### FEDERAL STATE BUDGETARY EDUCATIONAL INSTITUTION OF HIGHER EDUCATION "AMUR STATE MEDICAL ACADEMY" MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

**AGREED** 

Vice-Rector for Academic Affairs,

N.V. Loskutova

April17, 2025

Decision of the CCMC

April 17, 2025

Protocol No. 7

**APPROVED** 

by decision of the Academic Council of the FSBEI HE Amur SMA of the Ministry of Health of the Russian Federation April 22, 2025

Protocol No. 15

Acting Rector of the FSBEI HEAmur SMA of the Ministry of Health of the

Russian Federation

I.V. Zhukovets

### **EDUCATIONAL PROGRAM**

practice «General medical practice»

Specialty: 31.05.01 General Medicine

Course: 6 Semester: 12

Total hours: 432 hrs.

Total credits: 12 credit units

Форма контроля: credit, 12 semester

The educational program of the discipline is designed in accordance with the requirements of the Federal State Educational Standard of Higher Education - specialist in specialty 31.05.01 General Medicine, approved by the order of the Ministry of Education and Science of Russia dated 08.12.2020 No. 988 (registered with the Ministry of Justice of Russia on 08.26.2020 No. 59493), BPEP HE (2021).

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### 1. Explanatory note

### 1.1. Characteristics of the practice

An important stage in preparing students for practical medical work is on-the-job training. The purpose of the training is to develop practical skills and abilities, consolidate and deepen the theoretical knowledge acquired during their studies, introduce students to the fundamentals of healthcare organization and the anti-epidemic activities of medical organizations, conduct public health education, adapt students to the real-life conditions of their future work, and ensure students adhere to work discipline and internal regulations at primary healthcare organizations.

The area of professional activity and spheres of professional activity in which graduates who have mastered the specialist program can carry out professional activities: healthcare (in the field of providing primary health care to the population in medical organizations: clinics, outpatient clinics, inpatient and outpatient institutions of the municipal health care system and medical and preventive institutions providing primary health care to the population);

The types of professional activities for which graduates of specialist degree programs are prepared include medical, research, and organizational and managerial. Graduates who have completed the specialist degree program are prepared to address the following professional challenges in accordance with the type(s) of professional activity targeted by the specialist degree program:

- medical activities: prevention of the occurrence of diseases among the population by carrying out preventive and anti-epidemic measures; participation in the provision of emergency medical care in conditions requiring urgent medical intervention; the formation of motivation in the population, patients and their family members aimed at maintaining and strengthening their health and the health of others; teaching patients basic hygienic health measures that contribute to the prevention of diseases and strengthening health;
- research activities: analysis of scientific literature and official statistical reviews, participation in statistical analysis and public presentation of the results obtained;

- organizational and managerial activities: creation of favorable conditions for the stay of patients and the work of medical personnel in medical organizations; maintenance of medical records in medical organizations; compliance with basic information security requirements.

The objects of professional activity of graduates of the specialist program are:

- individuals (patients) aged 15 to 18 years and over 18 years of age (hereinafter referred to as adolescents and adults);
  - population;
- a set of tools and technologies aimed at creating conditions for protecting the health of citizens.

Industrial practice "General Medical Practice" for sixth -year students is conducted in the 11th semester and consists of 9 modules:

- 1. Communication skills (distance learning).
- 2. Infectious diseases in the practice of a primary care physician.
- 3. Current issues in cardiology.
- 4. Acute cardiovascular pathology in general medical practice.
- 5. Oncological diseases, cancer prevention, palliative care.
- 6. Detection of tuberculosis in the general health care network.
- 7. Socially significant endocrine diseases.
- 8. Cardiopulmonary resuscitation.
- 9. Fundamentals of practical training for professional activities of a district physician.

### MODULE 1 "COMMUNICATIVE SKILLS"

### 1.2. Purpose and objectives of the practice.

The goal of the internship is to improve the skills necessary for effective communication between a doctor and a patient in various situations (in inpatient and outpatient medical care).

### **Practice objectives:**

- •to form concepts about communication skills, the communication process and the communicative competence of a doctor;
- •to provide an understanding of the importance of skills for effective and conflict-free communication with patients;
- •to gain an understanding of the psychological requirements for a doctor's personality; the correct construction and conduct of a medical interview with a patient;
- •to develop skills for effective and conflict-free communication in outpatient settings;
- •identify barriers and propose solutions to problems that hinder effective communication between doctor and patient.

## 1.3. The place of practice in the structure of the main professional educational program of higher education.

In accordance with the Federal State Educational Standard of Higher Education (FSES VO) for the specialty 31.05.01 General Medicine (2020), the "Communication Skills" module of the "General Medical Practice" industrial practice course is part of the core component, Block 2. The total workload is 18 hours and is conducted in the 11th semester of the sixth-year student. Assessment is by credit and grade in the 11th semester.

### 1.4. Forms of practice control.

Intermediate control is used as a form of monitoring the completion of practical training, including testing, control of theoretical knowledge, and control of the acquisition of practical skills.

### 1.5. Internship reporting forms.

Industrial practice diary, individual problem-based assignment for industrial practice, calendar schedule for completing the practice .

### 1.6. Requirements for students.

## To master the practice, knowledge, skills and abilities formed by previous disciplines/practices are necessary:

### **Psychology and Pedagogy**

**Knowledge:** subject, objectives, methods of psychology and pedagogy, main stages of development of modern psychological and pedagogical thought, personality psychology (basic theories of personality, temperament, emotions, motivation, will, human abilities), fundamentals of developmental psychology, health psychology and social psychology.

*Skills:* use psychological knowledge in one's professional activities , in the process of developing medical and psychological treatment tactics, in the process of building relationships with patients and colleagues, in research , preventive and educational work; use knowledge of the fundamental principles, modern achievements , problems and trends in the development of the relevant scientific field in the educational process .

*Skills:* take into account the psychological characteristics of the patient during the treatment process, conduct negotiations and interpersonal conversations, conduct scientific research and organize collective scientific research work, master the methods and techniques of oral and written presentation of subject material, methods of developing independent work skills.

### **Philosophy**

**Knowledge:** methods and techniques of philosophical analysis of problems, basic philosophical categories and laws, basic problems associated with the study of philosophical anthropology, basic ideas about the nature, essence and structure of personality, methods for assessing the role of science (medicine) in the development of the personality of a person (doctor), basic axiological categories.

*Skills*: independently analyze and evaluate the ideological and ethical views of others; trace the influence of fundamental philosophical laws of dialectics and ideas on the development of science (medicine); independently analyze modern philosophical and scientific concepts of human nature; develop an independent attitude toward the categories of human existence; understand the connection between philosophical teachings on cognition and the methods of medical science; formulate and convincingly defend one's own position on various philosophical issues.

*Skills:* expressing an independent point of view on various philosophical issues, analyzing and thinking logically, conducting discussions, round tables, philosophical argumentation, and public speaking; methods of analyzing various philosophical problems and ideological schools; written argumentation of one's own point of view; skills in perceiving and analyzing texts with philosophical content, methods of philosophical analysis of the problems and contradictions of society and man.

### **History of medicine**

**Knowledge:** patterns and trends in the development of the global historical process, Russia's influence on the development of medicine, the influence of the environment on human health, the formation and development of medical science, outstanding figures in medicine and pharmacy, outstanding medical discoveries, the influence of humanistic ideas on medicine.

*Skills*: to competently and independently analyze and evaluate the social situation in Russia and abroad and carry out their activities taking into account the results of this analysis, carry out activities taking into account the moral and legal norms accepted in society, comply with the rules of medical ethics, laws and regulations on working with confidential information, maintain medical confidentiality, study scientific and medical information, domestic and foreign experience on the topic of research.

*Skills:* and express their own point of view, possess public speaking skills, moral and ethical argumentation, conduct discussions and round tables.

#### **Bioethics**

**Knowledge:** basic ethical terms and concepts, fundamental ethical theories, norms and principles of professional ethics, key national and international ethical documents; basic cognitive and axiological choices, their role in addressing fundamental issues of medical ethics and deontology; rights and moral obligations of healthcare professionals; legal and moral rights of patients; content of contemporary moral and ethical debates on healthcare development issues.

*Skills*: formulate and argue one's own position on various issues of bioethics, use the provisions and categories of ethics and bioethics to evaluate and analyze various trends, facts and phenomena in the healthcare system.

*Skills:* skills of expressing an independent point of view, analysis and logical thinking, public speaking, moral and ethical argumentation, conducting discussions and round tables, principles of medical deontology and medical ethics, applying knowledge, abilities and skills acquired during the course of mastering the discipline in professional activities.

# 1.7. Interdisciplinary connections of the module with subsequent disciplines/practices

Knowledge and skills acquired during the course of studying the module and necessary for studying subsequent disciplines and practices:

No.	Name of subsequent	Communication Skills Module
	disciplines	
1.	Clinical pharmacology	+
2.	Forensic medicine	+
3.	Outpatient therapy	+
4.	Hospital therapy	+

### 1.8 Requirements for the results of mastering the practice

Mastering the "Communication Skills" module is aimed at developing/improving the following competencies: universal (UC): 1, 3, 4, 5, 9; general professional (GPC) – 1, 6.

Ite m	UC code and name	Upon completion of the module "Otolaryngology in the Practice of a Pediatrician", the student should:			UC achievement indicator
No.		know	be able to	own	
			Universal compete	encies	
1	UC -1. Able to carry out a critical analysis of problematic situations based on a systems approach and develop an action strategy	1	Conduct a critical analysis of problematic situations based on a	Skills in critical analysis of problem situations based on a systems approach, skills in developing	AI UC-1.1. Analyzes a problematic situation as a system, identifying its components and the connections between them.  AI UC-1.2. Identifies gaps in information needed to solve problem situations and designs processes to eliminate them.  AI UC-1.3. Applies systems analysis to resolve problematic situations in the professional field.
					AI UC-1.4. Uses logical and methodological tools to critically evaluate contemporary philosophical and social concepts in their subject area.  AI UC - 1.5. Critically evaluates the reliability of information sources and works with conflicting information from different sources.

2	UC -3.	Principles of	Organize and manage	Skills in organizing	l
	Able to organize and manage the work of a	organizing and managing a team,	the team's work, develop a strategy to	and managing a team, developing a	professional relationships in accordance with the needs of joint activities, including
	team, developing a team	managing a team, developing a	achieve the set goal	strategy to achieve	information exchange and the
	strategy to achieve the set		demeve the set godi	a set goal	development of a unified strategy; works
	goal	a set goal			in a tolerant manner within a team,
					accepting social, ethnic, religious, and
					cultural differences.
					AI UC 3.2. Plans and adjusts team work
					based on the interests, behavioral
					characteristics, and opinions of team
					members, assigns tasks, and delegates
					authority to team members.
					AI UC-3.3. Selects constructive ways to
					resolve conflicts and contradictions in
					business communication.
					AI UC-3.4. Organizes discussions on a
					given topic and debates the team's work
					results, engaging opponents of the
					developed ideas.
3	UC -4.	Principles of	Use modern	Skills in using	AI UC -4.1. Uses communicative and
	Able to use modern	application of	communication	modern	linguistic tools to build effective
	communication	modern	technologies,	communication	partnerships with patients and colleagues;
	technologies, including	communication	including in foreign	technologies,	selects a communication style.
	in foreign language(s),	technologies,	language(s), for	including in foreign	AI UC-4.2. Uses modern communication
	for academic and	including in foreign	academic and	language(s), for academic and	resources to search, process, and transmit
	professional interaction	language(s), for academic and	professional interaction	professional	information necessary for the effective performance of professional tasks and the
		professional	meracuon	interaction	achievement of professionally significant
	L	F-510001011df	<u> </u>		arms, ement of professionally significant

4	UC -5. Able to analyze and take into account cultural diversity in the process of intercultural interaction	Principles of analysis and consideration of cultural diversity in the process of intercultural interaction	Analyze and consider cultural diversity in the process of intercultural interaction	Skills in analyzing and taking into account cultural diversity in the process of intercultural interaction	goals.  AI UC-4.4. Presents the results of academic and professional activities at various public events, including international ones, choosing the most appropriate format.  AI UC-4.5. Defends their positions and ideas in a reasoned and constructive manner in academic and professional discussions in the official language of the Russian Federation and a foreign language.  AI UC-5.2. Builds social and professional interactions that take into account the characteristics of the main forms of scientific and religious consciousness, business and general culture of representatives of other ethnic groups and faiths, and various social groups.  AI UC-5.3. Ensures the creation of a non-discriminatory interaction environment when performing professional tasks.
5	UC -9. Able to use basic defectological knowledge in social and professional spheres	Principles of using basic defectological knowledge in social and professional spheres	Apply basic defectological knowledge in social and professional spheres	Skills in using basic defectological knowledge in social and professional spheres	AI UC-9.1. Understands the principles of non-discriminatory interaction in communication across various spheres of life, taking into account the sociopsychological characteristics of individuals with disabilities.

					<b>AI UC-9.2.</b> Defines adequate methods for organizing joint professional activities with the participation of persons with disabilities.
			General professional co	_	
6	Able to implement moral and legal norms, ethical and deontological principles in professional activities	Principles of using information, bibliographic resources, information and communication technologies, taking into account the basic requirements of information security, medical and biological terminology.	Use information, bibliographic resources, and information and communication technologies taking into account the basic requirements of information security	standard professional tasks	activities in accordance with ethical standards and moral principles.  AI GPC-1.2. Organizes professional activities, guided by healthcare legislation, knowledge of medical ethics, and deontology.  AI GPC-1.3. Skills in expressing an independent point of view, analytical and logical thinking, public speaking, moral and ethical argumentation, conducting discussions and roundtables, and understanding the principles of medical
7	GPC-6. Capable of organizing patient care, providing primary health care, ensuring the organization of work and making professional decisions in emergency situations at the pre-hospital stage, in	Principles of organizing patient care, the basics of providing primary health care, ensuring the organization of work and making professional	Organize patient care, provide primary health care, ensure the organization of work and the adoption of professional decisions in emergency situations	Skills in organizing patient care, providing primary health care, ensuring the organization of work and making professional decisions in	AI GPC-6.1. Organizes patient care and provides primary health care and emergency care to patients.  AI GPC-6.2. Uses medical equipment for protection, prevention, provision of medical care, and treatment of injuries caused by toxic substances of various

emergency situations,	decisions in	at the pre-hospital	emergency	origins, radioactive substances, and
epidemics and in areas of	emergency	stage, in emergency	situations at the	biological agents.
mass destruction	situations at the	situations, epidemics	pre-hospital stage,	AI CDC 6.2 Makes mustassismal
	pre-hospital stage, in emergency situations, epidemics and in areas of mass destruction	and in areas of mass destruction	in emergency situations, epidemics and in areas of mass destruction	AI GPC-6.3. Makes professional decisions in emergency situations and provides first aid at the pre-hospital stage, during emergencies, epidemics, and in areas of mass casualties.
				AI GPC-6.4. Organizes the work of medical personnel and implements antiepidemic measures to protect the population during emergencies, epidemics, and in areas of mass casualties.

### 1.9 Stages of competencies development and description of assessment scales



### 2. Structure and content of practice

### 2.1 Scope of practice

Scope of practice	
Total labor intensity of practice in hours, total	432
Hours of work required for the Communication Skills Module	18
Total workload in credit units, total	12
Type of intermediate assessment	credit with grade

### 2.2. Type of practice – industrial.

Industrial internship is a mandatory part of the curriculum, directly focused on students' professional and practical training. During the program, students are encouraged to master a set of required practical skills.

### 2.3. Criteria for assessing students' knowledge.

Ongoing monitoring of students' implementation of the internship program is carried out daily by internship supervisors in the form of monitoring the completion of individual internship assignments, keeping internship diaries, and developing practical skills and abilities.

Interim assessment (credit) is carried out through an interview on theoretical issues, testing, verification of the acquisition of practical skills and abilities, and evaluation of reporting forms.

The instructor individually evaluates each student's progress toward the goals and objectives of the internship. The assessment is based on test results, mastery of practical skills, abilities, and theoretical knowledge, the correctness of the student's diary, and the student's self-discipline.

The basis for determining the level of knowledge, skills, and abilities are the assessment criteria - completeness and correctness:

- correct, precise answer;
- correct, but incomplete or inaccurate answer;
- incorrect answer;
- no answer.

When assigning marks, the classification of errors and their quality are taken into account:

- -gross errors;
- similar errors;
- minor errors:
- shortcomings.

### Assessment scales for intermediate knowledge control

The success of students in mastering industrial practice: practical skills and abilities is characterized by a qualitative assessment and is assessed on a 5-point system: "5" - excellent, "4" - good, "3" - satisfactory, "2" - unsatisfactory.

### Criteria for assessing the theoretical part

- "5" for the depth and completeness of mastery of the content of the educational material, in which the student can easily navigate, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present their answer competently and logically.
- "4" the student has fully mastered the educational material, is oriented in it, and expresses his answer competently, but the content and form contain some inaccuracies.
- "3" the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, and does not know how to express and justify his judgments.
- "2" the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and the secondary, makes mistakes in defining concepts, distorts their meaning, and presents the material in a disorderly and uncertain manner.

### Test control evaluation criteria

- "5" when testing, up to 10% of incorrect answers are allowed.
- "4" allows up to 20% of incorrect answers during testing.
- "3" allows up to 30% of incorrect answers during testing.
- "2" during testing, more than 30% of incorrect answers are allowed.

Criteria for assessing the practical part

- "5" the student has fully mastered the practical skills and abilities provided for in the work program of industrial practice.
- "4" the student has mastered the practical skills and abilities provided for in the work program of industrial practice, but allows for some inaccuracies.
  - "3" the student has only some practical skills and abilities.
- "2" the student has only some practical skills and abilities and performs them with gross errors.

