

**Federal State Autonomous Educational Institution of Higher Education
"Peoples' Friendship University of Russia"**

Medical Institute

Recommended by ISSC

THE WORKING PROGRAM OF THE DISCIPLINE

Name of the discipline: Internal medicine

Recommended for the direction of training / specialty: 31.06.01 Clinical medicine

Focus of the program (profile): 14.01.04 Internal disease: heart failure

Qualification (degree) of the graduate: Researcher. Research teacher.

Form of study: full-time (3 years)

1. Goals and objectives of the discipline:

Discipline objectives:

- study of the etiology, pathogenesis, diagnosis and treatment of diseases of internal organs.

Discipline objectives:

- Study of the etiology and pathogenesis of diseases of internal organs: cardiovascular diseases, pathology of the respiratory, gastrointestinal tract, kidney disease, connective tissue and joints in all the variety of their manifestations and combinations.
- Mastering the basic methods of diagnostics and treatment of diseases of internal organs.
- Study of the mechanisms of action, efficacy and safety of drugs and non-drug methods of exposure.
- Mastering therapeutic measures and prevention of the onset or exacerbation of diseases of internal organs.

2. Place of discipline in the structure of EP:

The discipline "Internal medicine" refers to the variable part of Block 1, is a compulsory discipline, read in 1 and 2 semesters (4 WE, 144 hours).

In the process of mastering the discipline, the following universal competencies (UC) are formed:

- the ability to plan and solve problems of their own professional and personal development (UC-6).

In the process of mastering the discipline, the following general professional competencies (GPC) are formed:

- the ability and readiness to conduct applied scientific research in the field of biology and medicine (GPC-2);
- the ability and willingness to analyze, generalize and publicly present the results of completed scientific research (GPC-3);
- the ability and readiness to use the laboratory and instrumental base for obtaining scientific data (GPC-5);

In the process of mastering the discipline, the following professional competencies (PC) are formed:

- ability and readiness to analyze, generalize and publicly present the results of scientific research in the field of clinical medicine (PC-2);
- readiness to use laboratory and instrumental base for obtaining scientific data (PC-4);

Table 1 shows the previous and subsequent disciplines aimed at the formation of discipline competencies in accordance with the competence matrix of EP HE.

Table No. 1

Prior and subsequent disciplines aimed at the formation of competencies

P / p No.	Code and name of competence	Preceding disciplines	Subsequent disciplines (groups of disciplines)
General cultural competences			
1	UC-6	Pedagogics of higher education	Heart failure Lab and functional diagnostics Clinical pharmacology, Practice
General professional competencies			
2	GPC-2	Methodology of scientific research	Heart failure Lab and functional diagnostics Clinical pharmacology, Practice
3	GPC-3	Methodology of scientific research	Heart failure Lab and functional diagnostics Clinical pharmacology, Practice
4	GPC-5	-	Heart failure Lab and functional diagnostics

			Clinical pharmacology , Practice
Professional competence			
5	PC-2	Methodology of scientific research	Heart failure Lab and functional diagnostics Clinical pharmacology, Practice
6	PC-4	-	Heart failure Lab and functional diagnostics Clinical pharmacology, Practice

3. Requirements for the results of mastering the discipline:

As a result of studying the discipline, a graduate student must:

Know:

