

MINISTRY OF HEALTH OF UKRAINE
KHARKIV NATIONAL MEDICAL UNIVERSITY
Department of Clinical Pharmacology and Internal Medicine
Academic year 2021-2022

**SYLLABUS OF EDUCATIONAL COURSE
«ACTUAL PROBLEMS OF CARDIOLOGY»**

Elective component

Form of education: full-time, distance, mixed

Branch of knowledge 22 " Health Protection "

Speciality 222 «Medicine»

Educational program for education of specialists of the second (master's)
level of higher education course

Course of education- 6

Syllabus of the academic discipline was
approved at the meeting of the Department of
Clinical Pharmacology and Internal Medicine

Approved by the KhNMU Methodological
Commission on the therapeutic disciplines

Protocol from
"27" August 2021 No. 1

Protocol from
"31" August 2021 No. 1

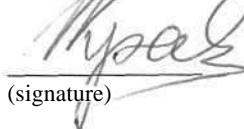
The head of the Department of Clinical
Pharmacology and Internal Medicine



(signature)

prof. Knyazkova I.I.
(surname)

The head of the Methodological Committee of
the Kh&dVIU on thf therapeutic disciplines



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2. Dunaieva Inna Pavlivna- Associate Professor of the department, Candidate of medical science, responsible from the educational process.
3. Molodan Dmytro Volodyimirovich- Candidate of medical science. Teacher

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Consultations	According to the schedule of the educational department

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Full-time consultations schedule and place according to the schedule of the department.

On-line consultations, schedule and place by prior arrangement with the teacher

Location: classes are held on the base of the polyclinic **Government Institution "L.T. Malaya Therapy National Institute of the National Academy of Medical Sciences of Ukraine"** (GI "L.T.Malaya NIT NAMSU") (Lyubov Malaya Avenue, 2A, Kharkiv, Kharkiv region, 61039)

INTRODUCTION

The syllabus of the discipline "Actual problems of cardiology " is compiled in accordance with the educational-professional program (hereinafter - EPP) 222 "Medicine" and the Standard of Higher Education of Ukraine (hereinafter - the Standard), the second (master's) level, field of knowledge 22 "Health Protection".

The program of the course determines the prerequisites for access to learning, orientation and the main focus of the program, the amount of ECTS credits required to obtain an educational master's degree, a list of general and special (professional) competencies, the normative and variable content of specialist training, formulated in terms of learning outcomes and control requirements quality of higher education.

The department accepts qualified students of any race, national or ethnic origin, gender, age, persons with special needs, any religion, sexual orientation, gender identity, veteran status or marital status for all rights, privileges, programs and activities provided to university students.

Description of the discipline (abstract).

The discipline "Actual questions of cardiology" for 6th year students involves students studying the basics of the latest data on the epidemiology of cardiovascular disease, their etiology and pathogenesis with an emphasis on skills of history taking, physical examination, differential diagnosis, analysis and treatment of modern methods based on the results of international multicenter research and the principles of evidence-based medicine. Considerable attention is paid to the prophylactic aspects of cardiology, modern data of clinical pharmacology used in the treatment of diseases of the cardiovascular system.

Discipline status: the main format of the discipline is mixed - the course, which is supported in the Moodle system, teaching the course, provides for a combination of traditional forms of classroom studying with elements of distance studying, which uses available information interactive technologies (ZOOM, Moodle, Google Meet, Google Teams), resident and correspondence counseling.

The subject of the course is the best choice of cardiovascular podiatry from the side of the choice of rational pharmacotherapy

Results of the education.

The course contains the main aspects of training a future doctor by "Medicine" specialty.

According to the educational program for the academic course " Actual questions of cardiology ", an applicant for higher education will acquire theoretical knowledge, methodological education, practical skills in the following areas:

- ability to effectively use knowledge of etiology, pathogenesis, clinical picture, features of the course and possible complications, modern methods of clinical, laboratory, instrumental examination of patients and methods of treatment and indications for their use in major diseases cardiovascular system;
- ability to independently acquire new knowledge and update and integrate the acquired knowledge in major diseases of the cardiovascular system;

- ability to assess the role of new approaches to the diagnosis and treatment of major diseases of cardiovascular system.

Interdiscipline relationships.

Studying the discipline "Actual problems of cardiology " is carried out in the 1-2 terms of the 3-d year of study and is based on knowledge of the basic natural science and clinical disciplines: medical biology, human anatomy, histology, cytology and embryology with peculiarities of childhood, Latin language, history of medicine, foreign language with a professional orientation, philosophy, pharmacology, normal physiology, pathological physiology, propedeutics of medicine, and integrates with these disciplines. The program of the academic discipline " Actual questions of cardiology" consists of one section.

Prerequisites of the discipline "Actual questions of cardiology": human anatomy, medical and biological physics, pathomorphology, pathophysiology, pharmacology, internal medicine, propaedeutics of medicine.

Co-requisites of the discipline "Actual questions of cardiology": surgery, in particular cardiac surgery (treatment of acute myocardial infarction, pericarditis, cardiomyopathy, etc.), obstetrics (management of pregnant women with hypertension, cardiomyopathy of pregnant women), ophthalmology, dermatology (diagnosis), social medicine.