### 3. Material, technical and educational support for the module

### 3.1. Main literature:

- 1. Borozdina, G. V. Psychology of communication: textbook and practical training for secondary vocational education / G. V. Borozdina, N. A. Kormnova; edited by G. V. Borozdina. Moscow: Yurait Publishing House, 2017. 463 p. Access mode: <a href="https://www.biblio-online.ru/viewer/17E15D39-446E-4D42-9C60-E5345C07660A#page/1">https://www.biblio-online.ru/viewer/17E15D39-446E-4D42-9C60-E5345C07660A#page/1</a>
- 2. Konovalenko, M. Yu. Psychology of communication: textbook for secondary vocational education / M. Yu. Konovalenko, V. A. Konovalenko. M.: Yurait Publishing House, 2017. p.https://www.biblio-online.ru/viewer/CEDDEA43-487E-4BDB-B4AA-D1F6CE06FF8D#page/1
- 3. Ostrovskaya I.V., Psychology of communication [Electronic resource]: textbook / Ostrovskaya I.V. M .: GEOTAR-Media, 2018. 192 p. ISBN 978-5-9704-4736-9 Access mode: <a href="http://www.studmedlib.ru/book/ISBN9785970447369.html">http://www.studmedlib.ru/book/ISBN9785970447369.html</a>

### 3.2 Further reading

- 1. Efimova N.S. Psychology of Communication. Workshop on Psychology: Textbook / Efimova Natalia Sergeevna. Moscow; Moscow: Publishing House "FORUM": OOO "Scientific Publishing Center INFRA-M", 2014. 192 p. for vocational school students and students of secondary specialized educational institutions. ISBN 978-5-8199-0249-http://znanium.com/go.php?id = 410246
- 2. Zharov M.N. Psychology of Communication [Text]: textbook for students of secondary vocational education institutions / M.N. Zharova. M.: Publishing Center "Academy", 2014. 256 p. (Professional education). ISBN 978-5-7695-6755-1 Access mode: <a href="mailto:academia-moscow.ru">academia-moscow.ru</a> off-line / <a href="mailto:books/fragment">books/fragment</a>
- 3. Kudryavaya N.V., Psychology and pedagogy [Electronic resource] / N.V. Kudryavaya [and others] M.: GEOTAR-Media, 2015. 400 p. ISBN 978-5-9704-3374-4 Access mode: http://www.studmedlib.ru/book/ISBN9785970433744.html

## 3.3 Educational and methodological support for the module, prepared by the department staff

1. Gerasimova T.V., Skabelkina T.N. Psychology and pedagogy: textbook: Blagoveshchensk, 2018. – 170 p.

Educational, methodological and multimedia materials used in the educational process. List of multimedia materials on electronic media:

1. Electronic encyclopedia "General Etiquette".

### List of videos, photos and video materials used in training:

1. Karelin A. The Great Encyclopedia of Psychological Tests

### 3.4. Equipment used for the practice

No.	Name	Quantity

p/p		
1.	A classroom for conducting seminars (Philosophy Room)	1
2	Board	1
3	Teacher's desk	1
4	Study table	14
5	Chairs	26
6	Multimedia complex	1

# 3.5. Professional databases, information and reference systems, electronic educational resources.

Name resource	Resource Description	Access	Resource address			
	Electronic library systems					
"Student Consultant" Electronic Library of the Medical University.	For students and faculty of medical and pharmaceutical universities. Provides access to electronic versions of textbooks, teaching aids, and periodicals.	library, individual access	http://www. studmedlib.ru/			
"Doctor's Consultant" Electronic Medical Library.	The materials in the library were developed by leading Russian specialists based on modern scientific knowledge (evidence-based medicine). The information was prepared taking into account the position of the scientific and practical medical community (global, European, and Russian) in the relevant specialty. All materials have undergone mandatory independent peer review.	library, individual access	http://www.rosmedlib.ru /cgi-bin/mb4x			
PubMed	MedLine , the largest medical bibliographic database . It documents medical and biological articles from specialized literature and provides links to full-text articles.	library, free access	http://www. ncbi.nlm.nih . gov/ pubmed /			
OxfordMedicine Online .	A collection of Oxford Press medical publications, bringing together over 350 titles into a single, cross-searchable resource. Publications include The Oxford Handbook of Clinical Medicine and The Oxford Textbook of Medicine, the electronic	library, free access	http://www.oxfordmedici ne.com			

			1
	versions of which are constantly updated.		
Human Biology Knowledge Base	Reference information on physiology, cell biology, genetics, biochemistry, immunology, and pathology. (Source: Institute of Molecular Genetics, Russian Academy of Sciences.)	library, free access	http://humbio.ru/
Medical online library	Free reference books, encyclopedias, books, monographs, essays, Englishlanguage literature, tests.	library, free access	http://med-lib.ru/
	Information system	ms	
	A professional internet resource.		
Russian Medical Association	Purpose: to facilitate the effective professional activities of medical personnel. Contains the charter, personnel, Structure, rules of entry, information about the Russian Medical Union.	library, free access	http://www.rmass.ru/
Web medicine	The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.	library, free access	http: //webmed.irkutsk.ru/
	Databases		
Worldwide healthcare organization	The site contains news, statistics on countries that are members of the World Health Organization, fact sheets, reports, WHO publications, and much more.	library, free access	http://www.who.int/ru/
Ministry of Science and Higher Education of the Russian Federation	The website of the Ministry of Science and Higher Education of the Russian Federation contains news, newsletters, reports, publications and much more.	library, free	http://www.minobrnauki.g ov.ru
Ministry of Education of the Russian Federation.	The website of the Ministry of Education of the Russian Federation contains news, newsletters, reports, publications, and much more.	library, free access	https://edu.gov.ru/
Federal Portal "Russian Education"	A single point of access to educational resources. This portal provides access to textbooks on all areas of medicine and healthcare.	library, free access	http://www.edu.ru/ http://window.edu.ru/catal og/?p rubr=2.2.81.1

Bibliographic databases				
BD Russian Medicine	Created at the Central Scientific and Methodological Library, it covers the entire collection since 1988. The database contains bibliographic descriptions of articles from Russian journals and collections, dissertations and their abstracts, as well as Russian and foreign books, institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related fields of biology, biophysics, biochemistry, psychology, etc.	library, free access	http://www.scsml.rssi.ru/	
eLIBRARY.RU	A Russian information portal in science, technology, medicine, and education, containing abstracts and full texts of over 13 million scientific articles and publications. The eLIBRARY.RU platform offers electronic versions of over 2,000 Russian scientific and technical journals, including over 1,000 openaccess journals.	library, free access	http://elibrary.ru/defaultx.a sp	
Portal Electronic library of dissertations	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	library, free access	http://diss.rsl.ru/?menu= disscatalog/	
Medline.ru	Biomedical portal for specialists. Biomedical journal. Last updated February 7, 2021.	library, free access	http://www.medline.ru	

### ${\bf 3.6}$ . Licensed and freely distributed software used in the educational process.

	I. Commercial software products				
1.	MS Windows 7 Pro operating system	License number 48381779			
2.	Operating system: MS Windows 10 Pro, MS	AGREEMENT No. 142 A dated December			
	Office	25, 2019			
3.	MS Office	License numbers: 43234783, 67810502,			
		67580703, 64399692, 62795141, 61350919			
4.	Kaspersky Endpoint Security for Business	Agreement No. 977/20 dated 12/24/2020			
	Advanced				
5.	1 C: PROF University	LICENSE AGREEMENT No. 2191 dated			
		October 15, 2020			
6.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated			
		November 11, 2020			
	II. Freely distribu	ted software			

	Carala Clausus	Freely distributed	
1.		Distribution conditions:	
1.	Google Chrome	https://play.google.com/about/play-	
		terms/index.html	
		Freely distributed	
2.	Yandex Browser	License Agreement for the Use of Yandex	
۷.		Browser Software	
		https://yandex.ru/legal/browser_agreement/	
	Dr.WebCureIt!	Freely distributed	
3.		License Agreement:	
<i>J</i> .		https://st.drweb.com/static/new-	
		www/files/license_CureIt_ru.pdf	
		Freely distributed	
4.	OpenOffice	License:	
		http://www.gnu.org/copyleft/lesser.html	
		Freely distributed	
5.	LibreOffice	License:	
		https://ru.libreoffice.org/about-us/license/	

### 3.7. Resources of the information and telecommunications network "Internet"

- Amur State Medical Academy Library. Access mode: https://amursma.ru/obuchenie/biblioteki/biblioteka-amurskoy-gma/

- Electronic Library System "Student Consultant". Access mode:

http://www.studmedlib.ru/cgi-bin/mb4x

- Electronic library of medical literature. Access mode:

https://www.books-up.ru/ru/entrance/97977feab00ecfbf9e15ca660ec129c0/

#### 4. Assessment Fund

### 4.1. Examples of midterm assessment test assignments in the Moodle system

Access mode: https://educ-amursma.ru/course/view.php?id=705

1 IN THE COMMUNICATION PROCESS, FEEDBACK DEPENDS ON...

- A) how they perceive their communication partner
- B) advice, wishes, conclusions
- B) external conditions
- D) the purposes of communication
- 2. THE GREATEST INFORMATIVENESS IS INHERENT IN...
  - A) verbal information
  - B) gestures
  - B) non-verbal information

### D) cognitive information

### 3. THE COMMUNICATIVE SIDE OF COMMUNICATION INVOLVES...

### A) exchange of information and establishment of relationships

- B) the interaction process
- B) process of activity
- D) evaluation process

## 4.2. List of practical skills that a student should possess after completing the internship:

- skills in taking into account the psychological characteristics of the patient during the treatment process;
- skills in conducting business negotiations and interpersonal conversations;
- skills in teaching patients the rules and methods of leading a healthy lifestyle;
- skills in scientific research and organization of collective scientific research work;
- skills and techniques of oral and written presentation of subject material.

### 4.3. List of questions for the interim assessment

- 1. The concept of communication and its main functions.
- 2. People's ideas about the place and role of communication: a historical cross-section.
- 3. Types and forms of communication.
- 4. The role and place of verbal and non-verbal means of communication in the communication process.
- 5. Define the concepts of "culture of behavior" and "etiquette." Consider whether a person who observes all the rules of etiquette can be called highly moral.
- 6. Intonation and its role in communication.
- 7. The structure of oral speech. The concepts of "paralinguistics" and "extralinguistics".
- 8. The concept of a "language norm". Contemporary problems of colloquial speech.
- 9. Reasons for communication failures.
- 10. Comparative and contrastive characteristics of the concepts "dispute" "discussion" "polemic" "debate".
- 11. International character of gestures.
- 12. Features of the Russian tradition of gesticulation.
- 13. Features and significance of facial expressions, pantomime and proxemics in the communication process.
- 14. Aesthetics and its main categories.
- 15. The problem of the nature of human aesthetic feelings. State your position.
- 16. Medical aesthetics: subject of study and features.
- 17. Types of aesthetic activities in medicine.
- 18. Classical elements reflecting the generation of speech.
- 19. Basic requirements for the topic of a public speech.
- 20. The main parts of a public speech.
- 21. Possible forms of entry.
- 22. Types of speech. Characteristics of the main part of speech.
- 23. Target settings and forms of speech conclusion.
- 24. Main types of arguments.
- 25. Thesis in proof. Components of proof.

- 26. Basic techniques for preparing for a public speech.
- 27. Distinctive features of the scientific style of speech.
- 28. Genres of oral and written scientific speech.
- 29. Terminology of the modern language.
- 30. Language and speech. Basic functions of language and speech.

## MODULE 2 "INFECTIOUS DISEASES IN MEDICAL PRACTICE" PRIMARY HEALTHCARE"

### 1.2. Purpose and objectives of the practice

The purpose of the internship is to improve and systematize theoretical knowledge, develop practical skills in students in organizing and providing outpatient medical care, and prevent the emergence and spread of infectious diseases in the practice of a primary care physician.

The objectives of the internship are to develop a set of work actions and skills within the framework of mastering work functions: examining patients to establish a diagnosis, prescribing treatment and monitoring its effectiveness and safety, conducting preventive measures, including health education work, among patients and their relatives, organizing the activities of medical personnel and maintaining medical records in the provision of outpatient care to patients with infectious diseases in primary health care.

### 1.3. The place of internship in the structure of the OPOEP of HE

In accordance with the Federal State Educational Standard of Higher Education (2020), the "Infectious Diseases in Primary Care Physician Practice" module of the "General Medicine Practice" industrial practice course is part of the core component, Block 2. The total workload is 36 hours and is completed in the 11th semester of the 6th-year student. Assessment is by credit and grade in the 11th semester.

### 1.4. Forms of practice control

The traditional form of control is used – intermediate control, which includes testing, control of theoretical knowledge and practical skills.

### 1.5. Internship reporting forms

Industrial practice diary, individual assignment for industrial practice, calendar schedule for completing the practice .

### 1. 6. Requirements for students

To master the practice, knowledge, skills and abilities formed by previous disciplines/practices are necessary:

### **Biology**

**Knowledge:** basic concepts and problems of the biosphere and ecology, the phenomenon of parasitism and bioecological diseases.

Skills: identify helminth eggs and/or helminths themselves on preparations, slides, photographs,

etc.

Skills: identification of eggs and helminths themselves in preparations and native material.

### **Biochemistry**

**Knowledge:** electrolyte balance of the human body, the main metabolic pathways for the transformation of carbohydrates, lipids, and amino acids, the basics of pigment metabolism in normal conditions and with various types of jaundice, the role of cell membranes and their transport systems in metabolism.

*Skills*: determine biochemical parameters in blood serum (glucose, urea, bilirubin, uric acid, lactic and pyruvic acids, etc.).

Skills: determination of necessary biochemical parameters in various human biological fluids.

### Microbiology, virology

**Knowledge:** classification, morphology, and physiology of microorganisms and their impact on human health. Microbiological diagnostic methods, and the use of basic antibacterial, antiviral, and biological agents.

Skills: conduct microbiological and immunological diagnostics.

Skills: microscopy and interpretation of histological specimens and electron micrographs.

### **Immunology**

**Knowledge**: structure and functions of the human immune system, its age-related characteristics; methods of immunodiagnostics and principles of their assessment; types and indications for the use of immunotropic therapy.

**Skills**: justify the need for a clinical and immunological examination of the patient with subsequent prescription of immunocorrective therapy; interpret the results of an assessment of the immune status and the results of basic diagnostic allergy tests.

*Skills:* algorithm for establishing a preliminary immunological diagnosis; skills in diagnostic and therapeutic measures to provide emergency care in life-threatening conditions.

### Pharmacology

**Knowledge:** classification and main characteristics of drug groups, pharmacodynamics and pharmacokinetics, indications, contraindications, side effects, general principles of prescription writing.

*Skills:* analyze the action of drugs based on their pharmacological properties and the possibility of their use for therapeutic treatment; write prescriptions for drugs, apply basic antibacterial, antiviral, and biological drugs; assess possible manifestations of drug overdose and methods for their elimination; substantiate the principles of pathogenetic therapy for the most common diseases.

Skills: the use of drugs in the treatment, rehabilitation and prevention of various diseases.

### Normal physiology

*Knowledge:* physiology of the cardiovascular, respiratory, nervous systems, gastrointestinal tract, etc., water-electrolyte balance, thermoregulation.

*Skills:* determine physiological norms of internal organs and systems.

Skills: assessment of the physiological state of internal organs and systems.

### Pathological anatomy, clinical pathological anatomy

**Knowledge:** anatomical and physiological, age-sex and individual characteristics of the structure and development of a sick organism.

*Skills*: visually assess and record changes in the organs and tissues of a corpse, substantiate the nature of the pathological process and its clinical manifestations; provide an opinion on the cause of death and formulate a pathological diagnosis; complete a medical death certificate.

*Skills*: comparison of morphological and clinical manifestations of the disease; methods of clinical and anatomical analysis of autopsy, examination of biopsy and surgical material.

### Pathophysiology, clinical pathophysiology

**Knowledge:** morphogenesis, structural and functional bases of diseases and pathological

processes; causes and basic mechanisms of typical pathological processes.

**Skills:** interpret the results of the most common methods of functional diagnostics (electrocardiography, spirography, etc.); analyze

issues of general pathology in light of the modern understanding of the theoretical concept of the doctrine of diseases.

Skills: assessment of the condition of internal organs in various pathologies.

# Hygiene. Hygienic aspects of nutrition, hygiene in healthcare facilities, and hygiene issues in medical and social assistance to the working population.

**Knowledge:** hygienic aspects of work, nutrition, rest of structural divisions of medical organizations, hygienic problems of medical and social assistance to the adult population.

*Skills:* plan, analyze, and assess the health of the population and the impact of environmental and industrial factors on it; implement preventive, hygienic, and anti-epidemic measures; conduct environmental assessments and environmental forecasting of human activities; assess social factors influencing the physical and psychological health of the patient.

*Skills:* organizing events to prevent the impact of factors affecting the state of physical and psychological health, skills in assessing risk factors affecting the physical and psychological state of the patient.

### Propaedeutics of internal diseases

**Knowledge:** methods of physical examination of an adult (inspection, palpation, percussion, auscultation, pulse characteristics) according to age norms.

*Skills: assess* the patient's status during the initial examination and follow-up examinations, interpret the results of additional research methods.

*Skills*: Physical examination of an adult.

### Neurology, medical genetics

*Knowledge:* topics of local disorders of various parts of the nervous system.

Skills: assess the patient's neurological status with subsequent determination of treatment tactics.

Skills: performing diagnostic procedures and algorithm for appropriate therapy.

### **Faculty therapy**

**Knowledge of:** etiology, pathogenesis, pathomorphology, classification, clinical picture, laboratory diagnostics, differential diagnostics, treatment, medical examination, prevention of the most common diseases; methods of conducting laboratory and instrumental examination methods; features of the organization and scope of work of a district physician.

*Skills:* assess the patient's objective status, conduct an accurate clinical and epidemiological diagnosis of the disease to determine diagnostic tactics and timely treatment. Determine indications for hospitalization.

*Skills:* be able to identify the leading clinical symptoms and syndromes, select optimal methods of clinical and instrumental examination for therapeutic diseases, and select appropriate drug and non-drug treatment for therapeutic diseases.

### Surgery (general, faculty)

**Knowledge:** asepsis and antisepsis, surgical symptoms and syndromes in infectious diseases (bleeding, perforation, peritonitis, etc.).

*Skills:* perform primary surgical treatment of a wound and provide emergency care in developing emergency conditions.

**Skills**: performing primary surgical treatment of a wound and an algorithm for providing emergency care in a specific emergency condition.

### 1.7 Interdisciplinary links with subsequent disciplines/practices

Knowledge and skills acquired during industrial internships are necessary for studying subsequent disciplines and practices:

No.	Name of subsequent	<b>Module</b> " Infectious diseases in the practice of a		
	<b>disciplines</b> primary care physician "			
1.	Clinical pharmacology	+		
2.	Forensic medicine	+		
3.	Outpatient therapy	+		
4.	Hospitaltherapy	+		

### 1.8. Requirements for the results of the internship

The study of the discipline "Infectious diseases" is aimed at the formation of the following competencies: universal ( UC ), general professional (GPC) and professional competencies (PC): UC -1, 3; GPC-1, 2, 6; PC-1, 2, 3, 4, 5, 6, 9, 12.

