



## Clinical Pharmacology

### 1. IMPRINT

<b>Academic Year</b>	2023/2024
<b>Department</b>	Faculty of Dental Medicine
<b>Field of study</b>	English Dentistry Division
<b>Main scientific discipline</b>	Medical Science
<b>Study Profile</b>	General academic
<b>Level of studies</b>	Uniform Master's studies
<b>Form of studies</b>	Stationary
<b>Type of module / course</b>	Obligatory
<b>Form of verification of learning outcomes</b>	Oral credit
<b>Educational Unit / Educational Units</b>	Chair and Department of Experimental and Clinical Pharmacology Centre for Preclinical Research and Technology CePT, Banacha 1b, 02-927 Warsaw, tel. (+48) 022 1166160

<b>Head of Educational Unit / Heads of Educational Units</b>	Prof. Dagmara Mirowska-Guzel, MD, PhD tel. (+48) 022 1166160
<b>Course coordinator</b>	Dr. Aleksandra Wisłowska-Stanek, aleksandra.wislowska-stanek@wum.edu.pl
<b>Person responsible for syllabus</b>	prof. dr hab. med. Dagmara Mirowska-Guzel dmirowska@wum.edu.pl tel.: (+48) 22 116 61 16 Coordinator of the Didactic Dr. Aleksandra Wisłowska-Stanek, aleksandra.wislowska-stanek@wum.edu.pl
<b>Teachers</b>	Ewa Widy-Tyszkiewicz MD, PhD, SciD; ewa.widy-tyszkiewicz@wum.edu.pl Marcin Granat, MSc; marcin.m.granat@wum.edu.pl Agata Karpińska MD, PhD; agata.karpinska@wum.edu.pl Maciej Niewada MD, PhD, SciD; maciej.niewada@wum.edu.pl Aleksandra Wiśłowska-Stanek, MD, PhD; awislowska@wum.edu.pl

## 2. BASIC INFORMATION

<b>Year and semester of studies</b>	IV year, VII semester	<b>Number of ECTS credits</b>	2.0
<b>FORMS OF CLASSES</b>		<b>Number of hours</b>	<b>ECTS credits calculation</b>
<b>Contacting hours with academic teacher</b>			
Lecture (L)		5	0.2
Seminar (S)		25	1.0
Discussions (D)			
e-learning (e-L)			
Practical classes (PC)			
Work placement (WP)			
<b>Unassisted student's work</b>			
Preparation for classes and completions		20	0.8

## 3. COURSE OBJECTIVES

O1	The knowledge in the field of planning and conducting clinical trials according to the principles and legal regulation of UE.
O2	Becoming familiar with the procedures in the process of safety monitoring after drug registration
O3	Knowledge about resources of information on pharmacology

04	Knowledge update about safety profile of drugs commonly used in the dentistry.
05	Knowledge about medical and legal aspects of the use of cannabonoids.
06	Knowledge about pharmacotherapy of neuropathic pain.
07	Gaining knowledge how to conduct pharmacotherapy pharmacotherapy in emergency situations.
08	Knowledge enabling the differentiating the diet supplement from the drug.
09	Gaining the knowledge about the rules of anesthesia in dentistry and basic drugs used in this condition.

#### 4. STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING

Code and number of effect of learning in accordance with standards of learning	Effects in time
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##### Knowledge – Graduate\* knows and understands:

C.W18.	mechanisms of action of drugs as well as the pharmacokinetics and biotransformation of individual drug groups;
C.W19.	the indications, contraindications to the use of drugs, their dosage, side effects and toxic effects, and drug interactions;
C.W21.	principles of preventing and combating pain and anxiety, as well as the pharmacology of medications used in life-threatening situations;
F.W3.	viral, bacterial and fungal flora of the oral cavity and its importance;
F.W4.	symptoms, course and management in selected disorders of the oral cavity, head and neck diseases considering age groups;
F.W13.	principles of antibiotic therapy and antibiotic resistance;
F.W16.	principles of anesthesia in dentistry and basic pharmacological agents;

##### Skills– Graduate\* is able to:

C.U8.	select medicines in appropriate doses and prescribe medicines according the indications;
F.U8.	conduct the treatment of acute and chronic odontogenic and non-odontogenic inflammatory processes within soft tissue of the oral cavity, peridontium and jaw bone;
F.U10.	prescribe medications taking into account their interactions and side effects;

#### 5. ADDITIONAL EFFECTS OF LEARNING

Number of effect of learning	Effects of learning i time
<b>Knowledge – Graduate knows and understands:</b>	
K1	-
<b>Skills– Graduate is able to:</b>	
S1	-
<b>Social Competencies – Graduate is ready for:</b>	
SC1	providing the patient with basic information on effectiveness, limitation and risk associated with drugs commonly used in understandable and accessible way