Link from the page of educational course in Moodle:

<http://distance.knmu.edu.ua/course/view.php?id=4040>

1. The purpose and objectives of the discipline.

1.1 The aim of studying the discipline Cardiology is one of the basic disciplines in the training of physicians of all specialties, as cardiovascular disease is the most important problem of mankind due to the high prevalence and disability and mortality of patients. Cardiology studies the features of pathogenesis and patterns of development of the clinical course of diseases of the cardiovascular system using a comprehensive interdisciplinary approach to their treatment, rehabilitation processes after severe vascular accidents, as well as the main measures for their prevention. "Actual questions of cardiology" for 6th year students is to provide future professionals with scientifically sound knowledge of the basics of cardiology and the necessary practical skills in the qualification of Master of Medicine, doctor.

1.2. The main tasks of studying the discipline

- training of the student with formation of skills of the decision of professional tasks according to kinds of professional activity (preventive, diagnostic, medical, rehabilitation);
- formation of students' communication skills with the patient, conducting a full range of diagnostic and therapeutic measures in accordance with the clinical protocols of patients with major diseases of the cardiovascular system at the hospital and outpatient stages;

- development of students' skills of questioning and clinical examination of patients with pathology of the cardiovascular system, interpretation of the results of routine and special laboratory and instrumental methods of examination of organs and systems;
- formation in students of skills of statement, substantiation and formulation of the diagnosis, drawing up of the plan of inspection of patients, definition of tactics of their conducting;
- formation of students' skills to carry out prevention, treatment and rehabilitation of patients with pathology of the cardiovascular system, to prescribe and directly carry out treatment of patients in hospital and outpatient settings;
- formation of skills of registration of medical history and ambulatory card with the statement in them of all basic sections, substantiation of the clinical diagnosis, the plan of inspection and treatment, definition of working capacity and indications for hospitalization, keeping diaries and registration of stage epicrisis at work with therapeutic patients.

1.3 The study of the discipline provides the acquisition of competencies

1.3.1 Integral competencies.

The ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care, or in the learning process, involves research and(or) implementation of innovations and is characterized by the complexity and uncertainty of conditions and requirements. The ability of an individual to organize an integral humanitarian educational space, to form a single image of culture or a holistic picture of the world.

General competences (GC)

GC1 – Capacity for abstract thinking, analysis and synthesis; ability to study and be modernly trained

GC2 – Capacity for using knowledge in practical situations

GC3 – Knowledge and understanding of the subject field and understanding of the professional activity

GC4 – Capacity for adapting and acting in a new situation

GC5 – Capacities for making sound judgements and for working in a team; skills of interpersonal interaction

GC6 – Capacity for communicating in the state language both in the oral and written forms; Capacity for communicating in a foreign language

GC7 – Skills of using informative and communicative technologies

GC8 – Certitude and persistence concerning set tasks and assumed responsibilities

GC9 – Capacity for acting in the socially responsible and conscious way

Professional competences (PC)

PC1 – Skills of questioning

PC2 – Capacity for determining the required list of laboratory and instrumental methods of examination and assessing their results

PC3 – Capacity for making and initial and clinical diagnosis of the disease PC4 –

Capacity for determining the required mode of work and rest and the character of diet in treatment of diseases

PC5 – Capacity for determining the principles and character of treatment of diseases

PC6 – Capacity for diagnosing medical emergencies

PC7 – Capacity for determining the tactics and mastering of skills of providing emergency medical aid

PC9 – Skills for carrying out medical manipulations

PC12 – Capacity for determining the tactics in management of persons subject to regular medical check-ups

PC13 – Capacity for carrying out expert examination of labour capacity

PC14 – Capacity for keeping medical documents

Programme results of training (PRT)

PRT 1 – to have general and special fundamental and profession-oriented knowledge, abilities, skills and competences required for carrying out typical professional tasks, which are associated with activity in the medical field in a particular position

PRT 2 – to have knowledge about psychophysiological peculiarities of human, human health, health support, prophylaxis of diseases, treatment of human, health of population

PRT 3 – to apply the acquired knowledge, skills and understanding for performing typical tasks in the doctor's activity, whose sphere of use is determined by lists of syndromes, signs and symptoms, diseases, medical emergencies, laboratory and instrumental methods of examination, medical manipulations

PRT 4 – to collect information about the patient

PRT 5 – to evaluate results of questioning, physical examination, data of laboratory and instrumental methods of examination

PRT 6 – to establish of an initial clinical diagnosis of a disease

PRT 7 – to determine the character and principles of treatment of diseases

PRT 8 – to determine the required diet, mode of work and rest in treating diseases

PRT 9 – to determine the tactics for managing the persons subject for regular medical check-ups

PRT 10 – to diagnose medical emergencies, determine tactics for provision of emergency medical aid

PRT 17 – be able to keep medical documents and processing state, social and medical information

PRT 18 –to assess the state of human health and provide its support with consideration of effects of the environment and other determinants of health

PRT 20 – to apply the acquired knowledge about the current system of health care for optimization of one's own professional activity and participation in performing practical tasks in the field

PRT 21 – to adhere to the ethical code of the doctor, which ensures the formation

of a specialist with appropriate personal qualities.

1.3.3 The study of the discipline provides students with the following social skills (soft skills)

Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained. Ability to apply knowledge in practical situations. Knowledge and understanding of the subject area and understanding of professional activity. Ability to adapt and act in a new situation. Ability to make an informed decision; work in a team; interpersonal skills. Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language. Skills in the use of information and communication technologies. Definiteness and persistence in terms of tasks and responsibilities. Ability to act socially responsibly and consciously.

