

**MEDICAL UNIVERSITY – PLOVDIV
FACULTY OF PHARMACY**

**PHARMACEUTICAL CARE
CURRICULUM**

Adopted by the Department Council, Protocol № 01/20.02.2019

Enforced by the Pharmaceutical Faculty Council, Protocol № 01/27.02.2019

MEDICAL UNIVERSITY - PLOVDIV

PHARMACEUTICAL CARE

CURRICULUM

Subject title:

“Pharmaceutical care”

Subject type according to the Uniform Government Requirements (UGR):

Mandatory

Educational level:

Master (M)

Forms of education:

Lectures, practical classes, self-tuition

Course duration:

One semester

Teaching hours

30 teaching hours of lectures, 30 teaching hours of practical classes

Teaching aids:

Multimedia presentations, discussions, case studies.

Elements, forming the grade

Colloquium – test examination, written examination and case study at the end of semester.

Aspects of grade formation:

Participation in discussions, case studies.

Terminal examination:

Yes (written examination)

State examination:

No

Principal lecturer:

Habilitated lecturers from the Department of Pharmaceutical Science, “Social Pharmacy and Pharmaceutical Legislation and Regulation” division

Assoc. Prof. Stanislav Georgiev, PhD

Assoc. Prof. Daniela Grekova-Kafalova, PhD

Department:

Pharmaceutical science

ANNOTATION

We live in times, when patients show greater interest in receiving more information regarding the treatment of their disease. This phenomenon, called “ravenous appetite” for medicinal information, emerged at the same time as the professional and regulatory literature substantiated the necessity of pharmaceutical service, aimed at the patient, called “Pharmaceutical care”. The need of pharmaceutical care has been supported by the fact that more than 50% of prescribed medicines are taken incorrectly. Pharmaceutical care represents the new pharmaceutical service of patients in the pharmacies, based on the cost – effectiveness approach that includes as a mandatory element consulting of the patient. The mission of pharmaceutical practitioners today is to support patients in achieving better utilisation of prescribed medicines. According to MPHMA, as adopted in 1995, as amended and supplemented in 2000, the term “dispensing” of medicines now includes as a mandatory component consultation of patient. Thus, MPHMA stipulates that the pharmacist become more active when providing the patient with pharmaceuticals and guarantee that the patient has fully understood the medical treatment prescribed to him and is going to abide by the prescribed medicinal regime to achieve the desired therapeutic result. The pharmacists’ education enables them always to know what information to communicate to the patient. However, to be more convincing, to be able to provide the suitable feedback, to learn to listen efficiently and to convince the patient to confide in them, they must as well receive the necessary knowledge and skills for efficient communication.

The third section pays special attention to the strategies for approving of patients’ compliance with their medication. Interviewing technique, communication needs of specific groups of patients and ethical patient care are offered to allow learning the skills that will guarantee better health for the people approaching for help their most trustworthy and dignified health specialist – their pharmacist.

The next several sections from the curriculum are dedicated to the essence of “Pharmaceutical care” concept and the main steps to be taken for developing of a good therapeutic plan for each patient, as well as for efficient monitoring. Since 1993, annually the International Pharmaceutical Federation has organized congresses and symposia through its communal pharmacies section in order to support the introduction of pharmaceutical care in pharmaceutical practice.

Since Prof. Linda Strand and Prof. Charles Hepler announced the pharmaceutical care concept, it has been embraced enthusiastically in many countries. Through introduction of pharmaceutical care, pharmacists realize something critical for the society – they assume their share of responsibility in solving the problems of medicinal therapy of patients in accordance with their professional expertise. Pharmaceutical care is not a field that can be monopolized by pharmacists. Medical practitioners, nurses and pharmaceutical technicians also have an important role. However, nothing could prevent pharmacists from assuming their responsibility and perform the leading function of coordinators in the cooperation with other specialists and patients for improving of medicinal therapy.

MAIN TASKS OF THE CURRICULUM

The main goal of this course of lectures is to acquaint the students with the essence of the good pharmaceutical practice and pharmaceutical care concepts, as well as to build-up habits in advising the patients with the most common slight indispositions and symptoms in case of self-medication and dispensing medicines without prescriptions.

RESULTS ANTICIPATED

Upon completion of the course, the students should have acquired the following knowledge and skills:

- the essence of pharmaceutical care concept;
- main therapeutic behaviour algorithms in case of regular health problems requiring self-medication;
- orientation in case of work with patients with the studied health problems;
- individual development of therapeutic behaviour algorithm in case of dispensing of medicines without prescription.