- definition of the concept of "health", its structure and content, patterns of formation of a healthy lifestyle; definition of the concept of "prevention", medical prevention ", "pre-illness "and" disease "; risk factors for common internal diseases;
- types of preventive measures; theoretical foundations of balanced nutrition;
- principles of preventive nutrition; principles of prevention of alcoholism, tobacco smoking, drug addiction and substance abuse; principles of individual and professional hygiene, including a set of measures for hygienic care in preparing a patient in the preoperative and postoperative periods.
- regularities of the body's functioning and mechanisms of ensuring health from the position of the theory of functional systems;
- the essence of methods for studying various human functions to assess the state of his health, the main regularities and the role of the causes, conditions and reactivity of the body in the occurrence of diseases;
- causes, mechanisms of development and manifestation, pathological processes underlying internal diseases;
- etiology, pathogenesis and pathomorphology, leading manifestations, outcomes of the most important inflammatory, destructive, immunopathological, tumor and other diseases;
- methodological foundations of medicinal and non-medicinal methods of prevention and treatment of common internal human diseases;
- the main provisions of legislative acts regulating the reform of management and financing of health care, the introduction of health insurance for citizens;
- fundamentals of legislation on health care, directive documents defining the activities of institutions and departments of health care of various forms of ownership;
- legal issues of the activities of doctors, middle and junior medical personnel in medical institutions;
- qualification requirements for a general practitioner, his rights and obligations, principles of organizing work in state, non-state medical institutions and insurance companies;
- fundamentals of clinical pharmacology, pharmacokinetics and principles of pharmacotherapy for the most common internal diseases;
- principles of diet therapy, psychotherapy, physiotherapy exercises and physiotherapy in the treatment of common internal diseases of adults;
- basics of resuscitation and intensive care, pathophysiology of the extinction of vital functions of the body, indications for resuscitation;
- medical, legal and social aspects of the issue of termination of resuscitation measures;
- organization of therapeutic assistance to the population;
- modern theories of the etiology and pathogenesis of inflammatory, dystrophic, dysplastic, neoplastic, internal diseases in adults, elderly and senile people;

- features of the modern manifestation of the clinic and the course of therapeutic diseases in adults, elderly and senile people;
- modern principles of therapy of internal diseases in adults, elderly and senile people.

Be able to:

- apply the principles of preventive medicine when carrying out health-improving and preventive measures;
- give recommendations on the correction of risk factors for internal diseases;
- provide emergency medical care in the amount of first medical aid at the prehospital stage in case of emergency and life-threatening conditions;
- evaluate and explain the basic laws of the formation and regulation of human physiological functions in the process of his life;
- evaluate and explain the age-related characteristics of the human body and its functional systems;
- navigate general issues of nosology, including etiology, pathogenesis and morphogenesis;
- to represent the role of pathological processes in the development of diseases of various etiology and pathogenesis;
- to use the theoretical foundations of medicinal and non-medicinal methods of prevention and treatment of common human diseases.
- to organize the treatment and diagnostic process and the implementation of preventive measures in the therapeutic departments of the polyclinic and hospital;
- to form a healthy lifestyle, to conduct an examination of the temporary and permanent disability of patients, to comply with the rules of medical ethics and medical deontology;
- to determine the indications and contraindications for the prescription of medicines in the amount of qualified or specialized therapeutic care for common internal diseases in adults;
- to determine the indications and contraindications for the use of physiotherapy exercises, a complex of rehabilitation measures in the treatment of common internal diseases in adults;
- to determine the indications and contraindications for the appointment of physiotherapeutic procedures in the treatment of common internal diseases in adults;
- determine the indications and contraindications for resuscitation;
- apply non-instrumental and instrumental methods of restoring airway patency and perform chest compressions.
- organize the prevention of internal diseases;
- to carry out early diagnosis by clinical symptoms and syndromes, differential diagnosis, to assess the severity of the patient's condition, to determine the indications for hospitalization;
- determine the scope and sequence of special diagnostic measures, evaluate their results;
- draw up and substantiate a plan of therapeutic measures, formulate indications and contraindications for surgical intervention in internal diseases;
- to assess the need for the participation of doctors of related specialties in the complex treatment of adults, elderly and senile people:
- organize medical examination, rehabilitation, examination of the working capacity of patients with internal diseases;
- carry out preventive, diagnostic and therapeutic measures for major internal diseases.
- provide emergency and routine therapeutic care within the framework of basic skills and abilities to patients with internal diseases;

Own:

- methods of providing first aid in case of emergency;
- fully general medical manipulations and the latest methods and technologies of additional examination, freely interpret their data
 - preventive, diagnostic and therapeutic measures in the amount of qualified or specialized care;
 - knowledge of the causes, mechanisms of development and manifestation of pathological processes underlying the most common internal diseases;
 - methodological foundations of medicinal and non-medicinal methods of treatment of common internal diseases;
 - knowledge of general issues of nosology, etiology, pathogenesis and morphogenesis;
 - knowledge of the main legislative acts governing reforms in the management and financing of health care, health insurance of citizens, including:
 - knowledge of the basics of healthcare legislation, directive documents defining the activities of institutions and healthcare units of various forms of ownership;
 - knowledge of the legal issues of the activities of doctors, middle and junior medical personnel in institutions of a therapeutic profile;
 - at an advanced level, carry out preventive, diagnostic and therapeutic measures for diseases of internal organs;
 - methods of treating complications arising in the process of treating inflammatory diseases of internal organs;
 - knowledge of the clinical manifestations of benign and malignant tumors of internal organs, modern and traditional methods of diagnosis, measures of their prevention, methods of treatment;
 - knowledge of the structure of therapeutic diseases in adults, know the etiology, pathogenesis, diagnosis of major diseases of internal organs;
 - methods of diagnostics of common cardio-neurological diseases, to carry out their differential diagnosis;
 - knowledge in the field of modern methods of radiation diagnostics, their features and capabilities, including: traditional radiography, radiopaque angiography, computed tomography, spiral computed tomography, magnetic resonance imaging, ultrasound diagnostics;
 - modern information technologies: navigate and act in the modern information field, know the technological capabilities of modern software;
 - use a personal computer to create a database of patients, regulatory documents and compilation of statistical reports.

4. Scope of discipline and types of educational work

The total workload of the course is 4 credit points.

No.	Type of study load	Total hours	Semesters	
			1	2
one.	Auditory lessons	80		
	Including:			
1.1	Lectures	40	20	20
1.2	Other occupations			
	<i>Including</i>			
1.2.1	Practical lessons (PZ)	40	20	20
1.2.2	Seminars (C)			

1.2.3	Laboratory exercises (LZ)			
	Of these, in an interactive form (IF)	4	2	2
2.	Independent work of graduate students (academic hours)	64	32	32
	<i>Including:</i>			
2.1	Course project (work)			
2.2	Calculation and graphic works			
2.3	abstract			
2.4	Preparation and passing of interim / final certification	24	15	9
	<i>Other types of independent work</i>			
3.	Total labor intensity (academic hours)	144	72	72
	Total labor intensity (credit units)	4	2	2

5. Content of the discipline

5.1 Content of discipline sections

No. p / p	The name of the discipline section	Section Contents
1	Respiratory diseases	<p>Pneumonia. Chronic obstructive pulmonary disease. Bronchial asthma. Asthmatic status. Urgent Care. Respiratory failure, acute and chronic, types, stages. Methods for studying the function of external respiration. Pulmonary heart. Pneumoconiosis (silicosis, silicatoses, beryllium, mixed). Lungs' cancer. Pleurisy is dry and exudative. Tumors of the pleura. Pneumothorax is spontaneous and traumatic. Pulmonary infarction. Pulmonary hemorrhage and hemoptysis. Urgent Care. Respiratory resuscitation methods. Diffuse lung diseases (sarcoidosis, alveolitis, eosinophilic pneumonia, Goodpasture syndrome).</p>
2	Diseases of the circulatory system	<p>Rheumatic heart disease. Acquired heart defects. Stenosis of the left atrioventricular foramen. Insufficiency of aortic valves. Aortic stenosis. Insufficiency of the valves of the pulmonary artery. Concomitant and combined defects. Features of hemodynamic disturbances in various heart defects. Infective endocarditis. Congenital heart defects. Atrial and ventricular septal defect. Non-clogging of the ductus arteriosus. Coarctation of the aorta. Fallot's triad and tetrad. Eisenmenger complex. Mitral valve prolapse syndrome. Diagnostic value of echo- and dopplerechocardiographic, X-ray, electrocardiographic studies. Probing of the heart and large vessels, angiography. Cardiomyopathy. Myocarditis. Myocardial dystrophy. Aortic aneurysms. Acute pericarditis is dry and exudative. Chronic constrictive pericarditis Hypertonic disease.</p>