2. Information volume of the discipline.

Name of indices	Branch of knowledge, direction of training, educational-qualification level	Characteristics of the course	
		Day tuition	
Number of credits – 4	Direction of training 22 «Health Protection»	Elective	
Total number of hours - 120	Specialty 222 «Medicine»	Year of study:	
		VI-th	
		Term	
		XI-th	XII-th
Number of hours for day tuition: Practical classes – 20, Independent work - 100	Educational-qualification level: «second (master’s) level»	Lectures	
		0 hours	
		Practical classes	
		20 hours	
		Independent work and individual work	
100 hours		Type of control: credit.	

2.2.1 Lectures- not provided by the program.

2.2.2 Seminars- not provided by the program.

2.2.3 Practical classes

№	The topic practical lesson	Hours	Education methods	Methods of control
1.	Topic 1. Secondary arterial hypertension, resistant and malignant hypertension:	2	story-explanation, conversation,	oral examination (individual

	<p>diagnosis and treatment.</p> <p>Topic 2. Standard diagnostic procedures and clinical management of patients with comorbid pathology: coronary artery disease and diabetes</p>	3	<p>illustration, demonstration, presentation, videos, educational video films discussion</p>	<p>and frontal); written survey; test control; creative tasks</p>
2.	<p>Topic 3. Indications and clinical effectiveness of different methods of myocardial revascularization. Primary and secondary prevention of coronary artery disease and its impact on prognosis.</p> <p>Topic 4. Diagnosis and treatment of mitral valve insufficiency of various etiologies</p>	3 2	<p>story-explanation, conversation, illustration, demonstration, presentation, videos, educational video films discussion</p>	<p>oral examination (individual and frontal); written survey; test control; creative tasks</p>
3.	<p>Topic 5. Clinical management of patients with atrial fibrillation. Clinical management of patients with atrioventricular block.</p> <p>Topic 6. Chronic heart failure with systolic dysfunction of left ventricular and with preserved left ventricular systolic function: diagnosis, differential diagnosis and treatment.</p>	3 2	<p>story-explanation, conversation, illustration, demonstration, presentation, videos, educational video films discussion</p>	<p>oral examination (individual and frontal); written survey; test control; creative tasks</p>
4.	<p>Topic 7. The main principles of antiplatelet and anticoagulant therapy in patient with different cardiovascular system pathology.</p> <p>Final class. Credit.</p>	3 2	<p>story-explanation, conversation, illustration, demonstration, presentation, videos, educational video films discussion</p>	<p>oral examination (individual and frontal); written survey; test control; creative tasks</p>
		20		

2.2.4 Labs- not provided by the program.

2.2.5 Independent work of students:

№	The topic independent work of students	Hours	Education methods	Methods of control
1.	Resistant hypertension: diagnosis and treatment	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
2.	Malignant hypertension: diagnosis and treatment	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
3.	Standard diagnostic procedures and clinical management of patients with comorbid pathology: coronary artery disease and diabetes	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
4.	Indications and clinical effectiveness of different methods of myocardial revascularization.	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
5.	Primary medicamentous and non-medicamentous prevention of coronary artery disease	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
6.	Primary and secondary non-medicamentous prevention of coronary artery disease and its impact on prognosis	5	Independent work with literature and Internet	oral examination (individual and frontal); written survey; test control;

			resources	creative tasks in the current control in practical classes
7.	Diagnosis and treatment of mitral valve insufficiency of various etiologies	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
8.	Diagnosis and treatment of mitral valve disease of various etiologies	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
9.	Clinical management of patients with atrial fibrillation	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
10.	Clinical management of patients with atrioventricular block	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
11.	Acute heart failure: diagnosis and treatment	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
12.	Heart failure with preserved left ventricular systolic function: diagnosis, differential diagnosis and treatment	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the

				current control in practical classes
13.	Non-medicament treatment of patients with systolic heart failure, which improve prognosis.	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
14.	The main principles of antiplatelet and anticoagulant therapy in patient with different cardiovascular system pathology.	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
15.	Prevention of diseases of the cardiovascular system	5	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
16.	Presentation of reports on practical classes. Presentation of reports on clinical and scientific student conferences. Presentation of case history of selected patient during practical classes.	25	Independent work with literature and Internet resources	oral examination (individual and frontal); written survey; test control; creative tasks in the current control in practical classes
Total		100		

Topics for individual work:

Topics for reports:

1. Modern methods of diagnosis of coronary heart disease, ultrasound techniques
2. Modern methods of coronary heart disease diagnosis, radiation techniques
3. Risk factors for sudden coronary death, diagnosis of predictors of sudden death.
4. New ischemic syndromes: diagnosis and treatment.
5. Laboratory methods for the diagnosis of ischemic myocardial damage
6. Instrumental methods for diagnosing ischemic myocardial damage.
7. Complications of myocardial infarction
8. Surgical methods of treatment of myocardial infarction
9. Features of arterial hypertension in elderly patients.

10. Hypertension in pregnant women.
11. Treatment of non-alcoholic fatty liver disease on the background of hypertension.
12. Treatment of chronic heart failure in patients with chronic obstructive pulmonary disease.