LECTURES – THESES

Subject	Examinations	Classes			Classes in year/semester						
	Semester	Total	Lectures	Practical Classes	IV	V	VI	VII	VIII	IX	X
Pharmaceutical care	VIII	60	30	30	-	-	-	-	30/30	-	-

LECTURES SCHEDULE

Course of Study IV, Semester VIII

№	TOPIC	HOURS
1.	Essence of the “Pharmaceutical care” concept. The Pharmacist and the process of drug use. Integration of pharmaceutical care and pharmacies practice. Ways to modify the process of drug use. Compliance and non-compliance.	2
2.	Communication (intercourse) in the patients’ care context.	2
3.	Major principles and elements of the interpersonal relationships.	2
4.	Perception (adoption) and communication. Perception, plausibility, conviction. Non-verbal communications at the pharmacy. Barriers to the pharmacist-patient communication.	2
5.	Hearing and compassionate reply. The incredible aspects of hearing. The skill to listen attentively. Asserting the rights.	2
6.	Interviewing and evaluation. Components of the effective interview: listening, approaching, silence.	2
7.	Ethical care for the patients. Informed consent. Confidentiality.	2
8.	Communication in special cases. Communication with elderly patients. Psycho-social factors.	2
9.	Pharmaceutical care and self-medication. Understanding and respecting the patient’s viewpoint. Response to the patient’s symptoms – when to treat and when to consult a medical specialist. Drugs “over-the-counter” – drugs and pharmaceutical care.	2
10.	"Pharmaceutical care” to improve patients’ results through pharmacist’s intervention. Management of organizational changes. Pharmaceutical care for patients with chronic diseases of the lower respiratory tract.	2
11.	"Pharmaceutical care” to improve patients’ results through pharmacist’s intervention. Pharmaceutical care for chronically ill patients. Pharmaceutical care for patients with diabetes.	2
12.	"Pharmaceutical care” to improve patients’ results through pharmacist’s intervention. Pharmaceutical care for chronically ill persons. Pharmaceutical care for patients with hypertension and CVD.	2
13.	"Pharmaceutical care” to improve patients’ results through pharmacist’s intervention. Pharmaceutical care for patients with mood disorders (affective disorders), depressions and mental disorders.	2
14.	"Pharmaceutical care” to improve patients’ results through pharmacist’s intervention. Pharmaceutical care for patients with disorders of bone density and structure.	2
15.	"Pharmaceutical care” to improve patients’ results through pharmacist’s intervention. Pharmaceutical care for children.	2

PRACTICAL CLASSES SCHEDULE

Course of study IV, Semester VIII

№	TOPIC	Hours
1.	Essence of the “Pharmaceutical care” concept. The Pharmacist and the process of drug use.	2
2.	Pharmaceutical care at self-medication with drugs over-the-counter. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.	2
3.	Strategies to improve patients’ consent. Types of patients. Factors affecting patients’ consent.	2
4.	Pharmaceutical care for diabetes patients. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.	2
5.	Pharmaceutical care for asthma patients. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients	2
6.	Pharmaceutical care for patients with hypertension. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.	2
7.	Pharmaceutical care for patients with CVD. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.	2
8.	Pharmaceutical care for patients with osteoporosis. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients	2
9.	Pharmaceutical care for patients with arthritis. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.	2
10.	Pharmaceutical care for patients with depression. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.	2
11.	Pharmaceutical care for patients with oncologic diseases. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.	2
12.	Pharmaceutical care for elderly patients. Polypragmasia – practical solutions. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.	2

13.	Colloquium on Topics 1 - 12	2
14.	Pharmaceutical care for children.	2
15.	Practical cases for the studied patients' groups.	2

LECTURES - THESES

Lecture № 1 – 3 hours

Essence of the “Pharmaceutical care” concept. Compliance and non-compliance.

1. Essence of the “Pharmaceutical care concept.
2. The Pharmacist and the process of drug use.
3. Safety and effectiveness of the process of drug use.
4. Major tasks, functions and stages of pharmaceutical care. Pharmaceutical care in pharmaceutical practice – monitoring of therapeutic results.
5. Compliance.
6. Non-compliance.

Lecture № 2 – 3 hours

Communication (intercourse) in patients' care context.

1. Communication (intercourse) in patients' care context.
2. Importance of communication in realizing the pharmacist's responsibility in patients' care.
3. Models of drug prescribing processes and drug use from patients' viewpoint.

