

<b>POLI</b> <b>ESCOLA SUPERIOR</b> <b>SAÚDE</b> <b>TÉCNICO</b> <b>GUARDA</b>	<b>SUBJECT DESCRIPTION</b>	<b>MODELO</b> PED.015.03
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<i>Course</i>	<b>Pharmacy – 1<sup>st</sup> cycle</b>					
<i>Subject</i>	<b>Pharmacotherapy II</b>					
<i>Academic year</i>	2023-2024	<i>Curricular year</i>	3rd	<i>Study period</i>	2nd semester	
<i>Type of subject</i>	Compulsory	<i>Student workload (H)</i>	Total: 108	Contact: T15; TP: 20; PL: 25	<i>ECTS</i>	4
<i>Professor(s)</i>	Maria de Fátima dos Santos Marques Roque					
<input checked="" type="checkbox"/> <i>Area/Group Coordinator</i> <input type="checkbox"/> <i>Head of Department</i>		Maria de Fátima dos Santos Marques Roque Tânia Sofia Martins Martinho				

### PLANNED SUBJECT DESCRIPTION


#### 1. LEARNING OBJECTIVES

In the final students had to answer to the following educational objectives:

- Integrate knowledge of drug effects in the context of the pathophysiology of studied diseases;
- Apply their knowledge to the different pharmacological clinical situations;
- Analysis of clinical cases and discuss advantages and disadvantages to use some drugs;
- Understand therapeutic guidelines;
- Understand the role of pharmacy professionals in the management of symptoms and complaints of patients;
- Identify susceptible situations of being treated with selfmedication and intervention at the pharmacy.

The skills acquired by students were:

- Correct interpretation of the medical prescription;
- Inform and advise on the safe use of medication;
- Identify the causes of treatment failure;
- Identify pathophysiological mechanisms of diseases and main pharmacotherapeutic interventions;
- Evaluate the benefice/risk of different therapeutics;
- Know and be able to inform about nonpharmacological measures,
- Know how to advise OTC medicines.



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## 2. PROGRAMME

Pharmacotherapy of cardiac and vascular diseases

Pharmacotherapy of gastrointestinal disorders

Hormonal and metabolic pharmacotherapy

Pharmacotherapy of reproductive system

Pharmacotherapy of eye disorders

Pharmacotherapy of dermatological disorders

Pharmacotherapy of otorhinolaryngological disorders

Corrective treatment of acid-base-equilibrium disorders

Management of drug overdose and poisonings

Pharmacotherapy of clinical situations susceptible of being treated with OTC drugs.

Pharmacological and non-pharmacological intervention in the pharmacy.

## 3. COHERENCE BETWEEN PROGRAMME AND OBJECTIVES

To allow students to advise and select the safe, effective and rational medicines for human use, it was essential that students could identify pharmacotherapeutic groups and drugs marketed in Portugal and also could identify their main therapeutic indications, their side effects and the most important drug interactions.

## 4. MAIN BIBLIOGRAPHY

Maria Teresa Herdeiro, Fátima Roque, Adolfo Figueiras and Tânia Magalhães Silva, New Insights into the Future of Pharmacoepidemiology and Drug Safety, IntechOpen, 2021, Print ISBN 978-1-83968-596-5, Online ISBN 978-1-83968-597-2, eBook (PDF) ISBN 978-1-83968-598-9. <https://www.intechopen.com/books/9833>

Rodrigues Daniel A.; Herdeiro, Maria Teresa; Figueiras, Adolfo; Coutinho, Paula; Roque, Fátima. "Elderly and Polypharmacy: Physiological and Cognitive Changes". In Frailty in the Elderly - Physical, Cognitive and Emotional Domains Londres, Reino Unido: DOI: 10.5772/intechopen.92122.

Fátima Roque. "Envelhecimento e Polimedicação" In Desenvolvimento Social Envelhecimento e Saude, Instituto Politécnico da Guarda, 2011 ISBN 978-972-8681-40-1; 98-124.