N o	Code and name of the UK	As a result of mastering the practical course "Infectious diseases in the practice of a primary care physician," the student should:			Indicator achievements of the Criminal
p		Know	Be able to	To own	Code
/					
p					
			Universal compete	encies	
1	UC -1. Able to carry out a critical analysis of problematic situations based on a systems approach and develop an action strategy	Features of the development of the infectious process at the present stage, the main problems and concepts in infectology, the relationship with other medical-biological and medical disciplines	infectious disease science and its role in the present day, as well as the contribution of Russian	The ability to analyze the significance of infectious diseases today. Knowledge of the interactions between macro- and microorganisms and the factors contributing to the development of infectious diseases.	situation as a system, identifying its components and the connections between them.  AI UC-1.3. Applies systems analysis to resolve problematic situations in the

2	UC -3. Able to organize and manage the work of a team, developing a team strategy to achieve the set goal	Organizational, ethical and deontological aspects of relationships in the work collective of a healthcare institution, principles of planning and distribution of responsibilities between employees.  The ultimate goals of teamwork	Work in a tolerant team, accepting social, ethnic, religious, and cultural differences. Apply acquired knowledge to achieve goals; conduct discussions on a given topic and debate the team's work, engaging opponents of the ideas developed.	The ability to enter into discussions on the given topic and discuss the results your work with opponents on the chosen topic	AI UC-3.1. Establishes and develops professional relationships in accordance with the needs of joint activities, including information exchange and the development of a unified strategy; works in a tolerant manner within a team, accepting social, ethnic, religious, and cultural differences.  AI UC 3.2. Plans and adjusts team work based on the interests, behavioral characteristics, and opinions of team members, assigns tasks, and delegates authority to team members.  AI UC-3.4. Organizes discussions on a given topic and discusses the results of the team's work with the involvement of opponents to the
2	CDC 1	M1 d 11	01	TT 1:1:4 4	developed ideas.
3	GPC-1. Able to implement moral and legal norms, ethical and deontological principles in professional activities	Moral and legal norms, ethical and deontological principles in professional activities	Observe moral and legal norms, ethical and deontological principles when communicating with colleagues and patients	The ability to carry out professional activities in accordance with ethical standards and moral principles	AI GPC -1.1. Conducts professional activities in accordance with ethical standards and moral principles.
4	GPC-2. Capable of conducting and monitoring the	Methods of preventive medicine aimed at improving health	To apply in practice methods aimed at preventing the occurrence of diseases	The principles of preventive medicine to prevent the development of diseases and eliminate	AI GPC-2.1. Uses preventive medicine methods aimed at improving public health.

	effectiveness of			risk factors for their	
	measures to	1		development	
	prevent, promote a	1			
	healthy lifestyle,	1			
	and educate the	1			
	population about	1			
	health and hygiene				
5	GPC-6.	Methods of providing	Provide primary,	Methods of providing	AI GPC-6.1. Organizes patient care,
	Capable of	primary health care and	medical, and emergency	emergency care to patients	provides primary health care and
	organizing patient	emergency care to	care to patients. Ensure		emergency care to patients.
	care, providing	patients	the organization of work		
	primary health care,	1	and professional		
	ensuring the	1	decision-making in		
	organization of	1	emergency situations at		
	work and making	1	the pre-hospital stage,		
	professional	1	during epidemics, and in		
	decisions in	1	areas of mass casualty.		
	emergency	1			
	situations at the	1			
	pre-hospital stage,	1			
	in emergency				
	situations,				
	epidemics and in				
	areas of mass				
	destruction				

6	PC-1.	Clinical signs of	Provide medical care in	Methods of provision	AI PC - 1.1. Identifies clinical signs
	Able to provide	conditions requiring	urgent and emergency	medical care in urgent and	of conditions requiring emergency
	medical care in	emergency and urgent	situations	emergency forms	medical care.
	urgent and	medical care.			AI PC -1.2. Provides emergency
	emergency				medical care to patients with sudden
	situations				acute illnesses, conditions, and
					exacerbations of chronic diseases
					without obvious signs of a threat to
					the patient's life.
					AI PC -1.3. Identifies conditions
					requiring emergency medical care.
					AI PC - 1.4. Provides emergency
					medical care to patients with life-
					threatening conditions.
					AIPC -1.5. Detects signs of sudden
					cessation of blood circulation and
					breathing.
					AI PC - 1.6. Performs basic
					cardiopulmonary resuscitation in
					combination with electrical impulse
					therapy (defibrillation) in the event of
					clinical death of a patient (in case of
					sudden cessation of blood circulation
7	DC 4	Made de Consedeblishine	Establish as at a said the	M-41-1-1 f	and/or breathing  AI PC -2 .1. Establishes contact
/	PC-2. Capable of	Methods for establishing contact with the patient,	Establish contact with the patient.	Methodology for collecting complaints.	with the patient.
	collecting and	collecting complaints,	Collect complaints from	The ability to analyze	AI PC -2 .2.Collects complaints,
	analyzing	and taking a disease	the patient.	anamnestic data obtained	specifies them, highlighting the
	complaints, life	history. Key clinical	Analyze risk factors, the		main and secondary ones.
	history and	manifestations	dynamics of symptom	Methods of formulating a	AI PC -2.3 . Collects and
	medical history of	(symptoms, syndromes)	development and the	clinical diagnosis and	analyzes information about the
	the patient in order	of the infectious diseases	course of the disease.	being able to justify it	onset of the disease, the presence
	the patient in order	of the infectious diseases	course of the discuse.	come dote to justify it	office of the disease, the presence

	to establish a	studied.	Collect epidemiological		of risk factors, the dynamics of
	diagnosis	Nosological forms of	1		symptom development, and the
	G148110515	diseases in accordance			course of the disease.
		with the ICD (within the			AI PC -2.5 . Collects and
		topics discussed)			evaluates professional and
		copies discussed)			epidemiological anamnesis.
					information about the medical
					history of life, including data on
					past illnesses, injuries and
					surgical interventions,
					hereditary,
8	PC-3.	Methodology of physical	Conduct a physical	Ability to analyze	AI PC-3.1.Conducts a complete
	Able to conduct a	examination of patients	examination of the	physical, clinical and	-
	physical	with infectious diseases.	patient taking into	instrumental data obtained	patient (inspection, palpation,
	examination of a	Principles of laboratory	account ethical and	during examination of the	percussion, auscultation) and
	patient and analyze	and instrumental	deontological principles.	patient	interprets its results.
	the results of	diagnostics of infectious	physical examination		AI PC-3.2.Justifies the
	additional	pathology	data , laboratory and		necessity, scope, sequence of
	examination		instrumental examination		diagnostic measures (laboratory,
	methods in order to		data		instrumental) and referral of the
	establish a				patient to a doctor for
	diagnosis				consultations
					AI PC-3.3. Analyzes the patient
					examination results and, if necessary,
					justifies and plans the scope of
					additional research.
					AI PC -3.4. Interprets and analyzes
					the results of collecting information
					about the patient's disease, data
					obtained during laboratory and
					instrumental examinations and during
					consultations with specialist doctors,

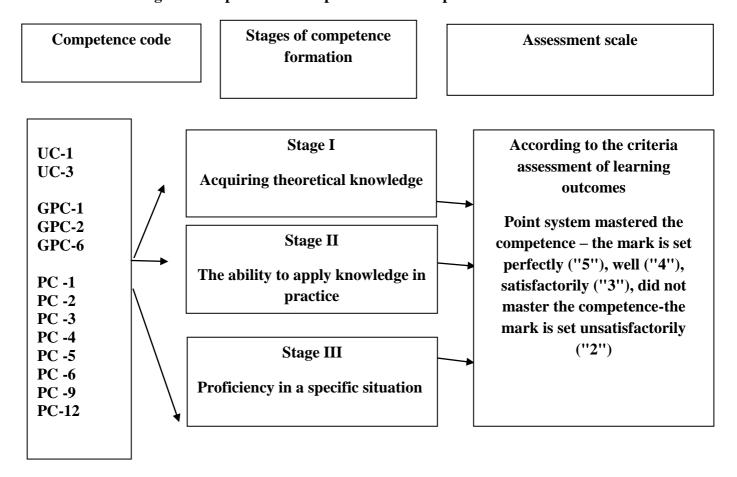
						and, if necessary, justifies and plans the scope of additional research.  AI PC-3.5.Provides early diagnosis of internal organ diseases. Diagnosis is based on the current International Statistical Classification of Diseases and Related Health Problems (ICD).  AI PC-3.6.Conducts differential diagnostics of internal organ diseases from other diseases
9	PC-4. Capable	of	Rules for transporting an infectious patient to a	Provide medical care to patients with infectious	Methods of providing medical care to patients	AI PC -4.1. Determines medical indications for the provision of
	determining		hospital, rules for	diseases in outpatient and	with infectious diseases in	emergency, including specialized
	indications f	or	isolation during	inpatient settings	accordance with clinical	emergency, medical care
	hospitalization,		hospitalization of		guidelines (treatment	AI PC -4.2.Refer the patient for
	indications f	or	patients,		protocols)	specialized medical care in an
	emergency,		Features of organizing			inpatient setting or in a day hospital
	including		work with patients with			setting if there are medical indications
	specialized		HIV infection.			in accordance with the current
	emergency,		Features of the			procedures for providing medical care,
	medical care		organization and scope			clinical guidelines (treatment
			of work of an outpatient			protocols) on issues of providing
			physician when working with infectious diseases			medical care, taking into account the standards of medical care
			patients.			AI PC-4.3.Uses medical devices in
			Medical indications for			accordance with current procedures
			provisionEmergency			for the provision of medical care,
			medical care, including			clinical guidelines (treatment
			specialized emergency			protocols) on issues of providing
			medical care, indications			medical care, care taking into account
			for specialized medical			the standards of medical care
			care in inpatient or day			

10	PC-5. Able to prescribe treatment to patients	hospital settings. Procedures for providing medical care in accordance with clinical guidelines (treatment protocols).  Clinical picture, complications of various infectious diseases.  Procedures for providing medical care to patients with infectious diseases in accordance with clinical guidelines (treatment protocols)	Draw up a treatment plan for the patient taking into account the diagnosis, age of the patient, clinical picture of the disease, presence of complications, concomitant pathology, in accordance with current procedures for the provision of medical care, clinical recommendations (treatment protocols)	Ability to prescribe treatment based on the clinical situation	treatment plan for the patient taking into account the diagnosis, age of the patient, clinical picture of the disease, presence of complications, concomitant pathology, in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on issues of providing medical care, taking into account the standards of medical care.  AI PC -5. 2. Prescribes medications, medical devices, and therapeutic nutrition taking into account the diagnosis, age, and clinical picture of the disease in accordance with current
	DC (				
1	PC-6. Capable of monitoring the	Essential medications, medical devices, nutritional supplements	To evaluate the effectiveness and safety of prescribed complex	Methodology for conducting controlthe effectiveness and safety of	AI PC-6.1. Evaluates the efficacy and safety of drugs, medical devices, nutritional supplements, and other

1	effectiveness and	and other treatments used	therapy for patients with	the therapy	treatment methods.
	safety of the	for patients with	infectious diseases		AI PC -6.2. Takes into account the
	therapy being	infectious diseases			pharmacodynamics and
	administered				pharmacokinetics of the main groups
					of drugs, prevents the development of
					adverse drug reactions, and corrects
					them if they occur.
12	PC-9.	Current regulatory legal	<u> </u>	Methodology for	AI PC 9.1. Organizes and conducts
	C a p o n	acts and other documents	$\mathcal{C}$	conducting dispensary	medical examinations taking into
	Tocarrying out	necessary for organizing	with infectious diseases,	observation of patients	account age, health status, and
	preventive medical	a plan for dispensary	including chronic ones	with infectious diseases	profession in accordance with current
	examinations ,	observation of patients			regulatory legal acts and other
	dispensaryand	with chronic infectious			documents.
	implementation of	diseases			
	dispa nsernogo				
	observationsfor				
	patientswith s h e r.				
	misesass				
13	PC -10.	Current regulatory legal		Conducting sanitary and	
	Capable of	acts and other documents	anti-epidemic measures	anti-epidemic measures	anti-epidemic measures in the event of
	conducting and	required for			an outbreak of infection.
	monitoring the				
	effectiveness of				
	preventive				
	measures and				
	promoting a				
	healthy lifestyle				

14	PC-12.	Medical documentation,	Fill out medical	Methodology for	AI PC -12.1 .Completes medical
	Ready to maintain	including the structure	documentation,	filling out a medical	documentation, including
	medical records,	of the medical history.	including in electronic	history	electronically
	including in	The concept of personal	form		AI PC -12.2 .Works with personal
	electronic form	data of patients and			data of patients and information
		medical confidentiality			constituting a medical secret
					AI12.3. Prepares documents when
					referring patients for hospitalization,
					consultation, spa treatment, and
					medical and social examination.

## 1.9. Stages of competence development and descriptions of assessment scales



## 2. Structure and content of practice

## 2.1. Scope of practice

Scope of practice	Total hours
Total labor intensity of practice in hours, total	432
Labor intensity in hours of the Module "Infectious diseases in the practice of a primary care physician"	36
Total workload in credit units, total	12
Type of intermediate assessment	Credit with grade

## **2.2. Type of practice:** industrial.

Industrial internship is a mandatory part of the curriculum, directly focused on students' professional and practical training. During the program, students are encouraged to master a set of required practical skills.

The internship involves working with patients and documentation in primary healthcare. During the internship, the student must

#### know:

- features in the methodology of collecting and evaluating the patient's life history, anamnesisdiseases, allergy history , vaccination, epidemiological historypatient with infectious diseases
- peculiarities methods in spection patient Within fectious disease
- modernmethodsmedicinalAndnon-drugtherapyinfectiousdiseasesVoutpatientconditionsVin accordanceWithcurrentclinicalrecommendations(protocolstreatment),ordersrenderingmedicalhelpAnd taking into accountstandardsmedicalhelp
- specific Andnonspecific prevention in fectious diseases Vout patient conditions
- rulesconductingsanitary and anti-epidemic(preventive)eventsVcaseoccurrence of the outbreakinfections

rules design V medical organizations, providing medical outpatient help, medical documentation, V volumen umber Velectronic view

#### be able to:

- installcontactWithpatient
- collection of life history, medical history, allergy history, vaccinations, epidemiological anamnesis
- inspectionpatientAndassessmentsclinicalpaintingsatinfectious diseases
- to justifynecessityAndvolumelaboratoryAnd(or)instrumentalexaminations, andAlsointerpret the receivedresults
- to justifynecessitydirectionsonhospitalization
- to make upplantreatment(diet therapy,medicinalAndnon-drugtherapy) of infections, taking into account the patient's age and concomitant diseases, diagnosisand the clinical picture of the disease and in accordance with current clinical recommendations (treatment protocols), procedures for providing medical care and withtaking into accountstandards of medicalhelp
- choose a plan of preventive and anti-epidemic measures in the familystruggleWithdrifts and distribution infections
- fill outmedicaldocumentation, Vvolumenumber Velectronic view

# 2.3. Criteria for assessing students' knowledge.

The assessment of learning outcomes is carried out in accordance with the "Regulations on the system for assessing the learning outcomes of students of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy of the Ministry of Health of the Russian Federation".

The basis for determining the level of knowledge, skills, and abilities are the assessment criteria - completeness and correctness:

- correct, precise answer;
- correct, but incomplete or inaccurate answer;
- incorrect answer;
- no answer.

When assigning marks, the classification of errors and their quality are taken into account:

- -gross errors;
- similar errors;
- minor errors:
- shortcomings.

## Criteria for assessing the theoretical part

- "5" for the depth and completeness of mastery of the content of the educational material, in which the student can easily navigate, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present their answer competently and logically.
- "4" the student has fully mastered the educational material, is oriented in it, and expresses his answer competently, but the content and form contain some inaccuracies.
- 3- the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, and does not know how to express and justify his judgments.
- "2"- the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and the secondary, makes mistakes in defining concepts, distorts their meaning, and presents the material in a disorderly and uncertain manner.

## Test control evaluation criteria

- "5" when testing, up to 10% of incorrect answers are allowed.
- "4" allows up to 20% of incorrect answers during testing.
- "3" allows up to 30% of incorrect answers during testing.
- "2" during testing, more than 30% of incorrect answers are allowed.

Criteria for assessing the practical part

- "5" the student has fully mastered the practical skills and abilities provided for in the work program of industrial practice.
- "4" the student has mastered the practical skills and abilities provided for in the work program of industrial practice, but allows for some inaccuracies.
  - "3" the student has only some practical skills and abilities.
- "2" the student has only some practical skills and abilities and performs them with gross errors.

#### Interim assessment (test lesson) on a five-point scale

The midterm assessment is conducted by a practice commission consisting of a course supervisor from the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy and a practice supervisor from a medical organization.

- "5" (excellent) for the depth and completeness of the student's understanding of the course material, which the student navigates easily, for their ability to connect theoretical and practical questions, express and justify their judgments, and present their answers clearly and logically; Allows up to 10% incorrect answers during testing. The practical skills and abilities required by the internship program have been fully mastered.
- "4" good the student has fully mastered the course material, is familiar with it, and presents answers clearly, but the content and format contain some inaccuracies; during testing, the student makes up to 20% incorrect answers. The student has fully mastered the practical skills and abilities required for the course, but makes some inaccuracies.
- "3" (satisfactory) the student has mastered the knowledge and understanding of the main concepts of the course material, but presents it incompletely and inconsistently, and is unable to express and justify their judgments; during testing, the student makes up to 30% incorrect answers. The student possesses only some practical skills and abilities.
- "2" (unsatisfactory) the student has a fragmented and unsystematic knowledge of the course material, is unable to distinguish between essential and non-essential concepts, makes errors in defining concepts, distorts their meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% incorrect answers during testing. The student performs practical skills and abilities with significant errors.

# 3. Logistics and educational support for the internship

# 3.1. Primary Literature

1	Yushchuk, N. D. Infectious diseases: textbook	http://www.studmedlib.ru/book/IS
	/ edited by Yushchuk N. D., Vengerov Yu. Ya.	BN9785970453476.html
	- Moscow: GEOTAR-Media, 2020 704 p	
	ISBN 978-5-9704-5347-6 Text: electronic	
	(date accessed: 05.05.2021) Access mode:	
	by subscription.	

