumor therapy: activators of oncosuppressive signaling pathways, inhibitors of signaling pathways, inhibitors of angiogenesis, inducers of differentiation.
13. Medicines for the treatment of COVID-19. The general biology of the SARS-CoV-2 virus. The basic principles of therapy. Antiviral agents (pathogenetic therapy) for the treatment of COVID-19. Classification. Characteristic.
14. New approaches in antitumor therapy: oligosensinucleotides; special dosage forms and delivery systems; gene therapy methods.
15. Medicines for the treatment of COVID-19. The general biology of the SARS-CoV-2 virus. The basic principles of therapy. Drugs of preventive anti-inflammatory therapy COVID-19. Classification. General characteristics.
16. Antitumor agents: interferons, interleukins, monoclonal antibodies, protein kinase inhibitors. General characteristics. The mechanism of action, indications for use.

17. Drugs for symptomatic therapy of COVID-19, influenza and ARVI: antipyretic drugs; drugs used for rhinitis; drugs used for pharyngitis. Classification. Characteristics of the main drugs, mechanism of action, indications for use.
18. Side effects of antitumor drugs. Auxiliaries for chemotherapy of tumors. Classification. Characteristics of the main drugs that stimulate hematopoiesis and increase the immune defense of the body.