Wells B.G; DiPiro J. T., Schwinghammer T. L., Hamilton Ci.W., Pharmacotherapy Handbook, Seventh Edition. McGraw Hill Inc, 2008

Wells B.G; DiPiro J. T., Pharmacotherapy. A Pathophysiologic approach, Seventh Edition. New York.McGraw Hill Inc, 2008



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*Handwritten signature/initials in blue ink.*

Koda-Kimble and Young's Applied Therapeutics: The Clinical Use of Drugs, Tenth Edition; Wolters Kluwer Health, 2012

INFARMED, Prontuário Terapêutico, *versão online*

Osswald W., Guimarães, S. (2006) - Terapêutica Medicamentosa e suas Bases Farmacológicas, 5ª ed, Porto Editora, 2006

Garret J. Ed. Lit.; Osswald W. Ed. Lit.; Guimarães S. ed. Lit. - Terapêutica Medicamentosa e suas Bases Farmacológicas: Manual de Farmacologia e Farmacoterapia. Porto: Porto Editora, Lda.

American Pharmaceutical Association, Handbook of Non Prescription Drugs, Publications Professional, 11th ed., Washington.

Rang, H.P. Dale, M.M., Ritter J.M., Moore, P.K. (2006) - Rang and Dale's Pharmacology, 6ª ed, Elsevier

Speight, T.M. ed. Lit.; Holford, H.G. ed. Lit. - Avery's Drug Treatment. Auckland, Adis International.

Soares, M. Augusta (2002) - Medicamentos não prescritos. Aconselhamento Farmacêutico, 2ª ed., Publicações Farmácia Portuguesa, Lisboa.

Aronson J.K. (2004) - Tratado de Farmacologia Clínica e Farmacoterapia, Nova Guanabara.

Fátima Roque (2023) – Apontamentos de Farmacoterapia.

Fátima Roque, Tânia Martinho (2023) – Caderno de exercício teórico-práticos e práticos

Fátima Roque (2023) - Farmacologia Geral, Textos completos.

## 5. TEACHING METHODOLOGIES (INCLUDING EVALUATION)

The teaching methodologies are adapted to the theoretical teaching with masterly presentation of the contents and their systematization in an integrated way, to the theoretical-practical teaching with resolution of clinical cases and analysis of technical and scientific documents, and, to the practical teaching with resolution and demonstration of practical cases.

The assessment of this subject was constituted by a score of 75% based on the written tests, 10% on ongoing assessment, and 15% on the group work that consists in the elaboration and presentation of a practical simulated situation in community pharmacy.

## 6. COHERENCE BETWEEN TEACHING METHODOLOGIES AND OBJECTIVES

The teaching methodologies were consistent with the objectives of the curricular unit and the course. The lectures with exposition methodology encouraging students to ask questions and make arguments based on the previous knowledge were fundamental to achieve the objectives related to knowledge and memorization of concepts. On the other hand, the practical classes, in which students developed continuous work in the classroom, related to knowledge acquired in lectures allowed the development of critical analysis and solving problems, being very important to achieve objectives related to attitudes and behaviors, important for pharmaceutical intervention.

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The students were incentivized for the research information on sources referenced for the construction of a final work for oral presentation.

As an active study methodology, in the beginning of each class the students are asked to identify the key points of the matters studied in the last class, for integration of content submitted and, in each class, a brief summary was made of the total content presented and studied in the previous lesson, reforming the importance of the contents and learning objectives for the class. The questions asked in class allow to create a space for debate and resolution of doubts.

A written evaluation, with direct questions and development, allowed to evaluate the knowledge acquired by the students, and the theoretical-practice evaluation allow the integration of the knowledge, incentivizing students to develop critical thinking and apply the knowledge acquired.

The initial recommended literature is complemented by the reading of scientific articles tailored to each theme.

## 7. ATTENDANCE

The contact hours for the theoretical and practical classes are of mandatory attendance and students are obligate to be in a minimum of 75% of the total hours allocated in the plan of study for this type of classes. Students covered by a special statute have the possibility to develop practical work at a schedule agreed.

## 8. CONTACT DETAILS AND OFFICE HOURS

### **Fátima Roque:**

Office 16 (ESS/IPG) | 271220200 – Ext. 7216 | Tuesday: 14.00 – 16.00h | Thursday: 10.00-12.00h

Email: froque@ipg.pt

### **Tânia Martinho:**

Office 4B | Monday: 10h00 – 12h00 | Tuesday: 9h30m – 11h30m

Email: tania.martinho@ipg.pt

## DATE

20 de março de 2024

## SIGNATURES