# 3.2. Further reading

2	Luchchev, V. I. Atlas of infectious diseases /	http://www.studmedlib.ru/ru/book/I
	Ed. V. I. Luchchev, S. N. Zharov, V. V.	SBN9785970428771.html
	Nikiforov - Moscow: GEOTAR-Media, 2014.	
	- 224 p ISBN 978-5-9704-2877-1 Text:	
	electronic (date accessed: 12.05.2021)	
	Access mode: by subscription.	
3	Infectious diseases: national guidelines /	http://www.studmedlib.ru/book/IS
	Yushchuk N. D Moscow: GEOTAR-Media,	BN9785970461228.html
	2021 1104 p. (Series "National Guidelines")	
	- ISBN 978-5-9704-6122-8 Text: electronic	
	(date accessed: 05.05.2021) Access mode:	
	by subscription.	
4	.Yushchuk , N. D. Infectious diseases. Guide	http://www.studmedlib.ru/book/IS
	to practical classes: teaching aid / edited by N.	BN9785970460962.html
	D. Yushchuk, E. V. Volchkova, Yu. V.	
	Martynov Moscow: GEOTAR-Media, 2021.	
	- 720 p.: ill 720 p ISBN 978-5-9704-6096-	
	2 Text: electronic (accessed: 05.05.2021)	
	Access mode: by subscription.	
5	Epifanov, V. A. Medical and social	http://www.studmedlib.ru/book/IS
	rehabilitation after infectious diseases / V. A.	BN9785970459157.html
	Epifanov, N. D. Yuschuk, A. V. Epifanov [et	
	al.] Moscow: GEOTAR-Media, 2020 560	
	p ISBN 978-5-9704-5915-7 Text:	
	electronic (date of receipt: 05.05.2021)	
	Access mode: by subscription.	
6	Yushchuk, N. D. Infectious diseases:	http://www.studmedlib.ru/book/IS
	syndromic diagnostics: study guide / edited by	BN9785970456033.html
	N. D. Yushchuk, E. A. Klimova Moscow:	
	GEOTAR-Media, 2020 176 p 176 p	
	ISBN 978-5-9704-5603-3 Text: electronic	
	(date accessed: 05.05.2021) Access mode:	
	by subscription.	

# 3.3. Educational and methodological support for practice prepared by the department staff

- 1. "Helminthiases of the Far East (rare observations)". For biologists, parasitologists, infectious disease specialists, therapists, epidemiologists, students of medical and biological faculties / edited by Chertov A.D., Figurnov V.A., Podolko R.N., Bliznets O.I. Blagoveshchensk: Publisher: OOO "Poli-M" 2012. 125 p.
- 2. "Preventive and anti-epidemic measures for helminthiases." Methodological development / edited by Marunich N.A., Mateishen R.S. Blagoveshchensk, 2015. 119 p.
- 3. "Bacterial Meningitis and Meningoencephalitis." A textbook for students studying in the main professional educational programs of higher education specialist programs in the following specialties: General Medicine, Pediatrics, edited by P.K. Soldatkin. Blagoveshchensk: 2016. 85 pages.
- 4. "Salmonellosis". Textbook / edited by Gavrilov A.V., Marunich N.A., Figurnov V.A. Blagoveshchensk, 2016. 43 p.
- 5. Typhoid fever. Paratyphoid fever A, B and C. Study guide / edited by Gavrilov A.V., Mateishen R.S., Soldatkin P.K. Blagoveshchensk, 2016. 58 p.
- 6. "Hemorrhagic fever with renal syndrome in the Amur region (Features of epidemiology, clinical presentation, diagnostics, treatment)." Study guide / edited by Figurnov V.A., Gavrilova A.V., Marunich N.A. Blagoveshchensk, 2016. 109 p.
- 7. Visualized situational tasks in the discipline "Infectious diseases". Study guide / edited by Gavrilov A.V., Arsenova T.V. Blagoveshchensk, 2016. 97 p.
- 8. "Characteristics of the clinical course of acute intestinal infections in adults and children." Study guide / edited by P.K. Soldatkin. Blagoveshchensk, 2016. 65 p.
- 9. "Epidemiological characteristics, clinical presentation, treatment, preventive and anti-epidemic measures for anthroponoses with the fecal-oral transmission mechanism." Methodological recommendations / edited by Marunich N.A., Mateishen R.S. Blagoveshchensk, 2016. 128 p.
- 10. "Organization and implementation of anti-epidemic measures in emergency situations among the population." Study guide. / edited by Mateishen R.S., Gavrilov A.V., Marunich N.A. Blagoveshchensk, 2017. 71 p.
- 11. "Hemorrhagic fever with renal syndrome in the Amur region (epidemiological, clinical, diagnostic, and treatment features)." Study guide / edited by Gavrilov A.V., Figurnov V.A., Marunich N.A. Blagoveshchensk, 2017. 109 p.
- 12. "Viral Hepatitis." A textbook edited by A.V. Gavrilov, N.A. Marunich, R.S. Mateishen , A.V. Zotova. Blagoveshchensk: 2018. 79 p.
- 13. "Dysentery." A textbook edited by A.V. Gavrilov, R.S. Mateishen , P.K. Soldatkin. Blagoveshchensk: 2018.  $26\,p.$
- 14. "Tick-borne encephalitis." A textbook edited by A.V. Gavrilov, N.A. Marunich, and R.S. Mateishen . Blagoveshchensk: 2018. 36 p.
- 15. "Malaria". Textbook edited by A.V. Gavrilova, N.A. Marunich, R.S. Mateishena, A.V. Zotova Blagoveshchensk: 2018. 34 p.
- 16. Tables and figures for general and special sections (by groups of infections).
- 17. Archival case histories of rare infections.
- 18. A set of diagnostic, therapeutic and prophylactic drugs for various infectious diseases.

## Multimedia materials on electronic media (CD, DVD) scientific library

- 1.N.D. Yushchuk, Yu.Ya. Vengerov "Infectious diseases", "GEOTAR-Media", 2011, 691 p.
- 2. V.I. Pokrovsky "Infectious diseases and epidemiology" 3rd ed., corrected and supplemented, M., 2013, 1088 p.

- 3. V.I. Luchsheva, S.N. Zharova, V.V. Nikiforova "Atlas of Infectious Diseases", "GEOTAR-Media", 2014, 224 p.
- 4. N.D. Yushchuk "Infectious diseases" National guidelines, 2010, 1045 p.
- 5.Standards of medical care (information system). M.: GEOTAR-Media, 2008.

## At the department (CDs)

- 1. Plague
- 2. HIV infection
- 3. Anthrax
- 4. Cholera
- 5. Sepsis
- 6. Dysbacteriosis
- 7. Leptospirosis
- 8. Botulism
- 9. Erysipelas
- 10. Meningococcal infection
- 11. Malaria
- 12. Tetanus
- 13. Viral hepatitis A, B, C
- 14. Salmonellosis
- 15. Chlamydia
- 16. Rickettsiosis: epidemic typhus. Tick-borne rickettsiosis
- 17. Diphtheria
- 18. Adenovirus infection
- 19. Rabies
- 20. Helminthiasis
- 21. Hemorrhagic fevers
- 22. Typhoid fever and paratyphoid fever
- 23. Acute dysentery

# Videos and photographs used in teaching students (prepared by department staff) Videos:

- 1. Gastric lavage technique
- 2. First aid for acute laryngitis

#### **Photo materials**

- 1. Photo album "Hemorrhagic fever with renal syndrome in the Amur region (Features of epidemiology, clinical presentation, diagnosis, and treatment)"
- 2. Photo album "Helminthiases of the Amur Region"
- 3. Visualized situational tasks on the subject "Infectious diseases"
- 4. Photo album "Some symptoms, pathomorphological findings and results of histomorphological studies in severe hemorrhagic fever with renal syndrome (HFRS)"
- 5. Photo album "Symptoms and pathological findings in severe hemorrhagic fever with renal syndrome"

# List of albums, stands, tables, tablets, handouts used in training (prepared by department staff) overhead films .

- 1. Meningococcal infection.
- 2. Cholera.
- 3. Shigillosis.
- 4. Salmonellosis.
- 5. Viral hepatitis

- 6. Rickettsioses
- 7. Rabies.
- 8. HIV infection.
- 9. Herpesvirus infections.
- 10.Diphtheria.
- 11. Pseudotuberculosis.
- 12. Plague.
- 13. Anthrax.
- 14. Infectious mononucleosis.
- 15. Dengue fever.
- 16.HFRS.
- 17. Helminthiasis.

#### **Tables:**

- 1. Salmonellosis
- 2. Shigillosis
- 3. Typhoid fever
- 4. Cholera
- 5. Early and differential diagnosis of acute intestinal infections
- 6. Plague
- 7. Tularemia
- 8. Anthrax
- 9. Early and differential diagnosis of particularly dangerous infections
- 10. Diphtheria
- 11. Sore throats
- 12. Meningococcal infection
- 13. Early and differential diagnosis of diseases affecting the oropharynx
- 14. ARVI
- 15. Flu
- 16. Adenovirus infection
- 17. HIV infection
- 18. Opportunistic infections
- 19. Rickettsioses
- 20. Typhus
- 21. Early and differential diagnosis of diseases with exanthemas
- 22. Toxoplasmosis
- 23. Tetanus
- 24. Rabies
- 25. Enteral hepatitis
- 26. Parenteral hepatitis
- 27. Early and differential diagnosis of jaundice
- 28.Herpesvirus infections
- 29. Hemorrhagic fevers

## List of albums, stands, tables, tablets, handouts used in training

- 1. Tables and figures for the general and special sections (by groups of infections).
- 2. Archival medical records, extracts from medical records.
- 3. Photo album of the most common infections
- 4. Regulatory documents on the discipline.
- 5. A set of diagnostic, therapeutic and prophylactic drugs for various infectious diseases.
- 6. Computer presentations for lectures and classes.

## **Stands:**

- 1. HIV infection
- 2. Viral hepatitis
- 3.HFRS
- 4. DIC syndrome
- 5. "National calendar of preventive vaccinations"
- 6. "Disinfection"
- 7. "Basics of Disinsection" "Repellents"
- 8. "Biological weapons and means of protection"
- 9. "HIV infection prevention"
- 10. "Features of the development of the epidemiological situation for HFRS in the Amur Region"
- 11. "Natural focal infections in the Amur region"
- 12. "The epidemiological significance of rodents in the Amur region"
- 13. "Modern problems of especially dangerous infections in the world"

**Handouts:** Ultrasound of the abdominal organs, Clinical, serological, biochemical, PCR blood tests, urine tests, tasks, tests, archival medical histories, albums on the topics studied, standards for the provision of specialized care on the topics discussed.

# 3.4. Equipment used for the educational process

Item No.	List of equipment used in student training	Quantity in pieces
1	Lecture hall	1
2	Auditorium for practical classes	6
3	Computer class	1
4	Computers	5
5	Multimedia complex (laptop, projector, screen).	1
6	Chalkboards	3

# 3.5. Professional databases, information referencesystems, electronic educational resources

No.	Nameresource	Descriptionresource	Access	Addressresource				
p. p								
	Electronic librarysystems							
1.	"Student Consultant" Electronic Library of the Medical University	For students and faculty of medical and pharmaceutical universities. Provides access to electronic versions of textbooks, teaching aids, and periodicals.	Library, individual access	http://www.studmedlib.ru/				
2.	"Doctor's Consultant" Electronic Medical Library.	Materials,postedVlibrarydeveloped by leadingRussianspecialistsonbasis of modernscientificknowledge(evidence-basedmedicine).  InformationpreparedWithtaking into accountpositionsscientific and practicalmedicalsociety(world, EuropeanAndRussian)Byrelevant specialty.Allmaterialspassedmandatoryindependentreviewing	library , individual access	http://www.rosmedlib.ru/cgi- bin/mb4x				
3.	PubMed	Free search system in the largest medicalbibliographic database MedLine . DocumentsmedicalAndbiological articlesfromspecialized literature,AAlsogiveslinksonfull-textarticles.	library ,freeaccess	https://pubmed.ncbi.nlm.nih.gov/				
4.	Oxford MedicineOnlin e	Oxford Press Collection of Publicationsmedical topics, uniting over 350 publications inshared resource with cross-sharing capabilitysearch. Publications include TheOxfordHandbookofClinicalMedicineAndTheOxfordTe xtbookofMedicine, electronicversionswhichconstantlyare being updated.	library , freeaccess	http://www.oxfordmedicine.co m				

<ul><li>5.</li><li>6.</li></ul>	Knowledge base onbiology human MedicalHe - linelibrary	Reference information on physiology, cellularbiology,genetics,biochemistry,immunology,pathologies. (ResourceInstitutemoleculargeneticsRAS.) Freereference books,encyclopedias,books,monographs, abstracts,English-languageliterature, tests.	library ,freeaccess library , freeaccess	http://humbio.ru/ http://med-lib.ru/
		Informationalsystems		
7.	Russianmedic alassociation	A professional internet resource. Goal: assistanceimplementation of effective professionalactivities of medical personnel. Contains the charter, personalities, structure, rules introductions, intelligence O	library ,freeaccess	http://www.rmass.ru/
8.	Web - medicine	The site presents a directory of professional medical resources, including links to the most authoritative thematic sites, magazines, societies, as well as useful documents and programs. The site is intended for doctors, students, employees medical universities And scientific institutions.	library , freeaccess	http://webmed.irkutsk.ru/
		Basesdata		
9.	Worldwideorg anizationhealt hcare	The site contains news and statistical data on countriesmembers of the World Health Organization, WHO newsletters, reports, publications and much other.	library , freeaccess	http://www.who.int/ru/
10.	Ministriesscience andhighereducatio n RussianFeder ations	Website of the Ministry of Science and Higher EducationThe Russian Federation contains news,newsletters, reports, publications and much other	library ,freeaccess	https://www.minobrnauki.gov.ru/

11.	Ministryenlighte nmentRussian Federations	Website of the Ministry of Education of the Russian Federationcontainsnews, newsletters, reports, publications and much other	library ,freeaccess	https://edu.gov.ru/
12.	Federalportal « Russianeducation	Single window access toeducational resources. This portal provides access to textbooks onto everyone industries medicine and healthcare	library ,freeaccess	http:// www. edu.ru/ http://window.edu.ru/catalog/?pr ubr = 2.2.81.1
	<u> </u>	Bibliographicbasesdata		
13.	BD" Russianmedici ne »		library , freeaccess	http://www.scsml.rssi.ru/
14.	eLIBRARY.RU	RussianinformationalportalVareassciences,technology, medicine and education, containing abstractsand full texts of more than 13 million scientific articles and publications. Electronic versions are available on the eLIBRARY.RU platform .more2000Russianscientific and technicalmagazines, Vvolume numbermore 1000 magazines Vopenaccess	library ,free access	http://elibrary.ru/defaultx. asp

15.	PortalElectron	Currently, the Electronic Library of Dissertations of the	library	http://diss.rsl.ru/?menu=disscata
	iclibrary	Russian State Librarycontains more than 919,000 full text	,freeaccess	log/
	dissertations	dissertations and abstracts		
16.	Medline.ru	Medical and biological portal for	library	
		specialists.Biomedicalmagazine.Latestupdate7February 2021	,freeaccess	http://www.medline.ru

# 3.6. Licensed and freely distributed software used in the educational process

II.	Commercial software products	
1.	MS Windows 7 Pro operating system	License number 48381779
2.	Operating system: MS Windows 10 Pro, MS Office	AGREEMENT No. 142 A dated December 25, 2019
3.	MS Office	License numbers: 43234783, 67810502, 67580703, 64399692, 62795141, 61350919
4.	Kaspersky Endpoint Security for Business Advanced	Agreement No. 977/20 dated 12/24/2020
5.	1 C: PROF University	LICENSE AGREEMENT No. 2191 dated October 15, 2020
6.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated November 11, 2020
II. Fre	ely distributed software	
1.	Google Chrome	Freely distributed Distribution Terms: <a href="https://play.google.com/about/play-terms/index.html">https://play.google.com/about/play-terms/index.html</a>
2.	Yandex Browser	Freely distributed License Agreement for the Use of Yandex Browser Software https://yandex.ru/legal/browser_agreement/
3.	Dr.WebCureIt!	Freely distributed License Agreement: https://st.drweb.com/static/new- www/files/license_CureIt_ru.pdf
4.	OpenOffice	Freely distributed License: <a href="http://www.gnu.org/copyleft/lesser.html">http://www.gnu.org/copyleft/lesser.html</a>
5.	LibreOffice	Freely distributed License: <a href="https://ru.libreoffice.org/about-us/license/">https://ru.libreoffice.org/about-us/license/</a>

# 3.7. Resources of the information and telecommunications network "Internet"

Websites of the Russian Ministry of Health:

Primary health care standards

https://www.rosminzdrav.en/ministry/61/22/page-979/page-983/1-standards-primary-medical-sanitary-aid

**Skilled Nursing Standards** 

https://www.rosminzdrav.ru/ministry/61/22/page-979/page-983/2-standardty-specialized-medical-aid

procedures for providing medical care to the population of the Russian Federation

https://www.rosminzdrav.ru/ministry/61/4/stranitsa-857/poryadki-okazaniya-meditsinskoy-pomoschi-naseleniyu-rossiyskoy-federatsii

Catalog of medical websites on infectious diseases

http://medagent.ru/list/view.php?id=7&page=1

<u>Library – books and textbooks on medicine http://www.booksmed.com</u>

Literature on infectious diseases http://www.webmedinfo.ru

Publishing group "GEOTAR-Media", medical literature www . geotar.ru

Medical scientific and practical portal www.lvrach.ru

Federal Electronic Medical Library - Clinical Guidelines http://www.femb.ru

## 4. Assessment Fund

# 4.1. Examples of test tasks for intermediate knowledge assessment

Conducted on a single information and educational portal in the Moodle system. The total number of tests is 200 ( http://194.186.41.210/course/index.php?categoryid=29 ).