		<p>Hypertensive crises.</p> <p>Coronary artery disease. Risk factors. Methods for detecting atherosclerosis.</p> <p>Angina pectoris, definition, classification, clinical and electrocardiographic diagnostics, tests with dosed exercise, daily monitoring of ECG and blood pressure, coronary angiography, treatment.</p> <p>Acute coronary syndrome. Acute myocardial infarction, clinical variants, stages, classifications.</p> <p>Complications of myocardial infarction. Cardiogenic shock. Acute left ventricular failure: cardiac asthma and pulmonary edema. Acute heart rhythm and conduction disturbances. Acute and chronic heart aneurysm. Partial thrombendocarditis. Thromboembolism. Myocardial rupture. Ventricular fibrillation. Dressler's Syndrome. Recurrent and repeated myocardial infarction.</p> <p>Treatment of myocardial infarction. Medical rehabilitation.</p> <p>Acute heart failure. Classifications. Treatment methods</p> <p>Chronic heart failure. Classifications. Treatment</p> <p>Heart rhythm and conduction disorders. Treatment</p> <p>Atrial fibrillation. Classification. Treatment</p> <p>Ventricular fibrillation. Drug therapy. Electrical defibrillation.</p> <p>Artificial pacemakers of the heart.</p>
3	Diseases of the digestive system	<p>Congenital malformations of the esophagus. Functional diseases of the esophagus, etiology and pathogenesis.</p> <p>Gastroesophageal reflux disease.</p> <p>Malignant and benign tumors of the esophagus.</p> <p>Methods for the study of the function and diagnosis of diseases of the stomach and duodenum.</p> <p>Functional disorders of the motor and secretory function of the stomach.</p> <p>Acute gastritis. Chronic gastritis. Classification, etiology and pathogenesis, clinical picture, treatment. Clinical aspects of pyloric helicobacteriosis. The value of EGD and biopsy of the mucous membrane of the stomach and duodenum.</p> <p>Peptic ulcer and duodenal ulcer, epidemiology, etiology, pathogenesis, classification, complications. Methods for diagnosing Helicobacter pylori infection and the effectiveness of eradication therapy. Post-gastro-resection disorders. Symptomatic stomach and duodenal ulcers.</p> <p>Benign and malignant tumors of the stomach.</p> <p>Methods for diagnosing diseases of the liver and biliary tract</p> <p>Abnormalities of the gallbladder. Functional disorders of the biliary tract.</p> <p>Acute and chronic cholecystitis. Cholelithiasis. Postcholecystectomy syndrome.</p> <p>Tumors of the biliary system, benign and malignant.</p> <p>Tumors of the gallbladder and bile ducts, large duodenal papilla.</p> <p>Acute and chronic hepatitis, epidemiology, etiology, classification, treatment</p> <p>Liver cirrhosis, epidemiology, etiology, classification, morphological changes, diagnosis of various forms of liver cirrhosis, disease outcomes, complications of liver cirrhosis,</p>

