



48SJ-PHAT23

ECTS: 4

YEAR: 2022Z

PHARMACOLOGY AND TOXICOLOGY 2/3
PHARMACOLOGY AND TOXICOLOGY 2/3**COURSE CONTENT**
CLASSES

Drugs used in the treatment of Hypertension - Antihypertensive Agents - Diuretic Agents - Vasoactive Peptides Vasodilators & the Treatment of Angina Pectoris - Agents Used in Dyslipidemia - Vasodilators and the treatment of Angina Pectoris - Nitric Oxide - Therapy of acute myocardial infarction Drugs used to treat diseases of blood - Agents Used in Anemias; Hematopoietic Growth Factors - Drugs Used in Disorders of Coagulation Drugs used in the treatment of Heart Failure and Cardiac Arrhythmias - Drugs Used in Heart Failure - Agent Used in Cardiac Arrhythmias Special aspects of Perinatal, Paediatric & Geriatric Pharmacology - Aspects of Perinatal and Pediatric Pharmacology, Special Aspects of Geriatric Pharmacology SEMINAR SUMMARIZING; DRUGS THAT ACT IN THE CENTRAL NERVOUS SYSTEM: ANT SEIZURE DRUGS, DRUGS USED IN ALZHEIMER'S DISEASE, PARKINSONISM & OTHER MOVEMENT DISORDERS, PERINATAL, PEDIATRIC & GERIATRIC PHARMACOLOGY AND CARDIOVASCULAR-RENAL DRUGS + TEST III The eicosanoids and their inhibitors (NAIDs) - The Eicosanoids: Prostaglandins, Thromboxanes, Leukotrienes and related Compounds - Nonsteroidal Anti-Inflammatory Drugs, Disease-Modifying Antirheumatic Drugs, Nonopioid Analgesics and Drugs Used in Gout Opioids and the Drug abuse - Opioids Analgesics and Antagonists - Drugs of Abuse - Serotonin and Ergot Alkaloids. Drugs Used in Treatment of Headache Drugs used in the treatment of gastrointestinal diseases ENDOCRINE DRUGS - Hypothalamic pituitary hormones Thyroid Antithyroid drugs I - Hypothalamic and Pituitary Hormones - Thyroid and Antithyroid Drugs ENDOCRINE DRUGS II - Gonadal hormones, Pancreatic hormones and antidiabetic - Adrenocorticosteroids and Adrenocortical Antagonists - Agents that Affect Bone Mineral Homeostasis ENDOCRINE DRUGS III - Bone mineral homeostasis and vitamins - The Gonadal Hormones and Inhibitors - Pancreatic Hormones and Antidiabetic Drugs SEMINAR SUMMARIZING DRUGS OF THE GASTROINTESTINAL SYSTEM AND ENDOCRINE DRUGS AND EICOSANOIDS AND MODERN PHARMACOTHERAPY OF PAIN + TEST IV

LECTURES

Drugs used in the treatment of hypertension, heart failure and angina pectoris Drugs used in the treatment of cardiac arrhythmias and diseases of the blood.

EDUCATIONAL OBJECTIVE:

The basic aim in the pharmacology and toxicology teaching is learning and understanding by students mechanisms of drug action, adverse and toxic effects and possible interactions which can occur during polytherapy. Special attention is given to pharmacotherapy's safety and efficient drug use in a therapy of particular diseases.

DESCRIPTION OF LEARNING OUTCOMES FOR THE COURSE IN RELATION TO FIELD AND MAJOR LEARNING OUTCOMES

Codes of learning outcomes in a major field of study: M/NM+++,

Codes of learning outcomes in a major area of study: C.U13.+ , C.U14.+ , C.U15.+ , C.U16.+ , C.U17.+ , C.U18.+ , C.U19.+ , C.W.34.+ , C.W.36.+ , C.W.37.+ , C.W.38.+ , C.W.39.+ , C.W.40.+ , C.W35.+ , C.W41.+ , C.W42.+ , C.W43.+ , C.W44.+ , C.W45.+ , K.1.+ , K.2.+ , K.4.+ ,

LEARNING OUTCOMES:**Knowledge**

W1 - The student is able to discuss the mechanisms of action of drugs, adverse effects, toxic, as well as possible interactions that may appear during polytherapy. Has knowledge of the indications, contraindications and dosage of drugs. He knows the rules for the use of antimicrobials, the principles of treatment for poisoning. Has knowledge of the pharmacology of developmental and geriatric age. (C.W34., C.W35., C.W36., C.W37., C.W38., C.W39., C.W40., C.W41., C.W42., C.W43., C.W44., C.W45.)