3. Assessment Policy

3.1 Current training activity.

Evaluation of the success of education of students is carried out on the basis of the current "Instructions for evaluating the educational activities of students of KNMU"

Teachers shall ensure that each master receives the necessary competences in the areas covered by the practical classes. Mastering the topic (current control) is controlled by practical lessons according to specific goals, tests, solution of situational tasks, control of the acquisition of practical skills.

When assessing the mastering of each discipline subject (current training activity - CTA) and the final session (software), the master is awarded an assessment according to the traditional 4-point system: "excellent", "good", "satisfactory" and "unsatisfactory".

Score from discipline. The final lesson (FL) is conducted according to the program of the discipline during the semester on a schedule, during the classes. Assessment of the discipline is given to the master at the last (final) class. The total score for the CTA and the final lesson (FL) is defined as the arithmetic mean of the traditional scores for each lesson and the software, rounded to 2 decimal places (to the nearest hundredths), which are converted into points according to the "Instructions for Assessment of Master Learning Activities" "Using Table or the average score (up to one hundredth) and its conversion to ECTS points is automatically obtained by the teacher through from the Electronic journal. The minimum number of points that a master must earn for his / her current activity while studying the discipline is 120 points, and the maximum number of points is 200 points.

The maximum number of points that a master can gain in studying the discipline is - 200, the minimum is 120 points. The type of final control is credit.

After completing the teaching of the discipline the master gets a credit.

Assessment of masters' independent work. Independent work of masters, which is provided by the topic of the lesson along with the classroom work, is assessed during the ongoing control of the topic at the relevant lesson.

3.2. Questions for credit

- Essential hypertension. Neurocirculatory dystonia. Definition. The role of disorders of central and renal mechanisms of regulation of blood pressure, endothelial function and other factors. Classification. Clinical manifestations and data of additional research methods. Defeat of target organs. Differential diagnosis. Risk stratification. Complication. Non-drug and drug treatment. Complicated and

uncomplicated hypertensive crises, features of treatment tactics. Primary and secondary prevention. Forecast and efficiency

- Neurocirculatory dystonia. Definition. Etiology and pathogenesis. Classification. Features of clinical syndromes. Criteria for diagnosis. Differential diagnosis. Differentiated therapy. Primary and secondary prevention. Forecast and efficiency.
- Secondary (symptomatic) hypertension. Definition. The main reasons. Features of the clinic, diagnosis of renal (renovascular, renoparenchymal), endocrine (Itsenko-Cushing's syndrome and disease, pheochromocytoma, Conn's syndrome, diffuse toxic goiter) and hemodynamic (isolated systolic hypertension, aortic coarctation). Hypertension during pregnancy. The value of laboratory and instrumental methods for differential diagnosis and diagnosis verification. Treatment, including surgical treatment. Primary and secondary prevention. Forecast and efficiency.
- Atherosclerosis. Definition. The role of hyperlipidemia, general and local inflammation, vascular wall damage and platelets in the development of atherosclerosis. Risk factors. Features of clinical manifestations depending on the predominant localization (aorta, coronary, mesenteric and renal arteries, arteries of the lower extremities). The value of laboratory, radiation and other instrumental research methods. Differential diagnosis. Complication. Principles of treatment. Therapeutic tactics for different variants of the course. Primary and secondary prevention. Forecast and efficiency.
- Chronic coronary syndrome (coronary heart disease). Definition of HCS. Etiology. Classification of HCS. Features of the clinical course and diagnosis of different variants of stable angina. Painless coronary heart disease, postinfarction and diffuse atherosclerosis. Features of clinical manifestations. Criteria for diagnosis. Differentiated therapy of different forms of coronary heart disease. Prognosis-modifying therapy. Primary and secondary prevention. Forecast and efficiency.
- Acute coronary syndrome (unstable angina and acute myocardial infarction). Definition. Classification. Features of the clinical course and diagnosis of acute myocardial infarction. Criteria for diagnosis. Complications of acute myocardial infarction (acute left ventricular failure, cardiac arrhythmia and conduction, myocardial rupture, acute cardiac aneurysm, post-infarction Dressler's syndrome, etc.). Diagnosis. Therapeutic tactics in different periods of acute myocardial infarction. Prognosis-modifying therapy. Indications for surgical treatment. Rehabilitation. Primary and secondary prevention. Forecast and efficiency.
- Pulmonary artery thromboembolism (PE). Definition of PE. Risk factors. Classification. Pathogenesis of hemodynamic disorders. Clinical course. Diagnosis criteria, differential diagnosis. Diagnostic significance of changes in laboratory and instrumental research methods. Therapeutic tactics. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.
- Pulmonary heart. Determination of pulmonary heart. Etiology, pathogenesis. Classification. Clinical manifestations, changes in the data of additional research methods depending on the etiological factor. Differential diagnosis. Principles of

differentiated treatment. Primary and secondary prevention. Forecast and efficiency.