		<p>fulminant liver failure, hepatic coma, latent hepatic encephalopathy, portal hypertension. Principles of liver cirrhosis treatment</p> <p>Pigmented hepatosis (Gilbert's syndrome, Crigler-Nayyard syndrome, Dabin-Johnson and Rotor syndrome), porphyrias, hepatolenticular degeneration, Wilson-Konovalov's disease. Accumulation diseases, fatty hepatosis, hemochromatosis, hepatocerebral dystrophy, liver amyloidosis.</p> <p>Primary sclerosing cholangitis.</p> <p>Benign and malignant liver tumors.</p> <p>Acute and chronic pancreatitis, classification, treatment.</p> <p>Benign and malignant tumors of the pancreas.</p> <p>Diseases of the small intestine. Malabsorption syndrome.</p> <p>Inflammatory diseases of the colon. Nonspecific ulcerative colitis. Crohn's disease.</p>
4	Kidney disease	<p>Methods for the differential diagnosis of kidney disease.</p> <p>Acute kidney injury. Acute kidney disease.</p> <p>Chronic kidney disease.</p> <p>Acute glomerulonephritis. Acute nephritic syndrome. Clinical and laboratory diagnostics.</p> <p>Chronic glomerulonephritis. Classifications.</p> <p>Amyloidosis of the kidneys. Nephrotic syndrome.</p> <p>Acute and chronic pyelonephritis. Urolithiasis disease.</p> <p>Diseases of the large vessels of the kidneys.</p>
5	Diseases of the hematopoietic organs	<p>Anemia. Classifications.</p> <p>B12 - (folic acid) - deficiency anemia. Addison-Birmer disease.</p> <p>Aplastic anemia. Toxic anemias, with radiation sickness and carcinomatosis. Agranulocytosis.</p> <p>Hemolytic anemias. Congenital erythrocytopathies.</p> <p>Hemoglobinopathy. Enzymatic hemolytic anemias.</p> <p>Hemoglobinuria, cold, march. Acquired autoimmune anemia.</p> <p>Hemolytic crises.</p> <p>Acute leukemia. Classifications.</p> <p>Chronic leukemia. Osteomyelosclerosis. Osteomyelofibrosis.</p> <p>Erythremia and erythrocytosis, primary and secondary.</p> <p>Multiple myeloma. Waldenstrom's macroglobulinemia.</p> <p>Lymphogranulomatosis. Lymphosarcoma. Sarcoidosis (Benier-Beck-Schaumann).</p> <p>Hemorrhagic diathesis.</p> <p>Coagulation - anticoagulant blood system. Laboratory and instrumental methods for the study of hemocoagulation.</p> <p>Thrombocytopenic purpura. Hemophilia. Symptomatic thrombocytopenia. Fibrinopenic and fibrinolytic bleeding.</p> <p>Hemorrhagic vasculitis.</p> <p>Disseminated intravascular coagulation syndrome</p>
6	Endocrine system diseases	<p>Diffuse toxic goiter. Methods for determining the function of the thyroid gland and the severity of thyrotoxicosis. Thyrotoxic heart.</p> <p>Thyrotoxic coma. Medication, radiation, surgical treatment.</p> <p>Treatment of complications.</p> <p>Nodular / multinodular goiter.</p> <p>Autoimmune thyroiditis.</p> <p>Hypothyroidism Hyperparathyroidism. Hypoparathyroidism.</p>

		Diabetes. Classifications. Laboratory diagnostic methods. Features of diabetes mellitus in adolescence and old age, with obesity. Complications. Ketoacidotic, hyperosmolar, hypoglycemic coma. Macro- and microangiopathy. Principles of treatment of type I and II diabetes mellitus. Treatment of coma and complications. Acromegaly. Diabetes insipidus. Acute and chronic adrenal cortex insufficiency. Emergency therapy methods. Itsenko-Cushing's disease and syndrome. Laboratory and instrumental diagnostic methods. Hypothalamic syndrome. Connes syndrome. Primary and secondary hyperaldosteronism. Pheochromocytoma. Functional tests.
7	Collagenoses, joint diseases	Systemic lupus erythematosus. Systemic scleroderma. Dermatomyositis. Periarthritis nodosa. Rheumatoid arthritis. Ankylosing spondylitis. Chronic deforming osteoarthritis. Methods for the treatment of collagen diseases and joint diseases.

5.2. Section of disciplines and types of classes

No. p / p	Name section	Lectures	Practical exercises and laboratory work			CPC	Total
			PZ	LR	Including in IF		
I semester							
1	Respiratory diseases	6	6			10	22
2	Diseases of the circulatory system	8	6		2	12	28
3	Diseases of the digestive system	6	6			10	22
Total		20	18		2	32	72
II semester							
4	Kidney disease	5	5			8	18
5	Diseases of the hematopoietic organs	5	5			8	18
6	Endocrine system diseases	5	5			8	18
7	Collagenoses, joint diseases	5	3		2	8	18
Total		20	18		2	32	72
TOTAL		40	36		4	64	144