Skills

U1 - The student demonstrates the ability to use drugs in the therapy of specific diseases. He can save ready-made medicines. Knowing the main groups of drugs that interact, can apply the drug in a given group of patients, e.g. older people, children. (C.U13., C.U14., C.U15., C.U16., C.U17., C.U18., C.U19.)

Social competence

K1 - The student can establish and maintain a deep and respectful contact with the patient. He is guided by the good of the patient, placing them in the first place. Respects medical confidentiality and patient's rights. He is aware of his own limitations and the ability to constantly improve his skills.

BASIC LITERATURE

1) Rang H.P., Dale M.M., Ritter J.M., Flower R., Mirowska-Guzel D., Członkowski A., Farmakologia Rang i Dale, wydanie 2, wyd. Elsevier, 2015 ; 2) Katzung B.G., Trevor A.J., Basic&Clinical Pharmacology, wyd. McGrawHill Education, 2015

SUPPLEMENTARY LITERATURE

1) Hilal-Dandan R., Brunton L., Goodman and Gilman's Manual of Pharmacology and Therapeutics, wyd.

Course/module:

Pharmacology and Toxicology 2/3

Fields of education:

Course status: mandatory
Course group: A - przedmioty podstawowe

ECTS code:**Field of study:** Medicine**Specialty area:** Medicine**Educational profile:** General academic**Form of study:** full-time**Level of study:** uniform master's studies**Year/semester:** 3 / 5**Type of course:**

Classes, Seminar, Lecture

Number of hours per semester/week: Classes: 20, Seminar: 30, Lecture: 10

Teaching forms and methods

Classes(K1, U1, W1) : Auditory exercises - Choosing pharmacotherapy for diseases and disorders presented in class. (W1, U1, K1), Seminar(K1, U1, W1) : General pharmacology, Drug production. Legal regulations regarding medicines. Pharmacodynamics: Fundamentals of pharmacology, Fundamentals of pharmacodynamics, Receptors for drugs and pharmacodynamics, Production of drugs and drug regulations. Basics of pharmacokinetics. Drug interactions. Biotransformation of drugs. Basics of pharmacokinetics. Pharmacokinetics: Temporary course of action of the drug, Target concentration, Intervention in target concentration, Interpretation of drug concentration measurements, Drug interactions, Biotransformation of drugs, Clinical significance of drug metabolism. Pharmacotherapy safety. Harmful effects of drugs. General anesthetic, local anesthesia, skeletal muscle relaxants., Lecture(K1, U1, W1) : Lecture presentation of medicines and pharmacotherapy principles. (W1, U1, K1)

Form and terms of the verification results:

CLASSES: Colloquium test - null(K1, U1, W1) ; SEMINAR: Colloquium test - Presentation of drug groups and indications for therapy. Characteristics of individual substances (W1, U1, K1). Written verification of student's knowledge. It is necessary to get 67% to pass the test (K1, U1, W1)(K1, U1, W1) ; LECTURE: Colloquium test - It is necessary to get 67% to pass the test (K1,U1, W1)(K1, U1, W1)

Number of ECTS 4**points:**
Language of instruction: English**Introductory courses:**

biochemistry, physiology

Preliminary requirements:

Understanding of the basic physiological processes in the organism on the cellular, organic and systemic level – understanding of pathomechanisms of central nervous system diseases

Name of the organizational unit offering the course:

Person in charge of the course:

dr wet. Piotr Jakubowski, , dr n. med.
Krzysztof Nosek,

Course coordinators:

Notes:

Detailed description of the awarded ECTS points - part B

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The awarded number of ECTS points is composed of:

1. Contact hours with the academic teacher:

- participation in: classes	20 h.
- participation in: seminar	30 h.
- participation in: lecture	10 h.
- consultation	2 h.
	62 h.

2. Student's independent work:

- 1 godzina została zrealizowana jako samodzielna praca studenta: przygotowanie do kolokwium, przygotowanie do zaliczenia końcowego. 1 h.

1 h.

1 ECTS point = 25-30 h of the average student's work, number of ECTS points = 63 h : 25 h/ECTS = 2,52 ECTS
on average: **4 ECTS**

- including the number of ECTS points for contact hours with direct participation of the academic teacher: 2,48 ECTS points,
- including the number of ECTS points for hours completed in the form of the student's independent work: 1,52 ECTS points,