- Congenital heart disease in adults. Definition. Atrial and interventricular septal defect, open ductus arteriosus, aortic coarctation. Mechanisms of hemodynamic disorders, significance of pulmonary hypertension. The value of non-invasive and invasive methods for diagnosis and differential diagnosis. Complication. Eisenmenger syndrome. Treatment. Indications for surgical treatment. Prevention of complications. Forecast and efficiency.
- Infectious endocarditis. Definition. Etiology, pathogenesis. Clinical picture. Features of the course depending on the pathogen. Diagnostic criteria. The value of laboratory methods and echocardiographic examination in diagnosis. Differential diagnosis. Complications (heart failure, emboli, abscesses, etc.). Treatment. Modes of antibacterial therapy. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.
- Acquired heart defects. Definition. Defects of mitral, aortic, tricuspid valves. Etiology, mechanisms of hemodynamic disorders. Classification. Combined mitral and aortic defects. Clinical manifestations. The value of non-invasive and invasive research methods. Differential diagnosis. Complication. Treatment. Indications for surgical treatment. Primary and secondary prevention. Forecast and efficiency.
- Myocarditis and cardiomyopathy. Definition. Classification. Etiology and pathogenesis of the main types of cardiomyopathies (inflammatory, metabolic, idiopathic, etc.). Clinical manifestations. The value of laboratory and instrumental research methods in diagnosis. Diagnostic criteria and differential diagnosis. Complication. Features of treatment of different types of cardiomyopathies. Primary and secondary prevention. Forecast and efficiency.
- Pericarditis. Definition. Etiology and pathogenesis. Classification. Features of the clinic, course and diagnosis of different variants of pericarditis. Methods of diagnosis verification. Differential diagnosis. Cardiac tamponade. Indications for pericardial puncture, its diagnostic and therapeutic value. Differentiated therapy of different forms taking into account etiological factors. Primary and secondary prevention. Forecast and efficiency.
- Abnormal heart rhythm. Definition. Etiology. Classification. Electrophysiological mechanisms of arrhythmias (extrasystole, atrial fibrillation and flutter, supraventricular and ventricular tachycardia, ventricular fibrillation). Clinic, ECG diagnostics and differential diagnosis. Complication. Drug and non-drug methods of treatment. The role of electropulse therapy. Immediate therapy for paroxysmal arrhythmias and sudden cardiac death. Primary and secondary prevention. Forecast and efficiency.
- Impaired conduction of the heart. Definition. Etiology. Classification. Clinic and ECG diagnosis of atrioventricular block and blockade of the legs of the His bundle. Tactics for acute and chronic conduction disorders. Emergency care for the Morgan-Edams-Stokes attack. Indications and principles of electrocardiography

(temporary, permanent). Primary and secondary prevention. Forecast and efficiency.

3.3. Control questions

Consists in methodical recommendations from each lesson.

3.4. Individual tasks

Preparation for a practical lesson. Writing essays, preparing presentations on a particular topic.

Assessment of individual tasks of the masters is carried out under the conditions of the teacher's tasks (report of a lecture at a practical lesson, a report with a presentation at a practical lesson, a report at scientific and practical conferences of the department, university, writing abstracts, articles, participation in the All-Ukrainian Olympiad). Points (no more than 10) are added as an incentive extra point to the final grade for the current learning activity. The total amount of points for the current educational activity may not exceed 200 points.

Recalculation of the average for current activity in a multi-scale scale
(for disciplines ending with a score)

4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-point scale
5	200	4.22-4,23	169	3.45-3,46	138
4.97-4,99	199	4.19-4,21	168	3.42-3,44	137
4.95-4,96	198	4.17-4,18	167	3.4-3,41	136
4.92-4,94	197	4.14-4,16	166	3.37-3,39	135
4.9-4,91	196	4.12-4,13	165	3.35-3,36	134
4.87-4,89	195	4.09-4,11	164	3.32-3,34	133
4.85-4,86	194	4.07-4,08	163	3.3-3,31	132
4.82-4,84	193	4.04-4,06	162	3.27-3,29	131
4.8-4,81	192	4.02-4,03	161	3.25-3,26	130
4.77-4,79	191	3.99-4,01	160	3.22-3,24	129
4.75-4,76	190	3.97-3,98	159	3.2-3,21	128
4.72-4,74	189	3.94-3,96	158	3.17-3,19	127
4.7-4,71	188	3.92-3,93	157	3.15-3,16	126
4.67-4,69	187	3.89-3,91	156	3.12-3,14	125
4.65-4,66	186	3.87-3,88	155	3.1-3,11	124
4.62-4,64	185	3.84-3,86	154	3.07-3,09	123
4.6-4,61	184	3.82-3,83	153	3.05-3,06	122
4.57-4,59	183	3.79-3,81	152	3.02-3,04	121
4.54-4,56	182	3.77-3,78	151	3-3,01	120
4.52-4,53	181	3.74-3,76	150	Less 3	Not enough
4.5-4,51	180	3.72-3,73	149		
4.47-4,49	179	3.7-3,71	148		
4.45-4,46	178	3.67-3,69	147		
4.42-4,44	177	3.65-3,66	146		

4.4-4,41	176	3.62-3,64	145
4.37-4,39	175	3.6-3,61	144
4.35-4,36	174	3.57-3,59	143
4.32-4,34	173	3.55-3,56	142
4.3-4,31	172	3.52-3,54	141
4,27-4,29	171	3.5-3,51	140
4.24-4,26	170	3.47-3,49	139

**Correspondence of discipline
assessment in points assessment in
ECTS and traditional assessment**

Assessment of discipline in points	Assessment on the ECTS scale	Traditional assessment from the discipline
180–200	A	5
160–179	B	4
150–159	C	4
130–149	D	3
120–129	E	3
Less 120	F, FX	2

3.6. Rules for appealing the assessment

According to the provision on the appeal of the results of the final control of students of KhNMU

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_apel.pdf

4. Course politics.

Academic expectations of students and female students. Course requirements.