6. Practical lessons (seminars)

No. p / p	Discipline section	Practical training topics (seminars)	Labor intensity (hours)
1	Respiratory diseases	1. Pneumonia 2. COPD 3. Bronchial asthma	6

2	Diseases of the circulatory system	1.Arterial hypertension 2. Stable ischemic heart disease. Acute coronary syndrome. Myocardial infarction 3.Infective endocarditis	8
3	Diseases of the digestive system	1. Peptic ulcer and 12 duodenal ulcer 2. Diseases of the small and large intestines 3. Cirrhosis of the liver	6
4	Kidney disease	1. Chronic kidney disease 2. Glomerulonephritis 3. Renal artery stenosis	5
5	Diseases of the hematopoietic organs	1. Anemia 2.Hemoblastosis	5
6	Endocrine system diseases	1 diabetes mellitus 2. Diseases of the thyroid gland	5
7	Collagenoses, joint diseases	1. Rheumatoid arthritis 2.Systemic lupus erythematosus	5

7. Material and technical support of the discipline:

P / p No.	Department name	Name of special * rooms and rooms for independent work	Name of benefits, equipment
1.	Department of Internal Medicine with a course of cardiology and functional diagnostics named after V.S. Moiseeva	Moscow, st. Vavilova, 61, GBUZ GKB im. V.V. Vinogradov DZ Moscow " 10 classrooms for 30, a conference hall for 200 training and seating places.	Lecture rooms are equipped with multimedia equipment. The offices are equipped with computers and Internet access, there is a scientific laboratory for genetic research. 1 lecture hall (multimedia projector, screen), 1 lecture room (laptop, LCD plasma screen). ECG rooms, ECHO-cardiography, functional diagnostics laboratory, general clinical laboratory, wards with patients of various therapeutic and cardiological profiles. Sets of specialized furniture, technical means: a dummy for practicing physical examination skills (2 pcs.), A multimedia projector (4 pcs.), A plasma panel (3 pcs.), A laptop (8 pcs.), A tablet (11 pcs.), A personal computer (7 pcs), magnetic board. A set of dummies, a set of educational videos and presentations, a set of analog and digital radiographs, tomograms, sonograms, angiograms, educational posters and tables.

8. Educational-methodical and informational support of the discipline

a) main literature

1. D. Zipes, P. Libby et all. Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine, 2-Volume Set, 11th Edition. Elsevier, 2018 .-- 2128.
2. Hurst's The Heart, 14th Edition. V. Fuster, RA Harrington, J. Narula, ZJ Eapen. McGraw-Hill Education, 2017 .-- 2208
3. Heart Failure: A Companion to Braunwald's Heart Disease, 3th Edition. D. Mann, GM Felker. Saunders, 2015 .-- 784
4. Harrison's Principles of Internal Medicine, 20th Edition. D. Kasper, AS Fauci, SL Hauser, DL Longo, JL Jameson, J. Loscalzo. McGraw-Hill Education / Medical, 2018.
5. Davidson's Principles and Practice of Medicine, 23th Edition. SH Ralston, ID Penman, M. W. J. Strachan. Elsevier, 2018 .-- 1440

