Study program: Integrated Academic Studies in Pharmacy

Course title: Special Pharmacology II

Teacher: Aleksandar L. Rašković, Zdenko S. Tomić, Velibor M. Vasović, Isidora N. Samojlik, Olga J. Horvat, Saša N. Vukmirović, Boris Ž. Milijašević, Vesna M. Mijatović Jovin, Nebojša P. Stilinović

Course status: compulsory

ECTS Credits: 5

Condition: General Pharmacology, Special Pharmacology I (for taking the final exam)

Course aim

To give students basic knowledge about antimicrobial and chemotherapeutic drugs, as well as the drugs used in therapy of respiratory, gastrointestinal and endocrinology diseases and dysfunctions – their mechanisms and sites of action, classification in therapeutic groups (together with the most important group representatives), indications, adverse drug reactions, interactions and contraindications.

Expected outcome of the course:

At the end of teaching process, students should know why, how and when to apply antimicrobial, antiparasitic, antiviral and antifungal drugs, drugs used in treatment of respiratory, gastrointestinal and endocrinology diseases and dysfunctions; their characteristics, passage through the body, place and mechanism of action and danger of their application.

Course description

Theoretical education

Antimicrobial agents - an introduction, division, resistance, principles of dosage regimens. Beta lactam antibiotics. Beta lactamase inhibitors. Polypeptides. Glycopeptides. Lipopeptides. Macrolides. Ketolides. Pyranosides. Aminoglycosides. Tetracyclines. Glycylcyclines. Amphenicols. Spectrogramines. Oxazolidines. Inhibitors of bacterial DNA. Quinolones. Sulfonamides and trimethoprims. Anti-tuberculosis. Antibacterial azoles. Antimycotics. Antivirals. Antiparasitic drugs. Antitumor drugs. Immunomodulators. Treatment of diabetes. Treatment of osteoporosis. Therapy of diseases of thyroid gland. Therapeutic use of steroid hormones. Drugs in the treatment of respiratory disorders and diseases. Drugs in the treatment of gastrointestinal disorders and diseases.

Practical education

Overview of registered drugs according to pharmacotherapeutic groups discussed. Filling out the application form for adverse drug reactions.

Literature

Compulsory

1. Brenner G. and Stevens C. Brenner and Stevens' Pharmacology, 5th Edition, Elsevier, 2017;
2. Ritter J, Flower R, Henderson G, Loke Y.K, MacEwan D, Rang H. Rang and Dale's Pharmacology. 9th Edition, Elsevier, 2019;

Additional

1. Katzung BG. Basic and Clinical Pharmacology. 14th Edition, McGraw-Hill Education, 2017;
2. BNF. British Medical Association and Royal Pharmaceutical Society of Great Britain (any edition newer than 2015).

Number of active classes	**Theoretical classes:** 45	**Practical classes:** 30

Teaching methods Theoretical and practical

Student activity assessment (maximally 100 points)

Pre-exam activities	**points**	**Final exam**	**points**
Lectures	5	Written	
Practices	5	Oral	50
Colloquium	2x20	.....	