Students and female students are expected to attend all practical classes. If they missed classes, it is necessary to complete it (according to the schedule at the information stand of the department).

Written and homework assignments must be completed in full and on time, if students have questions, they can contact the teacher personally.

In order to achieve the learning goals and successfully complete the course, it is necessary: from the first day to join the work; read the material beforehand before considering it in a practical session; not to be late or miss classes; to come to the department dressed in a medical gown, to have replaceable shoes, to have a phonendoscope, a notebook, a pen; complete all necessary tasks and work daily; be able to work with a partner or as part of a group; seek help and receive it when you need it.

Practical classes

Active participation in the discussion in the classroom, students should be ready to understand in detail the material, ask questions, express their point of view, discuss. During the discussion, the following are important:

- respect for colleagues,

- tolerance towards others and their experiences,
- sensitivity and impartiality,
- the ability to disagree with opinions, but respect the personality of the opponent,
- careful argumentation of your opinion and the courage to change your position under the influence of evidence,
- “I am” a statement when a person avoids unnecessary dressing up, describes his feelings and formulates his wishes based on his own thoughts and emotions,
- compulsory acquaintance with primary sources.

Creative approach in its various forms is encouraged. Students are expected to be interested in participating local, all-Ukrainian and international conferences, competitions and other events with a subject profile.

Students can discuss various tasks, but their implementation is strictly individual. Cheating, using various software tools, prompts, using a mobile phone, tablet or other electronic gadgets during the class for purposes not related to the educational process are not allowed. Students are not allowed to be late for practical classes.

Visiting patients during supervision in the hospital is possible, provided that students have the appropriate uniform.

Students with special needs can meet with the teacher or warn him before the start of classes, at the request of the student this can be done by the head of the group. If you have any questions, please contact the teacher.

Students are encouraged to participate in scientific research and conferences on this topic.

All students of KNMU are protected by the Regulation on the Prevention, Prevention and Management of Cases of Sexual Harassment and Discrimination at Kharkiv National Medical University, designed to determine an effective mechanism for resolving conflict situations related to discrimination and sexual harassment. This Regulation was developed on the basis of such regulatory legal acts of Ukraine: the Constitution of Ukraine; Law of Ukraine "On Education"; Law of Ukraine "On Higher Education"; Law of Ukraine "On the principles of preventing and combating discrimination in Ukraine"; Law of Ukraine "On ensuring equal rights and opportunities for women and men"; Convention for the Protection of Human Rights and Fundamental Freedoms; The Convention against Discrimination in Education; The Convention on the Elimination of All Forms of Discrimination against Women; General Recommendation No. 25 to article 4, paragraph 1, of the Convention on the Elimination of All Forms of Discrimination against Women; General Comment No. 16 (2005) “Exactly for men and women the right to enjoy economic, social and cultural rights” (Article 3 of the International Covenant on Economic, Social and Cultural Rights; UN Committee on Economic, Social and Cultural Rights) Recommendations on education in the spirit international understanding, cooperation and peace and education in the spirit of respect for human rights and fundamental freedoms (UNESCO) Concept of the State social program for ensuring equal rights and opportunities for women and

men for the period until 2021. Kharkiv National Medical University provides education and employment free from discrimination, sexual harassment, intimidation or exploitation. The university recognizes the importance of confidentiality. All persons responsible for the implementation of this policy (employees / -these dean's offices, faculties, institutes and the Center for Gender Education, members of the student government and ethics committee, vice-rector for scientific and pedagogical work) respect the confidentiality of persons who report or are accused of discrimination or sexual harassment (excluding situations where legislation requires the disclosure of information and / or when disclosure of circumstances by the University is necessary to protect the safety of others).

KNMU creates a space of equal opportunities, free from discrimination of any national, racial or ethnic origin, gender, age, disability, religion, sexual orientation, gender, or marital status. All rights, privileges, programs and activities that are granted to students / female students or university staff apply to all, without exception, subject to proper qualifications. The anti-discrimination policy and the policy of counteracting sexual harassment of KNMU is confirmed by the Code of Corporate Ethics and the Charter of KNMU.

Classroom Behavior (Basic "yes" and "no")

It is important for students to follow the rules of proper conduct at the university. These rules are general for everyone, they also apply to the entire faculty and staff, and do not fundamentally differ from generally accepted norms.

During classes it is not prohibited:

- to leave the audience for a short time if necessary and with the permission of the teacher;

- drink soft drinks;
- take pictures of presentation slides;
- actively participate in the lesson

Prohibited:

- to eat (except for persons whose special medical condition requires another - in this case, medical confirmation is required)
- to smoke, consume alcoholic and even low-alcohol drinks or drugs;
- to use obscene language or use words that offend the honor and dignity of colleagues and faculty;
- to play gambling;
- to damage the material and technical base of the university (damage inventory, equipment; furniture, walls, floors, litter premises and territories)
- to make noise, shout or listen to loud music in classrooms and even corridors during class.