6. Feigenbaum's Echocardiography. 8th Edition. WF Armstrong, T. Ryan. Wolters Kluwer. 2018 .-- 2841.
7. Evidence-Based Medicine - 5th Edition. S. Straus, P. Glasziou, S. Richardson, B. Haynes. Elsevier, 2018 .-- 336.
8. Internal Medicine with the Basics of Evidence-Based Medicine and Clinical Pharmacology: A Guide for Physicians / VS Moiseev, Zh.D. Kobalava; Ed. V.S. Moiseeva. - M.: GEOTAR-Media, 2008 .-- 832 p.
9. Moiseev V.S., Moiseev S.V., Kobalava Zh.D .. Heart Diseases. M .: "Medical Information Agency", 2008. -528.
10. Guidelines for the diagnosis and treatment of chronic heart failure. European Heart Journal (2008) 22, 1527-156.
11. American College of Cardiology / European Society of Cardiology Clinical Expert Consensus Document on Hypertrophic Cardiomyopathy European Heart Journal (2010) 24, 1965-1991
12. Guidelines on Prevention, Diagnosis and Treatment of Infective Endocarditis Executive Summary European Heart Journal (2009) 25, 267-276
13. ACC / AHA / ESC guidelines for the management of patients with atrial fibrillation. European Heart Journal (2010) 22, 1852-1923
14. Guidelines on diagnosis and treatment of pulmonary arterial hypertension European Heart Journal (2010) 25, 2243–2278
15. Moiseev V.S., Kiyakbaev G.K. Cardiomyopathies and myocarditis. Moscow, GEOTAR-Media. - 2013. 352s
16. Acute heart failure / V. S. Moiseev. - M.: Medical Information Agency, 2012 .-- 328 p.
17. Emergencies in the clinic of internal diseases. Ed. P.P. Ogurtsova, V.E. Dvornikov. Moscow. RUDN. 2013.571s.
18. Fundamentals of Internal Medicine / J. D. Kobalava, S. V. Moiseev, V. S. Moiseev; Under. ed. V.S. Moiseeva. - Electronic text data. - M.: GEOTAR-Media, 2014 .-- 888 p.
19. Guidelines for the management of patients with atrial fibrillation. [www. cardiosite.ru](http://www.cardiosite.ru)
20. Expert Consensus Document on the Use of Antiplatelet Agents. European Heart Journal (2014) 25, 166-181.
21. Kobalava ZhD., Villevalde S.V., Efremovtseva M.A. (ed. Kobalva Zh.D., Moiseev V.S.). Fundamentals of cardiorenal medicine. Moscow, GEOTAR-Media. - 2014.256s.
22. Internaldiseases in 2 volumes: textbook / Ed. ON THE. Mukhina, V.S. Moiseeva, A.I. Martynov. Moscow, GEOTAR-Media, 2014.
23. Cardiology. National leadership. Edited by E.V. Shlyakhto Geotar-Media. 2015.800 p.
24. ESC Guidelines for the Management of Patients with Infective Endocarditis, 2015. Available on the website:<http://www.scardio.org/guidelines>
25. Fundamentals of Internal Medicine. Manual in 2 volumes / ed. V.S. Moiseev, Zh.D. Kobalava, I.V. Maev, A.D. Kaprin, E.I. Gusev, M.V. Shestakova, S.V. Moiseev. 2nd ed., Rev. and add. Moscow. LLC "Medical Information Agency", 2020.

b) additional literature

1. The ESC Textbook of Cardiovascular Medicine. TF Lüscher, JA Camm, G. Maurer, P. Serruys. Oxford University Press, 2018.
2. Oxford Textbook of Advanced Heart Failure and Cardiac Transplantation - Oxford Medicine. MJ Domanski, MR Mehra, MA Pfeffer. Oxford University Press, 2016 .-- 442.
3. The ESC Textbook of Intensive and Acute Cardiovascular Care. M. Tubaro, P. Vranckx, S. Price, C. Vrints. Oxford University Press, 2015 .-- 799.
4. The EHRA book of Pacemaker, ICD, and CRT Troubleshooting. H. Burri, C. Israel, J.-C. Deharo. Oxford, 2015 .-- 310.
5. The EACVI Textbook of Cardiovascular Imaging. JL Zamorano et al. Oxford University Press, 2015 .-- 678.

6. The ESC Handbook on Cardiovascular Pharmacology. JC Kaski, KP Kjeldsen. Oxford University Press, 2019. -960.
7. How to Read a Paper: The Basics of Evidence-based Medicine and Healthcare, 6th Edition | Trisha Greenhalgh, T. Greenhalgh... Blackwell Bmj Books, 2006.-- 229.
8. Internal illnesses. Ed. A.I.Martynov, N.A.Mukhin, V.S.Moiseev- M .: "Geotar-media", 2001
9. Emergency care in therapy and cardiology / Ed. Yu.I. Greenstein, M. GEOTAR-Media, 2009.-- 224 p.
10. Internal illnesses. The cardiovascular system/ Roitberg G.E., Strutynsky A.V. - MEDpress-inform, 2011.

c) journals:

1. Journal of the American College of Cardiology.
2. JACC: Heart Failure.
3. JACC: Cardiovascular Imaging.
4. Circulation.
5. Circulation: Heart Failure.
6. European Heart Journal.
7. European Journal of Heart Failure.
8. European Heart Journal - Cardiovascular Imaging.
9. EP-Europace.
10. JAMA: Cardiology
11. JAMA: Internal Medicine.