Lecture № 3 – 3 hours

Main principles and element of interpersonal relationships

1. Main principles and element of interpersonal relationships.
2. Elements of the interpersonal communications model.
3. Pharmacist's responsibility in the model of interpersonal communications. Words and their context.
4. Coordination of verbal and non-verbal communications.
5. Feedback – a way to check the sense of the message. Improvement of pregnancy communication.

Lecture № 4 – 3 hours

Perception (adoption) and communication.

1. Perception (adoption) and communication.
2. Perception, plausibility, conviction.
3. Non-verbal communications at the pharmacy. Barriers to the pharmacist-patient communication.
4. Verbal/non-verbal communication relationship. Elements of non-verbal communication.

5. Non-verbal environmental factors. Biasing non-verbal signs and communications and their overcoming. Environmental barriers. Personal barriers. Patients' barriers. Administrative and financial barriers.

Lecture № 5 – 3 hours

Listening and compassionate reply. The incredible aspects of listening.

1. Listening and compassionate reply. Ability of careful listening.
2. Ability of summarising the received information. Compassion and effective communication.
3. Types of replies: assessing, advising, summarising, reassuring, sounding (investigative), understanding.
4. Compassionate opinion. The incredible aspects of listening. Controlling.
5. Asserting the rights. Theoretical grounds.
6. Tolerance and patients. Tolerance and physicians. Tolerance and pharmacy co-workers. Tolerance and employers.
7. Consent and disagreement with criticism.

Lecture № 6 – 3 hours

Interviewing and evaluation. Components of the effective interview: listening, approaching, silence.

1. Interviewing and evaluation.
2. Components of the effective interview: listening, approaching, silence.
3. Interview stages. Types of interviews.

Lecture № 7 – 3 hours

Ethical care for the patients. Informed consent. Confidentiality.

1. Ethical care for the patients. Informed consent.
2. Confidentiality, patient-medical practitioner relationship.
3. Resolving ethical dilemmas. Relationships pharmacist – medical practitioner and pharmacist – patient.
4. Patients' education. Internet. Distant education.

Lecture № 8 – 3 hours

Communication in special cases. Communication with elderly patients. Psycho-social factors.

1. Communication in special cases.
2. Intercourse with elderly patients.
3. Psychosocial factors.
4. Patients with hearing or visual disorders (disabled).
5. Intercourse with seriously ill patients.
6. Intercourse with patients with HIV/AIDS.
7. Intercourse with mentally disordered patients.
8. Intercourse with patients in adolescent age.

Lecture № 9 – 3 hours

Pharmaceutical care and self-medication. Understanding and respecting the patient's viewpoint..

1. Pharmaceutical care and self-medication.
2. Understanding and respecting the patient's viewpoint.

3. Response to the patient's symptoms – when to treat and when to consult a medical specialist.
4. Drugs “over-the-counter” – drugs and pharmaceutical care.

Lecture № 10 – 3 hours

Pharmaceutical care for improving patients' results through pharmacist's intervention.

1. Pharmaceutical care for improving patients' results through pharmacist's intervention.
2. Management of organizational changes.
3. Nimmo – Holland's model for changes in pharmacy practice.
4. Chronic diseases of the lower respiratory tract.

Lecture № 11 – 3 hours

Pharmaceutical care for improving chronically ill patients' results through pharmacist's intervention.

1. Pharmaceutical care for improving patients' results through pharmacist's intervention.
2. Diabetes.

Lecture № 12 – 3 hours

Pharmaceutical care for improving chronically ill patients' results through pharmacist's intervention.

1. Pharmaceutical care for patients with hypertension and CVD.

Lecture № 13 – 3 hours

Pharmaceutical care for improving chronically ill patients' results through pharmacist's intervention.

1. Pharmaceutical care for patients with mood disorders.
2. Depressions and mental disorders.

Lecture № 14 – 3 hours

Pharmaceutical care for improving chronically ill patients' results through pharmacist's intervention.

1. Pharmaceutical care for patients with disorders of bone density and structure.

Lecture № 15 – 3 hours

Pharmaceutical care for improving patients' results through pharmacist's intervention.

1. Pharmaceutical care for children.

PRACTICAL CLASSES - THESES

Practical class № 1 – 1 hour

Essence of the “Pharmaceutical care” concept

1. The pharmacist and the process of drug use

Practical class № 2 – 1 hour

Pharmaceutical care at self-medication with drugs over-the-counter.

1. Examples for patients with cough.
2. Examples for patients with pain.
3. Possible complications from drug therapy of elderly patients with non-steroid anti-inflammatory products.
4. Examples for patients with allergic rhinitis.
5. Information processing, evaluation of drug treatment, designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 3 – 1 hour

Strategies to improve patients’ consent. Types of patients. Factors affecting patients’ consent.