1. SKILLY

MONON

- 1) typhoid fever
- 2) dysentery
- 3) chickenpox
- 4) measles
- 2. LIMITED HYPEREMIA OF THE HANDS AND FEET IS CHARACTERISTIC FOR
  - 1) pseudo-tuberculosis
  - 2) measles
  - 3) infectious mononucleosis
  - 4) faces
- 3. SIGMOIDITIS SYNDROME IS MOST COMMONLY OCCURRING IN
  - 1) shigellosis
  - 2) amebiasis
  - 3) salmonellosis
  - 4) cholera

Standards of correct answers:

the correct answer is 1

# 4.2. List of practical skills that a student should possess after completing the internship

- 1. Conduct a physical examination of a patient with an infectious disease. Give assessment of the results obtained.
- 2. Draw up a program for additional examination of a specific patient

- 3. Create a treatment program for a specific patient
- 5. Provide emergency care for anaphylactic shock
- 6. Assess the degree of respiratory failure in a patient with infectious diseases of the respiratory tract.
- 8. Collect biological material (swab from the throat and nose, blood, feces, etc. ) for conducting specific laboratory tests
- 1. To substantiate the scheme of modern etiotropic, pathogenetic and symptomatic therapy in a patient with an infectious disease
- 10. Prescribe antiviral therapy to a patient with chronic hepatitis C.
- 11. Provide an interpretation of blood tests in patients with infectious diseases.
- 12. First aid for anaphylactic shock.
- 13. Methodology of bacteriological research for acute intestinal infections.
- 14. Lumbar puncture, interpretation of results.
- 15. Methodology of bacteriological examination of blood.
- 16. Methodology of serological blood testing.
- 17. Methodology for studying material for diphtheria.
- 18. Emergency prophylaxis of tetanus.
- 19. Methodology for malaria testing
- 20. Methodology for studying a "thick blood drop"

## **4.3.** List of questions for the test

- 1. Collection of epidemiological history from an infectious patient.
- 2. Clinical examination of an infectious patient.
- 3. Drawing up an algorithm for laboratory and instrumental examination infectious patient.
- 4. Technique for collecting various biological materials for bacteriological research.
- 5. Technique for collecting blood and other biological media for sterility testing.
- 6. Technique for conducting skin allergy tests and taking smears.
- 7. Technique of lumbar puncture, interpretation of cerebrospinal fluid data.
- 8. Indications, preparation, technique and evaluation criteria during the procedure rectoscopy.
- 9. Preparation of smear and thick blood film for malaria testing. Calculation level of parasitemia .
- 10. Evaluation of the results of laboratory research methods (serological methods. ELISA, immune blotting, PCR).
- 11. Assessment of hematological changes characteristic of various infectious diseases.
- 12. Assessment of acid-base balance indicators.
- 13. Interpretation of indicators characterizing the blood coagulation system in development of DIC syndrome in infectology.
- 14. Methods and techniques for rapid diagnostics of various infectious diseases diseases.
- 15. Features of collecting biological material for new coronavirus infection
- 16. Features of the treatment of erysipelas in outpatient practice
- 17. Assessment of immune status indicators in HIV infection.
- 18. Conducting etiotropic and pathogenetic treatment of an infectious patient:

determination of indications, doses, volumes, and course duration.

- 19. Method of administration of therapeutic serums and immunoglobulins.
- 20. Conducting and evaluating the results of the Bezredko test.
- 21. Technique of gastric lavage.
- 22. Conducting emergency chemoprophylaxis in contacts with various infectious diseases.
- 23. Actions of a doctor when a patient who has received animal bites seeks medical attention.
- 24. Putting on and taking off the anti-plague suit.
- 25. Actions of a physician upon identifying a patient with a suspected disease

The International Health Regulations apply (plague, cholera,

yellow fever, new coronavirus infection Covid -19).

- 26.3 filling out the necessary documentation in the outpatient clinic and drawing up a plan for examining an infectious patient
- 27. Modern methods of drug therapyAndnon-drugtherapyinfectious diseases Voutpatient conditions Vin

accordanceWithcurrentclinicalrecommendations(protocolstreatment),orderspunishmentsmedical helpAndtaking into accountstandardsmedicalhelp

- 28. Specific Andnonspecific prevention in fectious diseases Voutpatient conditions
- 29. Rulesconductingsanitary and anti-epidemic(preventive)eventsVcaseoccurrence of the outbreakinfections

## MODULE 3 "CURRENT ISSUES IN CARDIOLOGY"

## 1.2. Goals and objectives of the practice.

The purpose of the internship is to familiarize students with the work of medical organizations and the specifics of the work of medical personnel in cardiology departments, the basic principles of medical ethics and deontology, to consolidate practical skills in treatment, diagnosis of patients and provision of emergency care, to acquire skills in health education and educational research work,

formation of knowledge and modern possibilities for diagnosis and treatment of cardiovascular diseases.

## **Practice objectives:**

- 1. To promote the development of professional skills in examining a patient with acute cardiovascular pathology, substantiating his clinical diagnosis and providing emergency medical care taking into account the identified clinical syndromes
- 2. To consolidate knowledge of the physiological features of the cardiovascular system in acute cardiovascular conditions
- 3. Learn to create a patient examination plan in an emergency situation that will allow you to quickly and effectively clarify the diagnosis and choose the correct treatment strategy.
- 4. Learn to quickly draw up an algorithm for treating a patient in an emergency and implement all necessary measures with the help of nursing staff.
- 5. To consolidate knowledge of changes in ECG and laboratory parameters in acute cardiovascular events
- 6. Correctly interpret the results of the main methods of functional and laboratory examination of cardiac patients
- 7. Formulate an adequate diagnosis and create a correct algorithm for emergency care based on a physical examination and additional diagnostic methods
- 8. Correctly assess the dynamics of the patient's condition against the background of the treatment and adjust the tactics of further measures

# 1.3. The place of practice in the structure of the main professionaleducational programhigher education

In accordance with the Federal State Educational Standard of Higher Education (2020), the "Current Issues in Cardiology" module of the "General Medical Practice" industrial practice course is part of the core component, Block 2. The total workload is 36 hours and is completed in the 11th semester of the sixth-year student. Assessment is by credit and grade in the 11th semester.

## 1.4. Forms of practice control.

Intermediate control is used as a form of monitoring the completion of practical training, including testing, control of theoretical knowledge, and control of the acquisition of practical skills.

## 1.5. Internship reporting forms.

Industrial practice diary, calendar schedule for completing the internship.

## 1.6. Requirements for students.

To master the practiceknowledge, skills and abilities are required, formed by previous disciplines:

## Latin

**Knowledge:** basic medical and pharmaceutical terminology in Latin.

**Skills:** be able to apply knowledge for communication and obtaining information from medical literature and medical documentation.

**Skills:** applies medical and pharmaceutical terminology in Latin in professional activities

# Biochemistry. Bioinorganic and biophysical chemistry in medicine

**Knowledge:** blood composition, biochemical constants of blood, hormones, buffer systems, hemoglobin oxygenation factors, erythrocyte metabolism.

**Skills:** analyze the contribution of biochemical processes to the functioning of organs and the cardiovascular, respiratory, digestive, urinary, and hematopoietic systems; interpret the results of the most common laboratory diagnostic methods to identify disorders in diseases of internal organs and occupational diseases.

**Skills:** possess theoretical understanding of organic chemistry, knowledge of the composition, structure, and properties of organic substances—representatives of the main classes of organic compounds; possess the ability to apply these concepts in professional activities.

## **Biology**

**Knowledge:** the laws of genetics and its importance for medicine; patterns of heredity and variability in individual development as the basis for understanding the pathogenesis and etiology of hereditary and multifactorial diseases; the biosphere and ecology, the phenomenon of parasitism and bioecological diseases.

**Skills:** analyze patterns of heredity and variability in the development of diseases of internal organs and occupational diseases.

**Skills:** possess skills in a range of activities aimed at maintaining and improving public health, including the development of a healthy lifestyle, the prevention of the occurrence and/or spread of diseases, their early diagnosis, the identification of the causes and conditions of their occurrence and development, as well as aimed at eliminating the harmful effects of environmental factors on health; readiness to collect and analyze complaints of patients with hereditary diseases, their medical history, the results of examination, laboratory, instrumental,

pathological and other studies in order to identify the cause, condition or establish the presence or absence of a disease; readiness for educational activities to eliminate risk factors and develop healthy lifestyle skills.

## Anatomy

**Knowledge:** anatomical and physiological features of the respiratory, cardiovascular, digestive, and hematopoietic systems.

Skills: analyze age-gender characteristics of the structure of organs and systems.

Skills: knowledge of basic anatomical terms, medical anatomical

conceptual apparatus; knowledge of the anatomy and topography of organs, systems and organ apparatuses, details of their structure and basic functions; the ability to clearly navigate the complex structure of the human body, accurately and precisely locate and determine the location and projections of organs and their parts on the body surface, possess the ability and readiness to analyze the patterns of functioning of individual organs and systems, use knowledge of anatomical and physiological principles, basic methods of clinical and immunological examination and assessment of the functional state of the body of an adult and adolescent for the timely diagnosis of diseases and pathological processes.

## Normal physiology

**Knowledge:** the physiology of the cardiovascular, digestive, urinary, respiratory and hematopoietic systems in the norm.

**Skills**: analyze the significance of regulation of biological processes in the human body on the functioning of the cardiovascular, digestive, urinary, respiratory, and hematopoietic systems.

**Skills:** methods; skills for interpreting the obtained results and formulating conclusions; methods for assessing the main morpho-functional indicators of an adult, methods that allow for the identification of existing violations of growth and development processes.

# Pathophysiology, clinical pathophysiology

**Knowledge:** morphological changes in body tissues in pathologies of the cardiovascular, respiratory, digestive, urinary and blood systems.

**Skills:** determine the contribution of pathophysiological processes to the development of diseases of internal organs.

**Skills:** skills in analyzing the functioning of individual organs and systems in health and disease; basic methods for assessing the functional state of the human body; skills in analyzing and interpreting the results of modern diagnostic technologies; skills in the pathophysiological analysis of clinical syndromes.

## **Immunology**

**Knowledge:** types of immunity, regulation of the immune response, causes of immunopathological conditions, clinical manifestations of immunopathology, basic methods for assessing immune status and principles of its assessment, indications for the use of immunotropic therapy.

**Skills:** identify syndromes and symptoms of diseases associated with immune system disorders, prescribe a clinical and immunological examination, formulate an immunological diagnosis, prescribe immunocorrective therapy and preventive measures to prevent diseases of the immune system.

**Skills:** algorithm for establishing a preliminary immunological diagnosis with subsequent referral to an allergist-immunologist; collecting an immunological and allergological anamnesis, analyzing and interpreting the results of laboratory indicators for assessing the immune system using tests;

## **Pharmacology**

**Knowledge**: pharmacokinetics, pharmacodynamics, side effects of various drugs on the body **Skills:** write prescriptions for prescribed medications, know the indications and contraindications for their use.

**Skills:** algorithms for selecting medications based on their pharmacokinetics, for patients with various nosological entities; cardiovascular diseases, algorithms for selecting medications based on their primary and secondary effects, and the effects of their combined use in a given pathological process; skills in providing advisory assistance to the population on issues of taking medications, taking into account the morphofunctional characteristics and physiological state of the human body, dosage, and storage conditions.

## Propaedeutics of internal diseases

**Knowledge:** collection of complaints, anamnesis, objective methods of examination of patients (palpation, percussion, auscultation).

**Skills:** conduct anamnestic and physical examination, identify the main syndromes and symptoms of diseases of internal organs.

**Skills:** possess the skills of questioning and physical examination in diseases of the respiratory, cardiovascular, digestive, urinary, hematopoietic, endocrine systems and in diseases of the joints and connective tissue; technique of general medical methods of examination of patients with diseases of the respiratory system, cardiovascular system, gastrointestinal tract, hepatobiliary system, excretory system, endocrine system, hematological system, in diseases of the connective system and allergic diseases; skill in diagnosing pneumonia, bronchial asthma, myocardial infarction, hepatitis, etc. based on the ability to interpret the results of chest X-ray, ECG, gastroscopy, blood, stool, urine tests and other studies studied during the course of the discipline of propaedeutics of internal diseases.

## Public health and healthcare, health economics

**Knowledge:** fundamentals of the Russian Federation legislation on public health protection, key regulatory and technical documents; population health indicators, factors shaping human health (environmental, professional, natural and climatic, endemic, social, epidemiological, psychoemotional, professional, genetic).

**Skills:** plan, analyze, and evaluate the quality of medical care, the health status of the population, and the impact of environmental and occupational factors; calculate medical statistics.

**Skills:** social-hygienic and clinical-statistical research methods to study the health status of the population, the volume and quality of medical care from the standpoint of evidence-based medicine; methods of statistical analysis of indicators and assessment of population health; methods of planning the activities of medical organizations;

## Pathological anatomy, clinical pathological anatomy

**Knowledge:** etiology, pathogenesis, morphogenesis, pathomorphosis of disease, principles of disease classification; structural and functional bases of diseases and pathological processes; causes, mechanisms of development and outcomes of typical pathological processes.

**Skills:** visually assess and record changes in the organs and tissues of a corpse, substantiate the nature of the pathological process and its clinical manifestations; provide an opinion on the cause of death and formulate a pathological diagnosis;

**Skills:** the ability to compare morphological and clinical manifestations of diseases, methods of clinical and anatomical analysis of autopsy, study of biopsy and surgical material.

## **Emergency conditions in therapy**

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of emergency conditions in therapy.

**Skills:** diagnose an urgent condition under the main therapeutic conditions, formulate and justify a clinical diagnosis, conduct a differential diagnosis and provide emergency care.

**Skills:** master survey methods (questioning, collecting objective and subjective information) information) for the purpose of diagnosis and differential diagnosis of the main clinical syndromes of emergency conditions in therapy (cardiology); an algorithm for implementing the main medical diagnostic and therapeutic measures in emergency conditions in therapy; assessing the severity of the patient's condition: determining the scope of first and emergency medical care and providing it; identifying indications for urgent or planned

hospitalization; drawing up a treatment plan; identifying possible complications of drug therapy; adjusting the treatment plan in the absence of an effect or the development of complications.

## **Faculty therapy**

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of major diseases of the respiratory, cardiovascular, digestive, urinary and hematopoietic systems and occupational diseases.

**Skills:** formulate and justify a clinical diagnosis, prescribe an examination and treatment plan for the main therapeutic diseases, diagnose an urgent condition and provide emergency care.

**Skills:** algorithm for physical examination of a medical patient, methods for assessing the identified changes in organs and systems, algorithm for paraclinical examination of a patient with major cardiac diseases, assessment of the results of additional (laboratory and instrumental) examination methods when working with a patient, algorithm for treatment (medicinal and non-medicinal) of the most common medical diseases that do not require emergency care, methods for emergency diagnosis of urgent conditions, methods for conducting cardiopulmonary resuscitation on a simulator, algorithm for providing emergency care for urgent conditions in an internal medicine clinic.

# 1.7 Interdisciplinary links with subsequent disciplines/practices

te	Name of subsequent disciplines	Module "Current Issues in Cardiology"
m No	disciplines	
	Outpatient therapy	+
1.		
	Clinical pharmacology	+
2.		
	Anesthesiology, resuscitation,	+
3.	intensive care	
	Differential diagnostics in	+
.4	cardiology	

# 1.8. Requirements for the results of the internship

Mastering the module Current Issues in Cardiologyis aimed at developing the following competencies: universal (UC) UC -1, 3; general professional (GPC) GPC -1, 4, 7, 11; and professional competencies (PC): PC -1, 2, 3, 4, 5, 6, 10, 12, 14.

No.		Code and name of the competency	As a result of studying the academic discipline "Clinical Pulmonology", the student must:			
p/p	of competence	achievement indicator	Know	Be able to	To own	
			Universal competencies			
1	UC -1. Capable of critically analyzing problematic situations based on a systems approach and developing an action strategy.	AI UC-1.3. Applies systems analysis to resolve problematic situations in the professional field.  AI UC-1.5. Critically evaluates the reliability of information sources and works with conflicting information from different sources.	The main historical stages in the development of clinical cardiology, the subject and objectives of the discipline, the relationship with other medical, biological and medical disciplines; the main terms and concepts used in clinical cardiology; principles of using logical and methodological tools for critically evaluating modern concepts of a philosophical and social nature in clinical cardiology	To characterize the stages of development of clinical cardiology as a science and its role in the present stage; to evaluate the levels of organization of the human cardiovascular system; to develop and argue a strategy for solving problematic situations based on a systemic and interdisciplinary approach in clinical cardiology,	The ability to analyze the significance of clinical cardiology at the present stage; systemic analysis of the obtained data to resolve problematic situations in the professional sphere; methods for developing and justifying strategies for solving problematic situations based on a systemic and interdisciplinary approach in clinical cardiology; a critical approach to the evaluation and reliability of information sources, and methods of working with different information obtained from different sources	