Internet resources:

1. Portal of the All-Russian Scientific Society of Cardiology and the Association of Pediatric Cardiologists of Russia. [http:// www. cardiosite.ru/](http://www.cardiosite.ru/)
2. Portal of the European Association of Cardiology. <http://www.escardio.org/>
1. American Heart Association website. <http://www.heart.org/HEARTORG/>, www.acc.org
4. Electronic library system of RUDN University;
5. Educational portal of RUDN University (<http://web-local.rudn.ru/>);
6. Scientific electronic library (<http://elibrary.ru/defaultx.asp>);
7. Universal library ONLINE (<http://biblioclub.ru>);
8. Library of electronic journals BENTHAM OPEN (<http://www.benthamscience.com/open/az.htm>);
9. Library of electronic journals Elsevier (<http://www.elsevier.com/about/open-access/open-archives>)
10. Medical online library MedLib (<http://med-lib.ru/>);
11. Recommendations of the Russian Society of Cardiology www.scardio.ru
12. US National Library of Medicine National Institutes of Health: <http://www.ncbi.nlm.nih.gov/pubmed/>
13. Scientific electronic library: <http://library.ru/defaultx.asp>

9. Methodical instructions for students on mastering the discipline:

In practical classes and lectures in the classroom, the relevant topics are analyzed using multimedia technology (computer, projector). For classes and lectures, presentations prepared in Microsoft PowerPoint are intended. The main purpose of the practical training is to study the etiology, pathogenesis, clinical picture, diagnostic methods, differential diagnosis and methods of treatment of diseases of internal organs.

Independent work of a graduate student

Independent work of graduate students during extracurricular hours can take place as in a computer class, where graduate students can study material on the presentations prepared by the teachers of the department, as well as on computer tests.

As one of the forms of independent work, it is envisaged that graduate students prepare abstracts for various sections of the course and presentations of reports at meetings of the department.

Extracurricular independent work of a postgraduate student includes:

- The study of material on the textbook, teaching aids on paper and electronic media.
- Preparation of an abstract message / presentation on a selected topic.
- Preparation for the execution of tests and test tasks.


10. Funds of assessment tools for intermediate certification by discipline

Materials for assessing the level of mastering the educational material of the discipline "Internal medicine" (evaluation materials), including a list of competencies with an indication of the stages of their formation, a description of indicators and criteria for assessing competencies at various stages of their formation, a description of the assessment scales, standard control tasks or other materials necessary for assessing knowledge, skills, skills and (or) experience of activity, characterizing the stages of the formation of competencies in the process of mastering the educational program, methodological materials that determine the procedures for assessing knowledge, skills, skills and (or) experience of activities that characterize the stages of formation competencies are developed in full and are available for students on the discipline page at TUIS RUDN.

The program has been drawn up in accordance with the requirements of the OS of VO RUDN.

Developers:

Associate Professor of Department Internal diseases
with a course of cardiology and functional
diagnostics named after V. S. Moiseev
position, department name


signature

E.O.Kotova.
initials, surname

Head of the Department of Internal diseases
with a course of cardiology and functional
diagnostics named after V. S. Moiseev
position, department name


signature

Kobalava Zh. D.
initials, surname

Program Manager

Head of the Department of Internal diseases
with a course of cardiology and functional
diagnostics named after V. S. Moiseev
position, department name


signature

Kobalava Zh. D.
initials, surname

Head of the Department

Head of the Department of Internal diseases
with a course of cardiology and functional
diagnostics named after V. S. Moiseev
position, department name


signature

Kobalava Zh. D.
initials, surname