



Study program: Doctoral Academic Studies in Biomedical Sciences
Course title: CURRENT ISSUES IN PHARMACOLOGY AND TOXICOLOGY
Teacher: Aleksandar L. Rašković, Zdenko S. Tomić, Velibor M. Vasović, Isidora N. Samojlik, Olga J. Horvat, Saša N. Vukmirović, Boris Ž. Milijašević, Nebojša P. Stilinović, Vesna M. Mijatović Jovin
Course status: compulsory
ECTS Credits: 20
Condition: -
Course aim: To introduce students to the importance of pharmacology and toxicology in the context of evidence-based medicine
Expected outcome of the course: To introduce students to the latest scientific methods of clinical and basic pharmacology and toxicology, and to meet students with drug development, ethics of preclinical and clinical studies and the basics of experimental and clinical toxicology. Students should master current knowledge in the field of pharmacology and toxicology, in order to optimally apply them in rational pharmacotherapy.
Course content <i>Theoretical classes</i> <ol style="list-style-type: none"> 1. Preclinical trials. 2. Basic pharmacodynamic methods in preclinical trials. 3. Clinical trials. 4. Ethics in preclinical and clinical trials. 5. Toxindromes. 6. Pharmacoepidemiology. 7. Pharmacoeconomics. 8. Pharmacovigilance. 9. Use of drugs in special groups of patients - use of drugs in pregnancy and lactation. 10. Use of drugs in special groups of patients - use of drugs in children and elderly patients. 11. Drug interactions in clinical practice. 12. Modern approach in the administration of antibiotics. 13. Drugs in the treatment of cardiovascular diseases (arterial hypertension). 14. Drugs in the treatment of cardiovascular diseases (ischemic heart disease). 15. Drugs in the treatment of cardiovascular diseases (heart failure). 16. Anticoagulant and antiplatelet therapy. 17. Drugs in the treatment of bronchial asthma. 18. Drugs in the treatment of diseases of the gastrointestinal tract. 19. Drugs in the treatment of psychiatric disorders (antidepressants, antipsychotics). 20. Drugs in the treatment of neurological disorders (antiparkinsonian drugs, drugs in the treatment of dementia). 21. Drugs in the treatment of anxiety. 22. Modern approach to pain treatment. 23. Drugs in the treatment of diabetes and metabolic syndrome. 24. Drugs in the treatment of osteoporosis. 25. Drugs in the treatment of thyroid disorders, corticosteroids, sex hormones. 26. Targeted therapy in the treatment of malignant diseases. <i>Practical lessons</i> <ol style="list-style-type: none"> 1. Seminar paper - preclinical pharmacodynamic methods. 2. Seminar paper - preclinical toxicological studies. 3. Seminar paper - calculate the use of a certain group of drugs in a certain environment, as well as in certain clinics of KCV. 4. Interpretation of the results of pharmacoeconomic studies. 5. ALIMs. 6. Republic Health Fund. Drug lists. 7. Pharmacotherapeutic case (cardiology).

8. Pharmacotherapeutic case (cardiology).
9. Pharmacotherapeutic case (diseases of the respiratory tract).
10. Pharmacotherapeutic case (psychopharmacology).
11. Pharmacotherapeutic case (analgesics).
12. Pharmacotherapeutic case (neuropharmacology).
13. Pharmacotherapeutic case (diseases of the gastrointestinal tract).
14. Pharmacotherapeutic case (diabetes).
1. 15. Pharmacotherapeutic case (osteoporosis).

Literature

Obligatory

1. Brown MJ, Sharma P, Bennet PN, Mir FA: Clinical Pharmacology (12th edition). London: Churchill Livingstone, 2018;
2. Rang HP, Dale MM, Ritter JM, Moore PK. Rang and Dale Pharmacology (9th edition). Elsevier, 2019;
3. Brenner GM, Stevens C. Pharmacology, 6th edition. Elsevier, 2022.
4. Royal Pharmaceutical Society of Great Britain. British National Formulary 78. Royal Pharmaceutical Society, 2019.

Number of active classes

Theoretical classes: 60

Practical classes: 45

Teaching methods Theoretical and practical

Student activity assessment (maximally 100 points)

practices:

essay:

written exam: 100