

Project Number: 2022-1-RO01-KA220-HED-000087854

# **ADMINISTRATION AND INTERACTIONS OF DRUGS**

### **LEARNING OUTCOMES**

#### KNOWLEDGE

- ACQUIRING ESSENTIAL KNOWLEDGE ABOUT HOW TO ADMINISTER MEDICINES
- ACQUISITION OF KNOWLEDGE REGARDING THE MOST IMPORTANT CLASSES OF DRUGS, I.E. ORGANOTROPIC MEDICATION, GROUPS OF PHARMACON FROM A THERAPEUTIC POINT OF VIEW
- KNOWLEDGE OF THE INDICATIONS, CONTRAINDICATIONS, ADVERSE EFFECTS, PHARMACOKINETICS, DOSAGE, ASSOCIATIONS AND DRUG INTERACTIONS WITHIN EACH MEDICATION.
- During the practical work, the students know the solid, semi-solid, soft, liquid and gaseous pharmaceutical forms, typified, magisterial and officinal, some notions of pharmacovigilance are presented to them. In the framework of special pharmacology, the main groups of drugs are presented to them, on devices and systems and in the form of samples and boxes of medicinal preparations.
- KNOWLEDGE OF THE NOTIONS OF GENERAL PHARMACOLOGY, AS WELL AS THE ACQUISITION OF PHARMACOKINETIC, PHARMACODYNAMIC, PHARMACOTOXICOLOGICAL AND DOSAGE ASPECTS REGARDING THE FOLLOWING GROUPS OF DRUGS: MEDICATION WITH ACTION ON PERIPHERAL NEUROTRANSMISSION AND TISSUE ACTIVE SUBSTANCES; THE MEDICATION OF THE CENTRAL NERVOUS SYSTEM, THE MEDICATION OF THE CIRCULATORY SYSTEM AND THE BLOOD SYSTEM, THE MEDICATION OF THE RESPIRATORY, DIGESTIVE, EXCRETORY, AND UTERINE SYSTEMS; ENDOCRINEMETABOLIC MEDICATION AND THE INFLAMMATORY PROCESS, ANTIMICROBIAL, ANTIPARASITIC, ANTICANCER MEDICATION.

#### SKILLS

- ADMINISTRATION OF TREATMENTS ACCORDING TO DOCTOR'S PRESCRIPTIONS.
- RESPONSIBLE EXECUTION OF PROFESSIONAL TASKS, UNDER CONDITIONS OF LIMITED AUTONOMY AND QUALIFIED ASSISTANCE.

### COMPETENCES

- PERFORMING PRACTICAL ACTIVITIES IN A TEAM, ESTABLISHING INDIVIDUAL RESPONSIBILITIES WITHIN MULTIDISCIPLINARY PROJECTS
- EFFECTIVE USE OF INFORMATION SOURCES, COMMUNICATION RESOURCES, AND ASSISTED PROFESSIONAL TRAINING (INTERNET PORTALS, SPECIALIZED SOFTWARE APPLICATIONS, DATABASES, ONLINE COURSES, ETC.)
- APPLYING THE PRINCIPLES OF ETHICS AND PROFESSIONAL ETHICS IN THE FIELD
- PRIORITIZING THE TREATMENT ACCORDING TO THE AFFECTED ORGANS AND SYSTEMS

### **ECTS CREDITS**

2 ECTS

Theoretical courses	Teaching Methodology	Number	of
		hours	





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Introduction. Branches of pharmacology. Elements of	Oral presentation + multimedia, E-	1
general pharmacokinetics. Elements of general	learning. Online platform	
pharmacodynamics.		
Drug-drug, drug-food interactions. Elements of general	Oral presentation + multimedia, E-	1
pharmacotoxicology.	learning. Online platform	
Cholinergic medication: parasympathomimetics and	Oral presentation + multimedia, E-	1
parasympatholytics. Curatives. Botulinum toxin. Adrenergic	learning. Online platform	
medication: sympathomimetic and sympatholytic.		
Local anesthetics. General anesthetics. Hypnotics,	Oral presentation + multimedia, E-	1
sedatives, minor tranquilizers (anxiolytics), central muscle	learning. Online platform	
relaxants.		
Antidepressants. Neuroleptics. Antiepileptics. Medication	Oral presentation + multimedia, E-	1
of neurodegenerative diseases.	learning. Online platform	
Opioid analgesics and antagonists. Antipyretic analgesics.	Oral presentation + multimedia, E-	1
Antimigraine medication.	learning. Online platform	
Nonsteroidal anti-inflammatory drugs. Corticosteroids and	Oral presentation + multimedia, E-	1
ACTH. The specific medication of rheumatoid arthritis.	learning. Online platform	
Antigout. H1-blocking antihistamines.		

Practical activities	Teaching Methodology	Number of hours
Origin of medicines. The name of the drugs. Medicinal substances and forms (preparations). Solid medicinal forms. Semisolid and soft medicinal forms. Liquid medicinal forms. Aerosols. Drug interactions (drug-drug, drug-food).	Practical demonstrations	1
Medicines that act in the cholinergic and adrenergic field - representatives, pharmacotherapeutic and toxicological aspects. Case presentations. Medicines with local anesthetic effect. Hypnotic, sedative, anxiolytic, central muscle relaxants - representatives, pharmacotherapeutic and toxicological aspects. Case presentations.	Practical demonstrations, case presentations	1
Neuroleptics. Antidepressants. Antiepileptics. Antiparkinsonian drugs. Representatives, pharmacotherapeutic and toxicological aspects. Case presentations. Opioid analgesics. Antipyretic analgesics. Antimigraine. Representatives, pharmacotherapeutic and toxicological aspects. Case presentations.	Practical demonstrations, case presentations	1
Nonsteroidal anti-inflammatory drugs. Corticosteroids and ACTH. The specific medication of rheumatoid arthritis.	Practical demonstrations, case	1





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Antigout. H1-blocking antihistamines. Representatives, pharmacotherapeutic and toxicological aspects. Case presentations. Medication of the respiratory system. Medication of the cardiovascular system and diuretics. Representatives, pharmacotherapeutic and toxicological aspects. Case presentations.	presentations	
Medication of the digestive system and blood. Representatives, pharmacotherapeutic and toxicological aspects. Case presentations. Endocrine-metabolic medication. Medication of uterine contractions. Representatives, pharmacotherapeutic and toxicological aspects. Case presentations.	Practical demonstrations, case presentations	1
Anti-infective medication I (antibiotics and antibacterial chemotherapy). Representatives, pharmacotherapeutic and toxicological aspects. Case presentations.	Practical demonstrations, case presentations	1
Anti-infective medication II (antimycotic, antiviral, antiprotozoal, anthelmintic). Anticancer medication. Representatives, pharmacotherapeutic and toxicological aspects. Case presentations.	Practical demonstrations, case presentations	1

### References

Patrick Adams, Leland N. Holland, Carol Urban - Pharmacology for nurses: a pathophysiologic approach
 4th ed.2014, ISBN-13: 978-0-13-302618-4

Evaluation	
Course activities – percent of the final grade - 50%	Practical activities – percent of the final grade - 50%
Final mark	

## **Training Methods**

- Lectures
- Independent Study

## **Innovative Digital Training Methods**

- Online platform
- E-learning

