



FACULTY OF PHARMACY MEDICAL UNIVERSITY OF SOFIA

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DEPARTMENT "PHARMACOLOGY, PHARMACOTHERAPY AND TOXICOLOGY"

SYLLABUS

in

Chemotherapy

INCLUDED IN THE CURRICULUM FOR "PHARMACY"
EDUCATIONAL DEGREE: "MASTER OF SCIENCE"
CREDITS (ECTS): 5

ANOTATION

The elective discipline "Chemotherapy " is aimed at detailed overview of the state-of-the-art chemotherapy of bacterial, fungal, viral and protozoal infections and anticancer chemotherapy. The course will introduce students to the biological rationale of chemotherapy, the issues of drug resistance and its modulation and exemplar classes of chemotherapeutic approaches for infection and neoplastic disease. Special attention is paid also to the adverse drug effects and toxicities and the approaches for passive and active drug targeting.

**System for control and evaluation of students: ongoing control - 1 colloquium
and final exam after two semesters of training - written and oral.**

Training in English language

SYLLABUS

1. Principles of rational chemotherapy - history, present and prospects.
2. Antibacterial chemotherapy - modern antibiotics and chemotherapeutics.
3. Therapeutic strategies for respiratory infections. Prevention strategies in at-risk patient groups. Tuberculosis – dissemination, resistance and treatment guidelines.
4. Drug Safety of chemotherapeutics.
5. Bacterial resistance - cellular and molecular mechanisms; Opportunities for prevention and therapy of infections caused by resistant microorganisms.
6. Urinary tract infection and sexually transmitted diseases - diagnosis and chemotherapy.

7. Chlamydia and mycoplasma infections - opportunities of contemporary chemotherapy.
8. Viruses and viral infections - characteristics and tropism of viruses. Diagnosis, clinical features and treatment of dangerous infections.
9. AIDS - characteristics of individual viral strains and opportunities of modern antiretroviral therapy.
10. Trypanosoma infections in humans - spread, diagnosis, vectors, clinical features, drug treatment.
11. Leishmaniasis - types and chemotherapy.
12. Malaria - types, distribution, vectors, clinical features, treatment options and prevention.
13. Anticancer chemotherapy - new targets for drug modulation.
14. Possibilities of combination chemotherapy in some solid tumors.
15. Drug treatment of hematological malignancies - leukemias, Hodgkin's disease and non-Hodgkin-lymphoma.

Date: 05/03/2024

Prepared the program:

(Prof. S. Konstantinov, DSc)

Head of the Department of Pharmacology, Pharmacotherapy and Toxicology:

(Prof. G. Momekov, DSc)