2	UC -3. Able to organize and manage the work of a team, developing a team strategy to achieve the set goal	tolerant of social, ethnic, religious, and cultural differences.	Basic principles of tolerant perception of social, ethnic, religious and cultural differences when working in a team; skills for effective and conflict-free communication in a team	communicate effectively and without conflict	The ability to develop a team strategy to achieve goals, including professional ones; methods of effective and conflict-free communication within a team; tolerance of social, ethnic, religious and cultural differences
		Gen	eral professional competen	cies	
			1=		
3	GPC-1. Able to implement moral and legal norms, ethical and deontological principles in professional activities	AI GPC-1.1. Conducts professional activities in accordance with ethical standards and moral principles.  AI GPC-1.2. Organizes professional activities, guided by healthcare legislation, knowledge of medical ethics, and deontology.  AI GPC-1.3. Skills in expressing an independent point of view, analytical and logical thinking, public speaking, moral and ethical argumentation, conducting discussions and roundtables, and understanding the principles of medical deontology and medical ethics.	aspects of the relationship "doctor-doctor", "doctor-patient"; principles of effective and conflict-free communication with patients; methods of effective communication between doctor and patient in difficult situations; Basic requirements for a	Conductphysical examination of the patient taking into account ethical and deontological what principles; communicate effectively and without conflict with patients, relatives, and colleagues; build effective relationships with patients; maintain confidentiality; and conduct discussions in accordance with the principles of moral and ethical reasoning.	Have communication skills with the patient and relatives colleagues, junior staff; identify problems in a patient's access to a doctor; methods of verbal and nonverbal communication with the patient; principles of confidentiality in professional activities and communication with colleagues; continuous improvement of communication skills in the professional activities of a physician
4	GPC-4. Capable of	AI GPC-4.1. Utilizes modern medical technologies, specialized		Apply modern medical technologies, specialized	The ability to use modern medical technologies,