1. Factors affecting the consent of individuals belonging to each patients group.
2. Evaluating the consent extent by designing an interview and a questionnaire.

Practical class № 4 – 1 hour

Pharmaceutical care for diabetes patients.

1. Information processing, evaluation of drug treatment.
2. Designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 5 – 1 hour

Pharmaceutical care for patients with asthma

1. Information processing, evaluation of drug treatment.
2. Designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 6 – 1 hour

Pharmaceutical care for patients with hypertension.

1. Information processing, evaluation of drug treatment.
2. Designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 7 – 1 hour

Pharmaceutical care for patients with CVD

1. Information processing, evaluation of drug treatment.

2. Designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 8 – 1 hour

Pharmaceutical care for patients with osteoporosis.

1. Information processing, evaluation of drug treatment.
2. Designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 9 – 1 hour

Pharmaceutical care for patients with arthritis.

1. Information processing, evaluation of drug treatment.
2. Designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 10 – 1 hour

Pharmaceutical care for patients with depression.

1. Information processing, evaluation of drug treatment.
2. Designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 11 – 1 hour

Pharmaceutical care for oncology patients.

1. Information processing, evaluation of drug treatment.
2. Designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 12 – 1 hour

Pharmaceutical care for elderly patients

1. Polypharmacy of elderly patients – practical solutions.
2. Information processing, evaluation of drug treatment.
3. Designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 13 – 1 hour

Colloquium on topics 1-12

Practical class № 14 – 1 hour

Pharmaceutical care for children.

1. Information processing, evaluation of drug treatment.
2. Designing a plan for pharmaceutical care, monitoring and control of the therapy, advising the patients.

Practical class № 15 – 1 hour

Practical cases for the studied patients' groups.

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COMPENDIUM IN PHARMACEUTICAL CARE

1. Essence of the "Pharmaceutical care" concept. The pharmacist and the process of drug use – main steps in pharmaceutical care implementation. Drug-related issues
2. Integration of pharmaceutical care with pharmacy practice. Ways to change the process of drug use. Financing and marketing of pharmaceutical care
3. Compliance and non-compliance essence. Strategies improving patients' consent. Types of patients. Factors affecting patients' consent.
4. Communication (intercourse) in the context of patients' care. Hearing and compassionate reply. Major principles and elements of interpersonal relationships. Asserting the rights. Theoretical grounds.
5. Non-verbal communication at the pharmacy.
6. Communication in special cases. Intercourse with elderly patients. Psychosocial factors.
7. Ethical care for the patients. Informed consent. Confidentiality. Ways to build-up better patient's understanding.
8. Perception (adoption) and communication. Barriers in the pharmacist-patient intercourse.

9. Interviewing and evaluation. Components of the effective interview: listening, probing, silence.
10. Pharmaceutical care at self-medication with drugs over-the-counter. Information processing, evaluation of the drug therapy, designing a plan for pharmaceutical care, treatment monitoring and control, advising the patients.
11. Pharmaceutical care for diabetes patients. Information processing, evaluation of the drug therapy, designing a plan for pharmaceutical care, treatment monitoring and control, advising the patients.
12. Pharmaceutical care for asthma and COPD patients. Information processing, evaluation of the drug therapy, designing a plan for pharmaceutical care, treatment monitoring and control, advising the patients.
13. Pharmaceutical care for hypertension patients. Information processing, evaluation of the drug therapy, designing a plan for pharmaceutical care, treatment monitoring and control, advising the patients.
14. Pharmaceutical care for CVD patients. Information processing, evaluation of the drug therapy, designing a plan for pharmaceutical care, treatment monitoring and control, advising the patients.
15. Pharmaceutical care for osteoporosis patients. Information processing, evaluation of the drug therapy, designing a plan for pharmaceutical care, treatment monitoring and control, advising the patients.
16. Pharmaceutical care for patients with arthritis. Information processing, evaluation of the drug therapy, designing a plan for pharmaceutical care, treatment monitoring and control, advising the patients.
17. Pharmaceutical care for patients with depression. Information processing, evaluation of the drug therapy, designing a plan for pharmaceutical care, treatment monitoring and control, advising the patients.
18. Pharmaceutical care for oncology patients. Information processing, evaluation of the drug therapy, designing a plan for pharmaceutical care, treatment monitoring and control, advising the patients.
19. Pharmaceutical care for elderly patients. Polypharmacy. Information processing, evaluation of the drug therapy, designing a plan for pharmaceutical care, treatment monitoring and control, advising the patients.
20. Pharmaceutical care for children.