Occupational Safety and Health

At the first class of the course, the basic principles of labor protection will be explained by conducting appropriate instructions. It is expected that each and every one should know where the emergency exit closest to the audience is, where the fire extinguisher is located, how to use it, and the like.

The procedure for informing about changes in the Syllabus: the necessary changes in the Syllabus are approved by the methodological commission of the KhNMU on the problems of professional education of the surgical profile and are published on the website of the KhNMU, the website of the Clinical pharmacology department of the KhNMU.

5. Academic integrity.

The Department of Clinical Pharmacology and Internal Medicine maintains zero tolerance for plagiarism.

This position grounded at the requirements of Regulations on Academic Integrity and Ethics of Academic Relations at Kharkiv National Medical University

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_ad_etyka_text.pdf

Regulations on the Commission on Academic Integrity, Ethics and Conflict Management of KhNMU

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/polog_komis_ad_text.pdf

ACADEMIC INTEGRITY:

http://www.knmu.kharkov.ua/index.php?option=com_content&view=article&id=2520%3A2015-04-30-08-10-46&catid=20%3A2011-05-17-09-30-17&Itemid=40&lang=uk

http://files.knmu.edu.ua:8181/upload/redakt/doc_uchproc/kodex_AD.docx

In the first lessons, informational events will be held on what exactly is considered plagiarism and how to correctly carry out an experimental scientific search.

6. Recommended literature

Basic

1. Goodman & Gilman's : the Pharmacological Basis of Therapeutics, 13e Author: Laurence L Brunton; Björn C Knollmann; Randa Hilal-Dandan Publisher: New York, N.Y. : McGraw-Hill Education LLC., 2018. Series: McGraw-Hill's AccessMedicine. ISBN 9781259584732 1259584739
2. CURRENT Diagnosis & Treatment: Cardiology, 5e Michael H. Crawford McGraw-Hill Education-2017-680p ISBN9781259641268
3. Cardiology: An Integrated Approach Adel Elmoselhi- McGraw-Hill Education-2018-320p ISBN10 007179154X , ISBN13 9780071791540
4. D Katzung & Trevor's Pharmacology Examination and Board Review, 12th Edition Bertram G. Katzung, Anthony J. Trevor, Marieke Knuidering-Hall McGraw-Hill Education, 5 сент. 2019 г. - pages 585 ISBN 126028848X, 9781260288483
5. Basic & Clinical Pharmacology 15th edition. — Katzung Bertram G., Vanderah Katzung Bertram G., Vanderah Todd W.- McGraw-Hill Education, 2021. — 1761 p. — ISBN 978-1260452310..
6. Compendium 2021 - drugs / under. ed. V.N. Kovalenko. - К .: МОПІОН, 2021. - 2566 с. - ISBN 978-966-2066-71-5.

7. Clinical pharmacology. Textbook for students of medical universities, interns, general practitioners, family medicine / O.M. Bilovol, L.R. Bobronnikov, and others. - H. : Planeta-Print LLC, 2017. - 336 p.
8. Basic Concepts in Pharmacology : What You Need to Know for Each Drug Class, 5e / Janet L. Stringer. Stringer, Janet L [ed.] - McGraw-Hill's AccessMedicine Publisher: New York, N.Y. : McGraw-Hill Education LLC., 2017 ISBN: 9781259861079 (printISBN); 1259861074 (print-ISBN)
9. ECG in practice = The ECG inPractice = ECG in practice: textbook. way. / John R. Hampton; lane. 6th English view. OI Romaskevich; Science. ed. translated by prof. N.M. Seredyuk, O.Z. Racer. - K.: ВСВ «Медицина», 2018. - 560 с. ISBN 978-617-505-713-1
10. Functional diagnostics: Textbook for interns and doctors - students of institutions (faculties) of postgraduate education of the Ministry of Health of Ukraine / ed. ОН. Жарінова, Ю.А. Ivaniva, VO The corner. - Kyiv: The Fourth Wave, 2018. - 736 p.

Auxiliary

1. Medical journals: "Doctor", "Art of Treatment", "World Medicine", "Medical Affairs", "Medicines of Ukraine", "Ukrainian Journal of Cardiology", "Ukrainian Therapeutic Journal", "Ukrainian Rheumatological Journal", "Ukrainian Medical Journal ", "ActaMedicaLeopoliensia ", "Science ", "Therapia ".
2. Cardiological Almanac - 2018. Evidence-based medicine and the implementation of its achievements in practice // Medicine review. - K., 2018. - 279
3. Inflammatory bowel diseases: Clinical guidance: Handbook for gastroenterologists, residents, students. honey. universities / ed. : Daniel J. Stein, Reza Shaker; lane. IL Caliph. - M. : GEOTAR – Media, 2018. - 256 p. : table. - Per.izd. : Inflammatory bowel disease / Daniel L.Stein, Reza Sharer, 2015
4. Kozak DV Therapeutic physical culture: a manual / DV Kozak, NO Davybida. - Ternopil: Ukrmedknyha, 2018. - 108 p.
5. Svintsitsky AS Diagnosis and treatment of rheumatic diseases. - Kyiv: Medknyha Publishing House, 2017. - 372 p.
6. Tutchenko MI, Rudyk DV, Slonetsky BI Diagnosis and treatment of portal hypertension syndrome. / Monograph. 2017. 148 p.

7.Internet resources.