	using medical	equipment and medical devices,	use of modern medical	equipment, medical devices,	specialized equipment,
	devices as	disinfectants, and medications,	technologies , medical	and medications in	medical devices, drugs and
	prescribed by	including immunobiological and	devices, drugs,	accordance with the	their combinations, from the
	the medical care	other substances and their	instrumental, functional	procedure for providing	standpoint of evidence-
	procedures, as	combinations, to solve professional	and laboratory	medical care, from the	based medicine in
	well as	problems using evidence-based	examination methods in	standpoint of evidence-	cardiology; to compare the
	conducting	medicine.	cardiology; interpretation	based medicine in the field	results of additional
	patient	AI GPC-4.2. Understands the	of the results of the most	of cardiology; prescribe	examination methods
	examinations to	indications and contraindications for	common methods of	instrumental, functional, and	(instrumental, laboratory
	establish a	instrumental, functional, and	instrumental, laboratory	laboratory examination	and functional diagnostics)
	diagnosis.	laboratory examination methods,	and functional	methods; interpret the	to identify pathological
		potential complications during	diagnostics; methods of	results of instrumental,	processes;
		examinations, emergency care, and	general clinical	laboratory, and functional	methods of general clinical
		their prevention.	examination of the	diagnostic methods; conduct	examination of patients of
		<b>AI GPC-4.3.</b> Interprets the results of		a clinical examination of the	different ages;
		the most common instrumental,	principles of formulating	patient; formulate	formulation of the
	laboratory, and functional diagnostic methods, including thermometry, to		a preliminary diagnosis	preliminary diagnosis and	preliminary diagnosis and
			and clinical diagnosis in	clinical diagnosis in	clinical diagnosis according
		identify pathological processes.	cardiology according to	cardiology according to ICD	to ICD
		AI GPC-4.5. Formulates a	the ICD		
		preliminary diagnosis and a clinical			
	~~~	diagnosis according to the ICD.			
	GPC-7.	AI GPC-7.1. Selects a drug based on	Principles of drug	To select the optimal drug	The ability to prescribe the
	Capable of	its pharmacokinetic and	selection based on the	(taking into account its	optimal drug, select the
	prescribing	pharmacodynamic characteristics for	combination of its	pharmacokinetic and	preferred method of its use,
	treatment and	the treatment of patients with various	pharmacokinetic and	pharmacodynamic	taking into account the
5	monitoring its	nosological entities in outpatient and	pharmacodynamic	characteristics) and the	morphofunctional
	effectiveness	inpatient settings.	characteristics for the	preferred method of its	characteristics,
	and safety.	AI GPC-7.7. Evaluates the efficacy	treatment of patients with	administration; to identify	physiological conditions and
		and safety of drug therapy using a	various circulatory	the main and side effects of	pathological processes in
		combination of clinical, laboratory,	diseases; advantages of	drugs used in pulmonology,	diseases of the circulatory
		instrumental, and other diagnostic	the selected drug and the	taking into account the	system, and the possible

		methods.	preferred method of its administration; primary and secondary effects of drugs; morphofunctional characteristics, physiological states and pathological processes in the body of a cardiac patient when selecting a drug;	morphofunctional characteristics, physiological states and pathological processes of the human body; select over-the-counter medications and other pharmacy products taking into account the physiological conditions and pathological processes in patients with diseases of the circulatory system;	interaction of drugs with the combined use of various drugs; the ability to promptly identify side effects of drugs used in clinical cardiology
6	GPC-11. Able to prepare and apply scientific, research and production, design, organizational and managerial, and regulatory documentation in the healthcare system.	AI GPC 11.1. Applies modern methods for collecting and processing information, conducts statistical analysis of obtained data in the professional field, and interprets the results to solve professional problems.  AI GPC-11.5. Analyzes and compiles medical records and calculates qualitative and quantitative indicators used in professional activities.	Basic methodological approaches to working with educational, scientific, reference, medical literature, including the Internet (methods of collecting and processing information); algorithms and software tools for decision support during the treatment and diagnostic process in clinical cardiology methods of collecting, storing, searching, and distributing information in medical information	Independently work with educational, scientific, reference, medical literature, including on the Internet (search and select information) in the field of clinical cardiology; carry out statistical processing, analysis of the obtained data and interpret the results to solve professional problems in the field of diagnosis and treatment of diseases of the circulatory system;	methods of maintaining medical records; the main scientific methods of cognition: observation, description, measurement, experiment in the field of clinical cardiology; analysis and preparation of accounting and reporting medical documentation and methods for calculating qualitative and quantitative indicators used in clinical cardiology.

			,		
			systems;		
			methods of maintaining		
			medical records;		
			Professional competencies		
	PC-1.	AI PC -1.3. Identifies conditions	Clinical signs of	To identify clinical signs	Ability to diagnose and
	Able to provide	requiring emergency medical care.	conditions requiring	of conditions requiring	provide emergency medical
7	medical care in	AI PC - 1.4. Provides emergency	emergency medical care in	emergency medical care in	care in cardiology
/	urgent and	medical care to patients with life-	cardiology; methods for	cardiology; to provide	
	emergency	threatening conditions.	providing emergency	emergency medical care in	
	situations		medical care in cardiology	cardiology	
	PC-2.	AI PC -2 .2.Collects complaints,	Methodology for	Establish contact with the	The ability to establish
	Capable of	specifies them, highlighting the	collecting complaints	patient; collect complaints	contact and compliant
	collecting and	main and secondary ones.	(primary, secondary) from	and anamnesis of the	relationships with a patient
	analyzing	AI PC -2.5 . Collects and evaluates	a patient with a cardiac	patient with circulatory	with a circulatory disease;
	complaints, life	information about the medical	disease; method for	pathology, evaluate	collecting complaints
	history and	history, including data on past	collecting the disease	information about the	(primary and secondary),
8	medical history	illnesses, injuries and surgical	history (time of seeking	medical history, paying	disease history (onset,
	of the patient in	interventions, hereditary,	medical care, dynamics of	particular attention to	dynamics of symptom
	order to establish	professional, and epidemiological	symptom development,	concomitant diseases,	development, seeking
	a diagnosis	history.	amount of therapy	hereditary, professional,	medical help, characteristics
			administered and its	and epidemiological	and scope of therapy and its
			effectiveness), life history	history.	effectiveness).
			effectiveness), fire instory	mistory.	circuiveness).
	PC-3.	AI PC-3.1. Conducts a complete	The methodology of a	Conduct a complete	Ability to conduct
	Able to conduct a	physical examination of the patient	complete physical	physical examination of a	a complete physical
	physical	(inspection, palpation, percussion,	examination of a patient	patient with a circulatory	examination of a patient
	examination of a	auscultation) and interprets the	with a circulatory disease	disease and interpret the	with a circulatory disease
9	patient and	results.	and the interpretation of its	results; analyze and	and interpretation of its
	analyze the	AI PC -3.4. Interprets and analyzes	results; the necessity,	compare the clinical and	results;
	results of	the results of patient disease	scope, sequence of	diagnostic results obtained	refer the patient for
	additional	information collection, data	diagnostic measures and	from the examination of a	diagnostic procedures

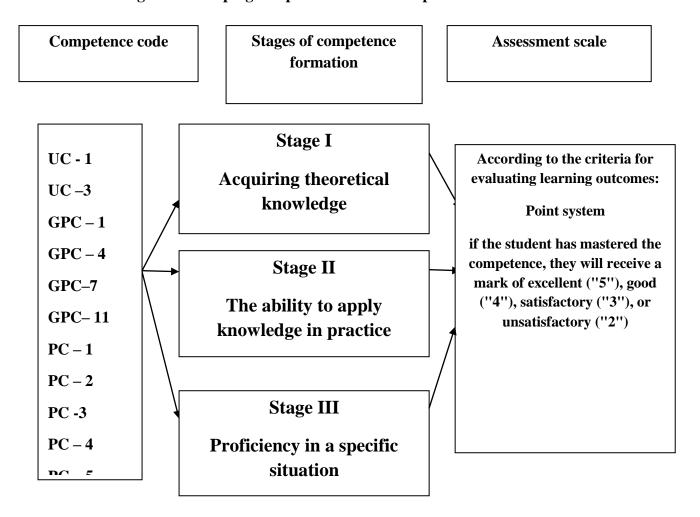
	examination methods in order to establish a diagnosis	obtained during laboratory and instrumental examinations, and during patient consultations with specialist physicians; if necessary, justifies and plans the scope of additional research.  AI PC-3.6. Conducts differential diagnostics of internal organ diseases from other illnesses.	indications for consultation with specialist doctors; the methodology for analyzing and comparing the obtained clinical and diagnostic results of examination of a patient with a circulatory disease; indications for the appointment of additional examination methods (if necessary); principles of early diagnosis, the main symptoms and syndromes of cardiac diseases; formulation of a diagnosis taking into account the current international statistical classification of diseases and related health problems (ICD);	patient with a circulatory disease; determine the indications for the use of additional examination methods;	(laboratory, instrumental), for consultation with specialist doctors; analysis and comparison of the obtained data clinical diagnostic results of examination of a patient with diseases of the circulatory system, the ability to analyze the main clinical manifestations diseases of the circulatory system, establishing a clinical diagnosis in accordance with the current International Statistical Classification of Diseases and Related Health Problems (ICD) and justifying it;
10	PC-4. Capable of determining indications for hospitalization, indications for emergency, including	AI PC-4.1. Defines medical indications for emergency medical care, including specialized emergency medical care.  AI PC-4.2. Referring a patient for specialized medical care in an inpatient setting or in a day hospital setting if there are medical	Medical indications for emergency, including specialized emergency, medical care in cardiology; medical indications for referring a patient for specialized medical care in an inpatient setting or in a	Determine medical indications for providing emergency, including specialized emergency, medical care to a patient with a cardiac condition; determine medical indications for referring a	Ability to determine medical indications for emergency, including specialized emergency, medical care in cardiology; ability to determine medical indications for referring a patient for specialized

	specialized		indications in accordance with	day hospital setting,	patient for specialized	medical care in a hospital or
	emergency,		current procedures for the provision	principles for the use of	medical care in a hospital	day hospital setting;
	medical care		of medical care, clinical guidelines	medical devices in	or day hospital setting,	principles of using medical
			(treatment protocols) on issues of	accordance with current	principles for the use of	devices in accordance with
			providing medical care, taking into	procedures for the	medical devices in	current procedures for
			account the standards of medical	provision of medical care,	accordance with current	providing medical care,
			care.	clinical guidelines	procedures for the	clinical guidelines
				(treatment protocols) for	provision of medical care,	(treatment protocols) on
				the provision of medical	clinical guidelines	providing medical care to
				care, taking into account	(treatment protocols) in	patients with cardiac
				the standards of medical	cardiology	pathology
				care in cardiology.		
	PC-5. Able	to	AI PC-5.1. Develops a treatment	Modern methods of	To draw up a treatment	The ability to develop an
	prescribe		plan for the patient taking into	application, mechanism of	plan for a patient with	individual treatment plan for
	treatment	to	account the diagnosis, age of the	action, indications and	cardiac pathology taking	a patient with cardiac
	patients		patient, clinical picture of the	contraindications for the	into account the diagnosis,	pathology, taking into
			disease, presence of complications,	prescription of drugs and	age, clinical picture of the	account the diagnosis, age,
			comorbidities, in accordance with	medical devices for	disease in accordance with	clinical picture of the
			current procedures for the provision	diseases of the circulatory	the current procedures for	disease in accordance with
			of medical care, clinical guidelines	system (taking into	the provision of medical	current procedures for the
			(treatment protocols) on issues of	account the diagnosis, age	care, clinical	provision of medical care,
11			providing medical care, taking into	and clinical picture of the	recommendations	clinical guidelines
1.1			account the standards of medical	disease) in accordance	(treatment protocols) on	(treatment protocols) on
			care.	with current procedures for	the provision of medical	issues of providing medical
			AI PC-5.3. Prescribes non-drug	the provision of medical	care, taking into account	care, taking into account the
			treatment based on the diagnosis,	care, clinical	the standards of medical	standards of medical care in
			age, and clinical presentation of the	recommendations	care in cardiology;	cardiology, prescribe non-
			disease in accordance with current	(treatment protocols) on	prescribe medications,	drug treatment for diseases
			medical care procedures, clinical	the provision of medical	medical devices, and non-	of the circulatory system
			guidelines, and standards of	care, taking into account	drug treatment for diseases	
			medical care.	the standards of medical	of the circulatory system	
			AI PC-5.4. Provides palliative care	care in cardiology;	in accordance with current	

		in collaboration with specialist physicians and other healthcare professionals.		procedures for the provision of medical care and clinical guidelines	
12	PC-6. Capable of monitoring the effectiveness and safety of the therapy being administered	AI PC-6.1. Evaluates the efficacy and safety of drugs, medical devices, nutritional supplements, and other treatment methods.  AI PC-6.2. Takes into account the pharmacodynamics and pharmacokinetics of key drug groups, prevents the development of adverse drug reactions, and corrects them if they occur.	Information on the efficacy and safety of drugs, medical devices, nutritional therapy, and other treatment methods in cardiology; pharmacodynamics and pharmacokinetics of the main groups of drugs used in cardiology	To evaluate the effectiveness and safety of the use of drugs, medical devices, therapeutic nutrition and other methods of treating patients with cardiac pathology; take into account the pharmacodynamics and pharmacokinetics of drugs used in cardiology when prescribing	The ability to evaluate the efficacy and safety of medications, medical devices, therapeutic nutrition, and other treatment methods for circulatory diseases; the ability to consider the pharmacodynamics and pharmacokinetics of medications when prescribing.
13	PC-10. Capable of conducting and monitoring the effectiveness of preventive measures and promoting a healthy lifestyle.	AI PC -10.1. Prescribes preventive measures to patients taking into account risk factors for the prevention and early detection of diseases, including socially significant diseases.	Forms and methods of educational work, preventive measures for patients taking into account risk factors for the prevention and early detection of circulatory diseases	To identify modifiable risk factors for the development of cardiovascular diseases; to prescribe preventive measures to patients in a timely manner, taking into account risk factors for the prevention and early detection of diseases of the circulatory system	The ability to conduct educational work and preventive measures for patients, taking into account the identified risk factors for the development of circulatory diseases for the prevention and early detection of pathology of circulatory diseases
14	PC -12. Ready to maintain medical records,	AI PC -12. 1. Completes medical documentation, including in electronic form AI PC -12.2. Works with personal	Rules for the preparation of medical documentation (including electronic documentation) in	Fill out medical documentation (including electronically) in cardiology-focused	Ability to complete medical documentation (including electronically) in cardiology-focused medical

	including in electronic form	data of patients and information constituting a medical secret. <b>AI PC-12.3.</b> Prepares documents for referring patients for hospitalization, consultation, spatreatment, and medical and social assessment.	cardiology-focused medical organizations; principles for working with patients' personal data and information constituting a medical secret	medical organizations; handle patients' personal data and information constituting a medical secret; prepare documents when referring patients for hospitalization, consultation, spa treatment, and medical and social assessment	organizations; ability to work with patients' personal data and information constituting a medical secret; preparation of documents when referring patients with circulatory diseases for hospitalization, consultation, spa treatment, and medical and social assessment
15	PC-14. Capable of participating in scientific research activities.	AI PC -14.2. Analyzes medical information based on evidence-based medicine.  AI PC-14.3. Introduces new methods and techniques into practical healthcare aimed at protecting the health of the adult population.	Methodology of conducting scientific research; main directions of scientific research in clinical cardiology; principles and methods of conducting scientific research, medical statistics	To take part in scientific research, analyze medical information based on evidence-based medicine, and introduce new methods into practical work aimed at protection of health of the adult population.	The ability to participate in scientific research; the ability to analyze medical information based on evidence-based medicine and implement new methods in practical work aimed at protection of adult population health

## 1.9 . Stages of developing competencies and descriptions of assessment scales



## 2. Structure and content of practice

## 2.1 Scope of practice

Scope of practice	
Total labor intensity in hours, total	432
Time required for the "Current Issues in Cardiology" Module	36
Total workload in credit units, total	12
Type of intermediate assessment	credit with grade

## 2.2. Type of practice – industrial.

Industrial internship is a mandatory part of the curriculum, directly focused on students' professional and practical training. During the program, students are encouraged to master a set of required practical skills.

## 2.3. Criteria for assessing students' knowledge .

The assessment of learning outcomes is carried out in accordance with the "Regulations on the system for assessing the learning outcomes of students of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy of the Ministry of Health of the Russian Federation".

The basis for determining the level of knowledge, skills, and abilities are the assessment criteria - completeness and correctness:

- correct, precise answer;
- correct, but incomplete or inaccurate answer;
- incorrect answer;
- no answer.

When assigning marks, the classification of errors and their quality are taken into account:

- -gross errors;
- similar errors;
- minor errors;
- shortcomings.

## Criteria for assessing the theoretical part

- "5" for the depth and completeness of mastery of the content of the educational material, in which the student can easily navigate, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present their answer competently and logically.
- "4" the student has fully mastered the educational material, is oriented in it, and expresses his answer competently, but the content and form contain some inaccuracies.
- "3" the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, and does not know how to express and justify his judgments.
- "2" the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and the secondary, makes mistakes in defining concepts, distorts their meaning, and presents the material in a disorderly and uncertain manner.

## Test control evaluation criteria

- "5" when testing, up to 10% of incorrect answers are allowed.
- "4" allows up to 20% of incorrect answers during testing.
- "3" allows up to 30% of incorrect answers during testing.
- "2" during testing, more than 30% of incorrect answers are allowed.

# Criteria for assessing the practical part

- "5" the student has fully mastered the practical skills and abilities provided for in the work program of industrial practice.
- "4" the student has mastered the practical skills and abilities provided for in the work program of industrial practice, but allows for some inaccuracies.
- "3" the student has only some practical skills and abilities.
- "2" the student has only some practical skills and abilities and performs them with gross errors.

## Interim assessment (test lesson) on a five-point scale

The midterm assessment is conducted by a practice commission consisting of a course supervisor from the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy and a practice supervisor from a medical organization.

- "5" (excellent) for the depth and completeness of the student's understanding of the course material, which the student navigates easily, for their ability to connect theoretical and practical questions, express and justify their judgments, and present their answers clearly and logically; Allows up to 10% incorrect answers during testing. The practical skills and abilities required by the internship program have been fully mastered.
- "4" good the student has fully mastered the course material, is familiar with it, and presents answers clearly, but the content and format contain some inaccuracies; during testing, the student makes up to 20% incorrect answers. The student has fully mastered the practical skills and abilities required for the course, but makes some inaccuracies.
- "3" (satisfactory) the student has mastered the knowledge and understanding of the main concepts of the course material, but presents it incompletely and inconsistently, and is unable to express and justify their judgments; during testing, the student makes up to 30% incorrect answers. The student possesses only some practical skills and abilities.
- "2" (unsatisfactory) the student has a fragmented and unsystematic knowledge of the course material, is unable to distinguish between essential and non-essential concepts, makes errors in defining concepts, distorts their meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% incorrect answers during testing. The student performs practical skills and abilities with significant errors.

## 3. Material, technical and educational support for the internship

## 3.1. Primary Literature

### 3.2. Additional literature

	MAIN REFERENCES:	
1.	1. Martynov, A. I. Internal Diseases: Vol. I.: textbook / ed. Martynova	http://www.studm
	A. I., Kobalava J. D., Moiseeva S. V Moscow: GEOTAR-Media,	edlib.ru/book/ISB
	2021 784 p ISBN 978-5-9704-5886-0 Text: electronic Access	N9785970458860
	mode: by subscription.	<u>.html</u>
2.	2. Martynov, A. I. Internal Diseases: Vol. II.: textbook / ed. Martynova	http://www.studm
	A. I. ,KobalavaJ . D. , Moiseeva S. V Moscow: GEOTAR-Media,	edlib.ru/book/ISB
	2021 704 p ISBN 978-5-9704-5887-7 Text: electronic (date of	N9785970458877
	receipt: 04.05.2021) Access mode: by subscription.	<u>.html</u>
	ADDITIONAL REFERENCES:	
1.	1. Ruksin, V. V. Emergency outpatient cardiology: a brief guide /	http://www.studm
	Ruksin V. V Moscow: GEOTAR-Media, 2018 256 p ISBN 978-	edlib.ru/book/ISB
	5-9704-4791-8 Text: electronic (date accessed: 05/21/2021)	N9785970447918
	Access mode: by subscription.	<u>.html</u>
2.	2. Belyalov, F. I. Heart arrhythmias / F. I. Belyalov 8th ed., revised	http://www.studm
	and enlarged Moscow: GEOTAR-Media, 2020 448 p ISBN	edlib.ru/book/ISB
	978-5-9704-5641-5 Text: electronic (date accessed: 05/20/2021)	N9785970456415
	Access mode: by subscription	<u>.html</u>
3.	3. Reznik, E. V. Clinical norms. Cardiology / E. V. Reznik, I. G.	http://www.studm
	Nikitin Moscow: GEOTAR-Media, 2020 448 p ISBN 978-5-	edlib.ru/book/ISB
	9704-5851-8 Text: electronic (date accessed: 05/20/2021) Access	N9785970458518
	mode: by subscription.	<u>.html</u>

4. 2. Arutyunov, G. P. Diagnostics and treatment of diseases of the heart and blood vessels / G. P. Arutyunov - Moscow: GEOTAR-Media, 2015. - 504 p. - ISBN 978-5-9704-3146-7. - Text: electronic (date accessed: 05/21/2021). - Access mode: by subscription. html

# 3.3. Educational and methodological support for practice prepared by the department staff

- 1. Sivyakova O.N., Konyuk E.F., Muzychenko L.V. Neurocirculatory dystonia. Textbook. Blagoveshchensk, 2009. 20 p.
- 2. Sivyakova O.N. Diagnostics and treatment of angina pectoris. Study guide. Blagoveshchensk, 2010. 47 p.
- 3. Landyshev Yu.S., Pogrebnaya M.V., Vakhnenko Yu.V., Dorovskikh I.E., Urazova G.E. Diagnostics and principles of treatment of congenital heart defects / Study guide, recommended by the Educational and Methodological Association for Medical and Pharmaceutical Education of Universities of Russia. Moscow-Blagoveshchensk, 2013. 128 p.
- 4. Landyshev Yu.S., Pogrebnaya M.V., Vakhnenko Yu.V., Dorovskikh I.E., Urazova G.E. Acquired heart defects. Diagnostics and treatment / Study guide, recommended by the Educational and Methodological Association for Medical and Pharmaceutical Education of Universities of Russia. Moscow-Blagoveshchensk, 2013. 109 p.
- 5. Vakhnenko Yu.V., Landyshev Yu.S., Dorovskikh I.E., Urazova G.E., Pogrebnaya M.V. Diagnostics of congenital heart defects // Amurtipograf . Blagoveshchensk. 2013. 156 p. (UMO)
- 6. Vakhnenko Yu.V. Electronic manual "Diagnostics and treatment of arterial hypertension". EIS FSBEI HE Amur State Medical Academy. 2020.
- 7. Urazova G.E. Electronic manual "Diagnostics and treatment of CHF". EIS FSBEI HE Amur State Medical Academy. 2020.
- 8. Urazova G.E. Electronic manual "Differential diagnostics of cardialgia ". EIS FSBEI HE Amur State Medical Academy. 2020.
- 7. Vakhnenko Yu.V. Electronic teaching aid "ECG diagnostics of heart rhythm disorders". EIS FSBEI HE Amur State Medical Academy. 2021.
- 8. Vakhnenko Yu.V. Electronic teaching aid "Diagnostics and treatment of chronic ischemic heart disease". EIS FSBEI HE Amur State Medical Academy. 2021.
- 9. Vakhnenko Yu.V. Electronic textbook "Myocardial infarction with ST elevation and its complications". EIS FSBEI HE Amur State Medical Academy. 2021.

Urazova G.E. Electronic manual "Diagnosis and Treatment of Infective Endocarditis". - EIS FSBEI HE Amur State Medical Academy. – 2021.

## List of albums, tables, multimedia presentations

### **Tables:**

- 1. Pulmonary embolism.
- 2. Rational combinations of antibacterial drugs.
- 3. Pickwickian syndrome.
- 4. Complications of systemic glucocorticoid therapy.
- 5. Pulmonary heart.
- 6. Clinical signs of chronic pulmonary heart disease.
- 7. Unstable angina.
- 8. Pathogenesis of myocardial infarction
- 9. Electrocardiography capabilities.
- 10. Types of ECG changes in ischemic heart disease.

- 11. Diagram of the cardiac conduction system.
- 12. Scheme for determining the position of the electrical axis of the heart.
- 13. ECG changes in myocardial infarction of different localizations.
- 14. Classification of cardiac arrhythmias.
- 15. Indications for Holter monitoring.
- 16. Dyslipidemia and its complications.
- 17. The role of ECG in the diagnosis of myocardial infarction.
- 18. Normal electrocardiogram.
- 19. Significant dates in the history of the development of electrocardiography.
- 20. ECG signs of myocardial hypertrophy.
- 21. Evaluation criteria for the exercise ECG test.
- 22. Classification of ventricular extrasystoles gradations.
- 23. Plan for analysis and preparation of a conclusion on ECG.
- 24. Differential diagnostics of large-focal and small-focal myocardial infarction.

#### **Albums:**

- 1. Pulmonary embolism.
- 2. Antibacterial drugs in tables and diagrams.
- 3. Risk factors and clinical picture of pulmonary embolism.
- 4. Pericarditis.
- 5. Aortic stenosis.
- 6. Stenosis of the left atrioventricular orifice (mitral stenosis).
- 7. Amyloidosis.
- 8. Album on the founders of medicine.
- 9. Congenital heart defects of the cyanotic type.
- 10. Treatment of pulmonary embolism.
- 11. ECG album demonstrating various cardiac rhythm and conduction disturbances.
- 12. ECG album for the diagnosis of myocardial infarction.
- 13. ECG album demonstrating hypertrophy of various parts of the heart.
- 14. Arterial hypertension.
- 15. Congenital heart defects of the pale type.

## **Multimedia presentations:**

- 1. Features of the clinical picture and difficulties in diagnosing infective endocarditis and its complications.
- 2. Features of coronary heart disease in young people.
- 3. Myocardial infarction in young people.
- 4. Infective endocarditis of the prosthetic valve.
- 5. Pericardial mesothelioma.
- 6. Myocardial ruptures.
- 7. Idiopathic pulmonary arterial hypertension.
- 8. Prevention of thromboembolic complications in artificial valves
- 9. hearts.
- 10. Surgical correction of cardiovascular pathology.

## 3.4. Material and technical base for conducting internship

Medical equipment: tonometers, thermometer, phonendoscopes, pulse oximeters, height meter, medical scales, bactericidal irradiator, emergency treatment and preventive kits. In the functional, radiological, ultrasound, laboratory diagnostics, and radiological surgery rooms of the AKB: Six-channel electrocardiograph ECG-9001K, Laser capillary blood flow analyzer LAKK-

2, Blood gas and electrolyte analyzer (equipment set), ECS-500 pacemaker, 12-channel electrocardiograph ECG-1350 NihonKohden (Japan), Nihon ECG 1550 Treadmill Stress System , Holter Heart Rate Monitoring System, INKART Cardiotechnica-04 System (ABPM) (Russia), Mindray M7 Portable Ultrasound Scanner (China), Siemens Definition AS 64-Slice MSCT X-ray Computed Tomography System (Germany), TOSHIBA Excelart Magnetic Resonance Imaging SystemVantage Atlas 1.5 Tl (Japan).

3.5. Professional databases, information and reference systems, electronic educational resources.

It e m N o.	Name resource	Resource Description	Access	Resource address
		Electronic library systems		
1	"Student Consultant" Electronic Library of the Medical University.	For students and faculty of medical and pharmaceutical universities. Provides access to electronic versions of textbooks, teaching aids, and periodicals.	library, individual access	http://www.studmedlib.ru/
2	"Doctor's Consultant" Electronic Medical Library.	The materials in the library were developed by leading Russian specialists based on modern scientific knowledge (evidence-based medicine). The information was prepared taking into account the position of the scientific and practical medical community (global, European, and Russian) in the relevant specialty. All materials have undergone mandatory independent peer review.	library, individual access	http://ww w.rosmedl ib.ru/cgi- bin/mb4x
3	PubMed	MedLine, the largest medical bibliographic database. It documents medical and biological articles from specialized literature and provides links to full-text articles.	library, free access	https://pub med.ncbi. nlm.nih.go v/