6. CLASSES		
Form of class	Class contents	Effects of Learning
Lecture	L1 - Lecture 1. NSAIDs - side effect. Content: lecture about a side effects of NSADs (non-steroidal antiinflammatory drugs) based on reviews and metaanalysis.	CW19
	L2 - Lecture 2. Cannabinoids. Content: presentation of the medical and legal aspects of use of cannabinoids	C.W19.
	L3 - Lecture 3. <i>Treatment of neuropathic pain.</i> Content: Pharmacotherapy of neuropathic pain.	C.W21.
Seminar	S1 - Seminar 1 – Good clinical practice Content: seminar concerns preregistration drug evaluation – rules good clinical practice and good laboratory practice.	C.W18.
	S2 – Seminar 2 - Pain management in dentistry. <i>Content:</i> lecture devoted pain pharmacotherapy.	C.W21.
	S3 - Seminar 3 - Recommendations in the chemotherapy. Part 1 Content: chemotherapeutics use in the dental practice	C.W19, CU8, F.W3, F.W4, F.W13, Fu8, F.U10, K1
	S4 - Seminar 4. Recommendations in the chemotherapy. Part 2 Content: chemotherapeutics use in the dental practice	C.W19, CU8, F.W3, F.W4, F.W13, Fu8, F.U10, K1
	S5– Seminar 5- monitoring of the safety of pharmacotherapy and reliable sources of information about drugs.  <i>Content:</i> the first part of the seminar concerns reporting of the adverse effects of medical product, the second part is devoted to reliable sources of information about drugs (clinical trials, meta-analysis, summary of medical products).	C.W19, C.U8.

S6 – Seminar 6. Pharmacotherapy of medical emergency and acute states part 1.  Content: seminar concerns pharmacotherapy emergency states in dentistry office (e.g. cardiac arrest: rhythms requiring defibrillation and rhythms not requiring defibrillation; acute coronary syndrome; hypertensive crisis; anaphylactic shock; status epilepticus), are presented therapeutic recommendations.	C.W21
S7– Seminar 7. Pharmacotherapy of medical emergency and acute states part 2.  Content: seminar concerns pharmacotherapy emergency states in dentistry office (e.g. cardiac arrest: rhythms requiring defibrillation and rhythms not requiring defibrillation; acute coronary syndrome; hypertensive crisis; anaphylactic shock; status epilepticus), are presented therapeutic recommendations.	C.W21.
S8 – Seminar 8 – Anesthesia in dentistry.  Content: seminar concerns the principles of anesthesia in dental procedures and basic pharmaceuticals used in anesthesia.	F.W16.
S9- Seminar 9 – diet supplements and herbal drugs  Content: presents the facts about food supplements and herbal drugs	C.W19.

## 7. LITERATURE

### Obligatory

Katzung and Trevor's Pharmacology Examination and Board Review, 13<sup>th</sup> Edition 2021

### Supplementary

Goodman and Gilman's the Pharmacological Basis of Therapeutics. McGraw-Hill Professional; 2018

## 8. VERIFYING THE EFFECT OF LEARNING

Code of the course effect of learning	Ways of verifying the effect of learning	Completion criterion
C.W18., C.W19., C.W21., E.W18., F.W3, F.W4., F.W16., E.U3., E.U9.	Oral credit Retake - oral	>50%

## 9. ADDITIONAL INFORMATION

1. Seminars and lectures are obligatory.
2. One absence at seminars and one absence at lectures during a semester is allowed.
3. Only one class representative can contact the pharmacology teachers (via e-mail or mobile phone) on the behalf of the class.
4. All seminars and lectures are provided in the pdf version by teachers responsible for particular topics. These materials will be delivered in the web site [www.e-learning.wum.edu.pl/en](http://www.e-learning.wum.edu.pl/en) within 7 days after seminar or lecture.
5. All applications concerning the didactic problems should be addressed to Head of the Department: Professor Mirowska-Guzel

and directed to the Coordinator. The decision is made by Head of the Department in the consultation with the Coordinator of the Pharmacology.

6. Didactic secretariat: Department of Experimental and Clinical Pharmacology, Centre of Preclinical Research and Technology, CePT, Medical University of Warsaw, Banacha 1b, 02-097 Warsaw, Poland; open: Monday –Friday: 9.00-15.00.. Phone: (+48) 22 116 61 60, fax: (+48) 22 116 62 02 ; e-mail: farmakologia@wum.edu.pl

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**ATTENTION**

The final 10 minutes of the last class in the block/semester/year should be allocated to students'  
Survey of Evaluation of Classes and Academic Teachers