1. <http://distance.knmu.edu.ua/course/view.php?id=4040> Link from the page of educational course in Moodle
2. https://books.google.com.ua/books?id=B3OSDwAAQBAJ&printsec=frontcover&dq=pharmacology+book&hl=ru&sa=X&redir_esc=y#v=onepage&q=pharmacology%20book&f=false - Essentials of Medical Pharmacology.
3. https://books.google.com.ua/books?id=YwijBQAAQBAJ&printsec=frontcover&dq=pharmacology+book&hl=ru&sa=X&redir_esc=y#v=onepage&q=pharmacology%20book&f=false - Introduction to Clinical Pharmacology - E-Book
4. https://books.google.com.ua/books?id=9XAZDwAAQBAJ&printsec=frontcover&dq=pharmacology+book&hl=ru&sa=X&redir_esc=y#v=onepage&q=pharmacology%20book&f=false - Pharmacology Flash Cards E-Book.

5. https://books.google.com.ua/books?id=Shv0DwAAQBAJ&printsec=frontcover&dq=cardiology&hl=ru&sa=X&redir_esc=y#v=onepage&q=cardiology&f=false -
6. https://books.google.com.ua/books?id=Shv0DwAAQBAJ&printsec=frontcover&dq=cardiology&hl=ru&sa=X&redir_esc=y#v=onepage&q=cardiology&f=false - Advanced Interventional Cardiology: Tips and Tricks Thach N. Nguyen, Shao Liang Chen, Moo-Hyun Kim, Duane S. Pinto, Cindy L. Grines, C. Michael Gibson, Ernest F. Talarico, Jr.
7. https://books.google.com.ua/books?id=6NXuDwAAQBAJ&printsec=frontcover&dq=cardiology&hl=ru&sa=X&redir_esc=y#v=onepage&q=cardiology&f=false Tandon's Textbook of Cardiology Dorairaj Prabhakaran, Raman Krishna Kumar, Nitish Naik
8. https://books.google.com.ua/books?id=Br_2DwAAQBAJ&printsec=frontcover&dq=cardiology&hl=ru&sa=X&redir_esc=y#v=onepage&q=cardiology&f=false Practical Cardiology: Evaluation and Treatment of Common Cardiovascular disorder
9. https://books.google.com.ua/books?id=6NXuDwAAQBAJ&printsec=frontcover&dq=cardiology&hl=ru&sa=X&redir_esc=y#v=onepage&q=cardiology&f=false Tandon's Textbook of Cardiology
10. https://books.google.com.ua/books?id=eypGwAEACAAJ&hl=ru&source=gbs_book_other_versions - Katzung & Trevor's Pharmacology: Examination & Board Review https://books.google.com.ua/books?id=fp8XvgAACAAJ&dq=pharmacology+book&hl=ru&sa=X&redir_esc=y - Goodman and Gilman's The Pharmacological Basis of Therapeutics, 13th Edition
11. https://books.google.com.ua/books?id=H-d1DwAAQBAJ&pg=PA588&dq=side+effects&hl=ru&sa=X&ved=2ahUKEwi0r8nrm8fzAhWh_7sIHQpNB7s4FBD0AXoECAQAg#v=onepage&q=side%20effects&f=false - Side Effects of Drugs Annual: A Worldwide Yearly Survey of New Data
12. https://books.google.com.ua/books?id=JDU5DwAAQBAJ&pg=PP2&dq=side+effects&hl=ru&sa=X&ved=2ahUKEwi0r8nrm8fzAhWh_7sIHQpNB7s4FBD0AXoECAUQAg#v=onepage&q=side%20effects&f=false - Side Effects.
13. <https://www.escardio.org/> web-site of European Society of Cardiology -a world leader in the discovery and dissemination of best practices in cardiovascular medicine.
14. <https://www.fda.gov/drugs/information-consumers-and-patients-drugs/finding-and-learning-about-side-effects-adverse-reactions> web-site FDA (Section devoted to monitoring and registration of side effects of drugs and medical procedures)
15. <http://libr.KhNMU.edu.ua/> the library of KhNMU
16. <http://repo.KhNMU.edu.ua> repository KhNMU
17. <https://accessmedicine.mhmedical.com/> - resources to support teachers and students on Distance Learning/ has the depth and breadth of content and functionality in place to serve as a cornerstone for online teaching and learning during this critical time.
18. Lectures for postgraduate education "Principles of Clinical Pharmacology" of the Clinical Center of the US National Institutes of Health. <http://www.cc.nih.gov/researchers/training/principles.shtml>.
19. Working group on pharmacotherapy of the European Society of Cardiology <https://www.escardio.org/>
20. Interregional Society of Evidence-Based Medicine: <http://www.osdm.org/index.php>
21. European Society of Clinical Pharmacologists and Pharmacotherapists: <http://www.eacpt.org>
22. Resource on pharmacogenetic. <http://www.pharmgkb.org/>
23. State Register of Medicines www.moz.gov.ua
24. Unified protocols of patient management www.moz.gov.ua

25. <http://www.osvita.org.ua> - Educational portal - all about education in Ukraine.
26. <http://nbuv.gov.ua> - site of the National Library of Ukraine named after VI Vernadsky.
27. <http://korolenko.kharkov.com> - site of Kharkiv State Scientific Library named after VG Korolenko.

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