4	OxfordMedicine Online.	A collection of Oxford Press medical publications, bringing together over 350 titles into a single, crosssearchable resource. Publications include The Oxford Handbook of Clinical Medicine and The Oxford Textbook of Medicine, the electronic versions of which are constantly updated.	library, free access	http://www. oxfordmedi cine.com
5	Human Biology Knowledge Base	Reference information on physiology , cell biology , genetics , biochemistry , immunology , and pathology . (Source: Institute of	library, free access	http://hum bio.ru/

	1		T	<u> </u>
		Molecular Genetics, Russian		
		Academy of Sciences .)		
6	Medical online	Free reference books, encyclopedias,	library, free	http://med
		books, monographs, essays, English-	access	-lib.ru/
		language literature, tests.		
	T	Information systems	T	
7		A professional internet resource.		
		Purpose: to facilitate the effective		1
	Russian Medical	professional activities of medical	library, free	http://ww
	Association	personnel. Contains the charter,	access	w.rmass.ru
		personnel,		<u> </u>
		Structure, rules of entry, information		
0		about the Russian Medical Union.		
8		The website provides a directory of		
		professional medical resources,		
	Web medicine  Worldwide healthcare organization  Ministry of Science and Higher Education of the Russian Federation  Ministry of Education of the Russian Federation.	including links to the most		1-44
	Web medicine	authoritative specialized websites,	library, free	http:
	Web medicine	journals, societies, as well as useful documents and programs. It is	access	//webmed. irkutsk.ru/
		intended for physicians, students, and		II KUUSK.I U/
		staff of medical universities and		
		research institutions.		
		Databases		
9		The site contains news, statistics on		
9	Worldwide healthcare organization	countries that are members of the	library, free	http://ww
		World Health Organization, fact		w.who.int/
		sheets, reports, WHO publications,	access	ru/
		and much more.		<u>14/</u>
10		The website of the Ministry of Science		
10	Ministry of Science and	and Higher Education of the Russian		http://www.
	1		library, free	minobrnauki
		newsletters, reports, publications and	access	.gov.ru
		much more.		85 / 125
11	251	The website of the Ministry of		
	-	Education of the Russian Federation	library, free	https://edu
		contains news, newsletters, reports,	access	.gov.ru/
	rederation.	publications, and much more.		
12				http://
				www.
		A single point of access to		edu.ru/
	Federal Portal "Russian	educational resources. This portal	library, free	http://windo
	Education"	provides access to textbooks on all	access	w.edu.ru/ca
		areas of medicine and healthcare.		talog/?p
				<u>rubr</u>
				<u>=2.2.81.1</u>
		Bibliographic databases		
13		Created at the Central Scientific and		
	RD	Methodological Library, it covers the	library, free	http://ww
		entire collection since 1988. The	access	w.scsml.rs
	Russian Wichichie	database contains bibliographic	access	<u>si.ru/</u>
		descriptions of articles from Russian		
	·			·

		journals and collections, dissertations and their abstracts, as well as Russian and foreign books, institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related fields of biology, biophysics, biochemistry, psychology, etc.		
14	eLIBRARY.RU	A Russian information portal in science, technology, medicine, and education, containing abstracts and full texts of over 13 million scientific articles and publications. The eLIBRARY.RU platform offers electronic versions of over 2,000 Russian scientific and technical journals, including over 1,000 openaccess journals.	library, free access	http://elibrar y.ru/defaultx .asp
15	Portal Electronic library of dissertations	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	library, free access	http://diss. rsl.ru/?me nu=disscat alog/
16	Medline.ru	Biomedical portal for specialists. Biomedical journal. Last updated February 7, 2021.	library, free access	http://ww w.medline .ru

## 3.6. Licensed and freely distributed software used in the educational process

	III. Commercial software products					
1.	MS Windows 7 Pro operating system	License number 48381779				
2.	Operating system: MS Windows 10 Pro, MS	AGREEMENT No. 142 A dated December				
	Office	25, 2019				
3.	MS Office	License numbers: 43234783, 67810502,				
		67580703, 64399692, 62795141, 61350919				
4.	Kaspersky Endpoint Security for Business	Agreement No. 977/20 dated 12/24/2020				
	Advanced					
5.	1 C: PROF University	LICENSE AGREEMENT No. 2191 dated				
		October 15, 2020				
6.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated				
		November 11, 2020				
	II. Freely distrib	uted software				
		Freely distributed				
1.	Coogle Chrome	Distribution Terms:				
1.	Google Chrome	https://play.google.com/about/play-				
		terms/index.html				
		Freely distributed				
2.	Yandex Browser	License Agreement for the Use of Yandex				
		Browser Software				

		https://yandex.ru/legal/browser_agreement/	
		Freely distributed	
3.	Dr.WebCureIt!	License Agreemen	
٥.	DI. WebCurett!	https://st.drweb.com/static/new-	
		www/files/license_CureIt_ru.pdf	
		Freely distributed	
4.	OpenOffice	License:	
		http://www.gnu.org/copyleft/lesser.html	
		Freely distributed	
5.	LibreOffice	License: https://ru.libreoffice.org/about-	
		us/license/	

#### 3.7 Resources of the information and telecommunications network "Internet"

#### **Internet resources:**

Primary health care standards

https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/1-standarty-pervichnoy-mediko-sanitarnoy-pomoschi

Standards of specialized medical care

https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/2-standarty-spetsializirovannoy-meditsinskoy-pomoschi

Procedures for providing medical care to the population of the Russian Federation <a href="https://www.rosminzdrav.ru/ministry/61/4/stranitsa-857/poryadki-okazaniya-meditsinskoy-pomoschi-naseleniyu-rossiyskoy-federatsii">https://www.rosminzdrav.ru/ministry/61/4/stranitsa-857/poryadki-okazaniya-meditsinskoy-pomoschi-naseleniyu-rossiyskoy-federatsii</a>

Federal Electronic Medical Library <a href="http://www.femb.ru">http://www.femb.ru</a> (Clinical guidelines)

#### 4. Assessment Fund

## 4.1. Examples of test tasks for intermediate knowledge assessment

(access mode: <a href="https://educ-amursma.ru/course/view.php?id=627">https://educ-amursma.ru/course/view.php?id=627</a> Number of test tasks – 100

#### **Choose 1 correct answer:**

- 1. THE MOST SEVERE COURSE OF ANGINA PECTORIS IS OBSERVED IN PATIENTS WITH THE FOLLOWING LESIONS:
  - 1) stenosis of the main trunk of the left coronary artery;
  - 2) proximal lesion of the posterior coronary artery;
  - 3) distal lesion of the circumflex artery;
  - 4) proximal lesion of the circumflex artery;
  - 5) with a combination of proximal narrowing of the left and circumflex arteries.
- 2. THE MAIN HEMODYNAMIC SIGN OF COARCTION OF THE THORACIC AORTA IS:
  - 1) increased blood pressure in the lower extremities;
  - 2) hypotension when measuring blood pressure in the upper limbs;

- 3) high-grade bradycardia;
- 4) hypertension above and hypotension below the site of aortic stenosis;
- 5) increase in BCC.

## 3. ARTERIAL HYPERTENSION CAN BE SUSPICIOUS BY THE FOLLOWING CLINICAL SIGNS AND MANIFESTATIONS:

- 1) short-term episodes of loss of consciousness;
- 2) disturbances of cardiac rhythm and conduction;
- 3) the presence of peripheral edema;
- 4) pain in the parietal and occipital regions;
- 5) disturbance of breathing rhythm.

# 4.2. List of practical skills that a student should possess after completing the internship

- 1. collection of complaints and anamnesis, active questioning about the presence, nature and severity of chest pain and shortness of breath during physical exertion, episodes of short-term weakness in the limbs, numbness of half of the face or limbs, and the volume of diuresis
- 2. General examination and physical examination, including palpation of peripheral vessels and auscultation of the subclavian, carotid, renal and femoral arteries, measurement of body mass index and waist circumference.
- 3. Interpretation of laboratory data: hemoglobin and/or hematocrit, fasting plasma glucose, total cholesterol, low-density lipoprotein cholesterol, high-density lipoprotein cholesterol, serum triglycerides, serum potassium and sodium, uric acid, serum creatinine (with calculation of SCF), urine albuminuria test and albuminuria criteria
- 4. risk factors, signs of subclinical damage to target organs and associated clinical conditions that influence the patient's prognosis and are used to stratify overall cardiovascular risk
- 5. determine absolute and relative contraindications for prescribing various groups of antihypertensive drugs to a patient
- 6. Questioning about the presence, severity and nature of chest pain at rest and under stress, the number of nitroglycerin tablets taken per day/week, shortness of breath, intermittent claudication, episodes of short-term weakness in the limbs or numbness of half the face or limbs.
- 7. conducting and interpreting the results of stress tests (bicycle ergometry, treadmill test, stress echocardiography) in case of pre-test probability of coronary heart disease, when taken under dispensary observation or in case of an increase in FC for more than 1 month for the purpose of risk stratification, outpatient ECG monitoring if there is a suspicion of concomitant paroxysmal arrhythmia or vasospastic angina;
- 8. Know the ankle -brachial index values for suspected peripheral atherosclerosis (stenosis) based on a survey and peripheral arterial pulsation test.
- 9. explaining to the patient and/or providing him with a reminder on the algorithm of emergency actions in case of a life-threatening condition, the probability of which the patient is most likely to develop
- 10. CHA2DS2-VASc score in the presence of atrial fibrillation
- 11. apply classification (risk stratification) to analyze the nature of ventricular ectopic activity and its clinical manifestations, as well as the presence or absence of organic heart disease as the cause of its occurrence.

- 12. diagnosis of signs of CHF, identification of its clinical symptoms and verification of functional disorders and organic heart damage.
- 13. evaluation of the main parameters of echocardiography when performed in patients with CHF-NFV (size of the heart cavities, zones of hypokinesis, akinesis and dyskinesis, the value of the ejection fraction)
- 14. Taking and interpreting ECG.
- 15. Conducting vagal and drug tests.
- 16. Clinical signs and emergency care for pulmonary edema.
- 17. Conducting and interpreting daily ECG monitoring.
- 18. Conducting and interpreting daily blood pressure monitoring.
- 19. diagnose complications and provide emergency care in case of an attack of angina pectoris, myocardial infarction, cardiogenic shock and acute heart failure, heart rhythm disturbances, hypertensive crisis.
- 20. Perform indirect cardiac massage, know the criteria for effectiveness
- 21. Perform artificial ventilation of the lungs (mouth to mouth, mouth to nose), know the criteria for effectiveness.
- 22. Draw up a plan for rehabilitation and preventive measures for cardiac diseases

## 4.3. List of questions for the test

- 1. Develop tactics for managing a patient with ACS.
- 2. Coronary artery disease. Stable angina: classification, clinical features, diagnostics, differential diagnosis, treatment, and prevention.
- 3. Coronary artery disease. Acute coronary syndrome. Unstable
- 4. Angina pectoris. Myocardial infarction: classification, clinical presentation, diagnostics, differential diagnosis, treatment, prevention.
- 5. Complications of myocardial infarction. Predisposing factors. Classification, clinical presentation, diagnostics, differential diagnosis, treatment, and prevention.
- 6. Present a schematic diagram of the mechanism of development of paroxysmal arrhythmias.
- 7. Heart rhythm disorders (atrial extrasystole, paroxysmal supraventricular tachycardia), pathogenesis, clinical presentation, changes in hemodynamics and ECG, treatment, indications for electropulse therapy.
- 8. Atrial fibrillation and atrial flutter: pathogenesis, classification, ECG changes, treatment, indications for electroconvulsive therapy, and interventional treatments. Prevention of thromboembolic complications.
- 9. Sick sinus syndrome: diagnosis, clinical features, treatment, and indications for pacemaker implantation. Tachy-brady syndrome.
- 10. Morgagni Adams-Stokes syndrome: etiology, clinical features, diagnosis, treatment.
- 11. Atrioventricular block: pathogenesis, classification, clinical features, ECG characteristics, and treatment. Indications for temporary cardiac pacing and pacemaker implantation.
- 12. Develop an algorithm for emergency treatment of a patient with VT and hemodynamic impairment.
- 13. Assess the prognosis and develop treatment tactics for a patient who has had a myocardial infarction and has an AV block, depending on the size of the myocardial damage and the nature of the intraventricular conduction disturbances.
- 14. Develop a strategy for examining a patient with CHF against the background of malignant arterial hypertension and hypertensive heart disease.

- 15. What features of the functional state of the myocardium can be expected in CHF against the background of arterial hypertension?
- 16. Acute heart failure, cardiogenic shock. Classification, mechanism of development, clinical features, diagnosis, differential diagnosis, treatment, and prevention.
- 17. How is the malignant variant of hypertension diagnosed?
- 18. Arterial hypertension in pregnant women: etiology and classification. Hemodynamic characteristics, diagnostic criteria, differential diagnosis, and treatment.
- 19. Arterial hypertension in coarctation of the aorta: hemodynamics, clinical picture, diagnostic criteria, differential diagnosis, indications for surgical treatment.
- 20. Arterial hypertension in elderly patients: hemodynamics, clinical features, diagnostic criteria, and treatment. Prevention of postural syncope.
- 21. Renal arterial hypertension: classification, clinical presentation, diagnostics, differential diagnosis, treatment.
- 22. Endocrine arterial hypertension (Itsenko-Cushing's syndrome and disease, pheochromocytoma, aldosteronoma), clinical presentation, diagnostics, differential diagnosis, treatment.
- 23. Infective endocarditis: classification, clinical features, diagnostics, differential diagnosis, treatment, prevention.
- 24. Myocarditis: classification, clinical features, diagnostics, differential diagnosis, treatment, prevention
- 25. Pulmonary embolism: clinical presentation, diagnostics, differential diagnosis, treatment, prevention.
- 26. Preoperative preparation of cardiac patients. Goals and objectives. Selection of drug therapy.

## MODULE 4 " ACUTE CARDIOVASCULAR PATHOLOGY IN GENERAL MEDICAL PRACTICE "

#### 1.2. Purpose and objectives of the practice

The purpose of the internship is to consolidate and deepen the theoretical knowledge acquired in previous classes, to reinforce the professional skills and abilities developed by the future doctor during practical classes in previous courses, to develop readiness to carry out diagnostic and therapeutic measures, to provide emergency medical care for pathologies of the circulatory system at the level of a final-year student, and to be able to independently conduct informational and educational work to promote a healthy lifestyle and prevent cardiovascular diseases.

#### **Practice objectives:**

- 1. To promote the development of professional skills in examining a patient with acute cardiovascular pathology, substantiating his clinical diagnosis and providing emergency medical care taking into account the identified clinical syndromes
- 2. To consolidate knowledge of the physiological features of the cardiovascular system in acute cardiovascular conditions
- 3. Learn to create a patient examination plan in an emergency situation that will allow you to quickly and effectively clarify the diagnosis and choose the right treatment strategy
- 4. Learn to quickly formulate a treatment algorithm for a patient in an emergency situation and implement all necessary measures with the help of nursing staff
- 5. To consolidate knowledge of changes in ECG and laboratory parameters in acute cardiovascular events
- 6. Correctly interpret the results of the main methods of functional and laboratory examination of cardiac patients

- 7. Formulate an adequate diagnosis and create a correct algorithm for emergency care based on a physical examination and additional diagnostic methods
- 8. Correctly assess the dynamics of the patient's condition against the background of the treatment and adjust the tactics of further measures

# 1.3 Place of practice in the structure of the main professionaleducational programhigher education

In accordance with the Federal State Educational Standard of Higher Education (2020), the "Acute Cardiovascular Pathology in General Medical Practice" module of the "General Medical Practice" industrial practice course is part of the core component, Block 2. The total workload is 36 hours and is completed in the 11th semester of the sixth-year student. Assessment is by credit and grade in the 11th semester.

#### 1.4. Forms of practice control.

Intermediate control is used as a form of monitoring the completion of practical training, including testing, control of theoretical knowledge, and control of the acquisition of practical skills.

### 1.5. Internship reporting forms.

Industrial practice diary, calendar schedule for completing the internship.

#### 1.6. Requirements for students

To master the practiceknowledge, skills and abilities are required, formed by previous disciplines:

## Spiritual and moral aspects of medicine

**Knowledge:** moral and ethical standards, rules and principles of professional conduct of a physician, the rights of the patient and the physician, the main ethical documents regulating the activities of a physician

**Skills:** build and maintain working relationships with patients and members of the medical institution team.

**Skills**: building working relationships with patients and the work team.

#### **Professional foreign language**

**Knowledge**: basic medical and pharmaceutical terminology in a foreign language.

**Skills**: apply knowledge to communication and obtaining professional information from foreign sources.

**Skills:** application of language skills for communication and obtaining professional information from foreign sources.

## Histology, embryology, cytology

**Knowledge:**histological structure of tissues of the cardiovascular system in terms of influence on the electrophysiological properties of the heart

**Skills:** explain the relationship between changes in the ECG and the innervation and blood supply of the heart, the structure of cardiomyocytes and cells of the conduction system

**Skills:** explanation of the pathogenesis of changes on the ECG with the features of the structure, innervation and blood supply of the heart

## Physics, mathematics.

**Knowledge:** mathematical methods for solving intellectual problems and their application in medicine; theoretical foundations of computer science, search, storage, processing, transformation and distribution of information in medical systems; the use of information

computer systems in medicine and healthcare; the operating principles and design of equipment used in medicine, the fundamentals of the physical foundations of methods used in functional diagnostics

**Skills:** use electronic search systems for educational and scientific literature, use programs for storing medical information, medical statistics programs, work with electrical equipment taking into account safety regulations.

**Skills:** use of electronic search systems for educational and scientific literature, use of programs for storing and searching medical documentation, medical statistics programs, work with an electrocardiograph and spirograph taking into account safety regulations

### **Biology**

**Knowledge:** the laws of genetics and their significance for medicine, the patterns of heredity and variability in individual development as the basis for a scientific understanding of the pathogenesis of hereditary and multifactorial heart diseases

**Skills:** analyze the role of heredity and variability in the development of heart disease, in particular, heart rhythm disorders

**Skills:** analysis of the role of hereditary factors and multifactorial mechanisms in the development of the studied pathological conditions of the heart and blood vessels

### Normal physiology

**Knowledge:**synaptic connections at the level of the heart and blood vessels and cardiac electrophysiology

**Skills**: analyze the importance of regulating biological processes in the body for the functioning of the cardiovascular system

**Skills:** analysis of the state of regulation of myocardial functions and electrophysiological processes in it and the cardiac conduction system in the studied pathological conditions

### Pathophysiology, clinical pathophysiology

**Knowledge:** morphological changes in tissuesorganism in case of cardiovascular pathology andrespiratory system

**Skills:** determine the contribution of pathophysiological processes to the development of cardiac pathology and its signs on the ECG

**Skills:** identifying possible causes of ECG changes in a given pathological condition from a pathophysiological perspective

### **Propaedeutics of internal diseases**

**Knowledge:** methods for collecting complaints and clarifying the anamnesis of the disease, physical examination of a patient with cardiac and vascular pathology

**Skills:** collect complaints and anamnesis, conduct a physical examination of the patient, identify the main clinical syndromes of heart disease, interpret the obtained data in conjunction with the results of functional and laboratory diagnostic methods

**Skills:** examining a patient with a cardiovascular disease, taking into account all the canons of propaedeutics of internal diseases, determining the diagnosis of the disease taking into account the examination data and additional diagnostic methods

#### Public health and healthcare, health economics

**Knowledge:** Fundamentals of the Russian Federation legislation on public health protection, key regulatory and technical documents; population health indicators, factors shaping human health (environmental, professional, natural and climatic, endemic, social, epidemiological, psychoemotional, professional, genetic)

**Skills:** plan, analyze, and evaluate the quality of medical care, the health status of the population, and the impact of environmental and occupational factors; calculate medical statistics.

**Skills:** working with basic medical documentation of a hospital and clinic within the scope of duties of a department physician or general practitioner, organizing medical care and analyzing its quality for the population at the medical site, assessing the health status of the population and the impact of environmental and industrial factors on morbidity, calculating medical statistics

## **Emergency conditions in therapy**

**Knowledge:**Etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of emergency conditions in cardiology

**Skills:** diagnose the main urgent conditions in cardiology and pulmonology, formulate and justify a clinical diagnosis, conduct their differential diagnosis and provide emergency care.

**Skills:** diagnostics based on ECG data of emergency conditions in cardiology - acute myocardial infarction and its complications, rhythm and conduction disorders, differential diagnosis and provision of emergency care to patients with these changes

## Faculty therapy. Outpatient therapy.

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, principles of diagnosis, treatment and prevention of major cardiovascular diseases

**Skills:** identify and explain ECG signs of the heart diseases being studied, prescribe additional functional examination methods necessary to confirm them, formulate a clinical diagnosis of the diseases taking into account the data obtained

**Skills:** identifying and explaining the essence of ECG changes detected in patients with the heart diseases under study, prescribing additional functional examination methods necessary to confirm the diagnosis, formulating a clinical diagnosis of the disease taking into account the data obtained

## 1.7. Interdisciplinary connections of the module with subsequent disciplines and practices

Knowledge and skills acquired during the course of mastering the module and necessary for studying subsequent disciplines and practices:

No.	Name of subsequent	Module "Acute Cardiovascular Pathology in		
	disciplines	General Medical Practice"		
1.	Clinical pharmacology	+		
2.	Forensic medicine	+		
3.	Outpatient therapy	+		
4.	Hospital therapy	+		

## 1.8. Requirements for the results of the internship

Mastering the module "Acute cardiovascular pathology in general medical practice" is aimed at developing the following competencies: universal (UC), general professional (GPC) and professional (PC): UC - 1, 4, 6, 7, 9; GPC - 1, 4, 5, 7, 10, 11; PC - 1, 2, 3, 4, 5, 6, 10, 12, 14.

No.	Code and	As a result of mastering the module "Acute cardiovascular		Code and name	
p/p	Name	pathology in ger	neral medical practice " the	student must:	indicator
	competencies	Know	Be able to	To own	achievements
					competencies
1	UC -1. Capable of critically analyzing problematic situations based on a systems approach and developing an action strategy.	The main historical stages of the development of Cardiology, the subject and objectives of Cardiology, including Emergency Cardiology, the relationship with other medical, biological, and medical disciplines; the main terms and concepts used in Cardiology; modern concepts in the study of cardiac pathology, including emergency conditions; principles of using logical and methodological tools for a critical assessment of modern philosophical and social concepts in Cardiology.	To characterize the stages of development of cardiology in Russia as a science and its role in the present day; to evaluate the contribution of Russian scientists to the development of cardiology; to develop and justify a strategy for solving problematic situations based on a systemic and interdisciplinary approach to cardiology; to evaluate the levels of organization of the human cardiovascular system.	Skills in analyzing the importance of cardiology at the present stage; systematic analysis of the obtained data to resolve problematic situations in the professional sphere; methodology for developing and arguing strategies for solving problematic situations based on a systemic and interdisciplinary approach in Cardiology, a critical approach to the evaluation and reliability of information sources, and a methodology for working with conflicting information obtained from different sources	AI UC-1.1. Analyzes a problem situation using a systems approach. AI UC-1.2. Develops and argues strategies for solving problematic situations based on a systemic and interdisciplinary approach. AI UC-1.3. Applies systems analysis to resolve problematic situations in the professional field. AI UC-1.4. Uses logical and methodological tools to critically evaluate contemporary philosophical and social concepts in their subject area. AI UC-1.5. Critically evaluates the reliability of information sources and works with conflicting information from different sources.
2	UC -4. Able to use	Principles of application of modern communication	Apply modern communication	Skills in using modern communication	<b>AI UC-4.1.</b> Uses communicative and linguistic tools to build effective

	modern	technologies, including in	technologies, including in	technologies, including in	partnerships with patients and
	communication	foreign language(s), for	foreign language(s), for	foreign language( s ), for	colleagues; selects a communication
		academic and professional	academic and professional	academic and professional	style.
	technologies,	_			AI UC-4.2. Uses modern
	including in	interaction	interaction	interaction	
	foreign				communication resources to search,
	language(s), for				process, and transmit information
	academic and				necessary for the effective
	professional				performance of professional tasks
	interaction				and the achievement of
					professionally significant goals.
					AI UC-4.3. Compiles, translates
					from a foreign language into the
					state language of the Russian
					Federation and from the state
					language of the Russian Federation
					into a foreign language, edits
					various academic texts (abstracts,
					essays, reviews, articles, etc.).
					AI UC-4.4. Presents the results of
					academic and professional activities
					at various public events, including
					international ones, choosing the
					most appropriate format.
					AI UC-4.5. Defends their positions
					and ideas in a reasoned and
					constructive manner in academic
					and professional discussions in the
					official language of the Russian
					Federation and a foreign language.
3	UC -6. Able to	Principles for defining and	Identify and implement	Skills for identifying and	AI UC-6.1 . Assesses personal,
	identify and	implementing priorities for	priorities for one's own	implementing priorities for	situational, and time resources and
	implement	one's own activities and	activities and ways to	one's own activities and	utilizes them optimally to complete

	priorities for one's own activities and ways to improve them based on self-assessment and lifelong learning.	ways to improve them based on self-assessment and lifelong learning	improve them based on self-assessment and lifelong learning	ways to improve them based on self-assessment and lifelong learning	assigned tasks.  AI UC-6.2. Plans his/her activities within the framework of professional tasks.  AI UC-6.3. Conducts critical self-analysis of the results of one's own activities.  AI UC-6.4. Identifies professional growth priorities and ways to improve one's own performance based on self-assessment against selected criteria.
4	UC -7. Able to maintain an adequate level of physical fitness to ensure full social and professional functioning.	Principles of maintaining an adequate level of physical fitness to ensure full social and professional activity	Maintain an adequate level of physical fitness to ensure full social and professional functioning	Skills to maintain an adequate level of physical fitness to ensure full social and professional activity	AI UC -7.1. Compliance with and promotion of healthy lifestyle norms in various life situations and in professional activities.  AI UC-7.2. Planning work and leisure time to optimally balance physical and mental stress and ensure performance.  AI UC-7.3. Skills in selecting health-preserving technologies to maintain a healthy lifestyle, taking into account the physiological characteristics of the body.
5	UC -9. Able to apply basic defectological knowledge in social and professional	Principles of using basic defectological knowledge in social and professional spheres	To use knowledge of the basics of defectology in social and professional spheres	Skills in using basic knowledge of defectology in social and professional spheres	AI UC-9.1. Principles of non-discriminatory interaction in communication in various spheres of life, taking into account the socio-psychological characteristics of persons with disabilities.

	spheres.				AI UC-9.2. Organization of joint professional activities with the participation of persons with disabilities.
			General professional	competencies	
5	GPC-1. Able to implement moral and legal norms, ethical and deontological principles in professional activities	Ethical and deontologicalAspects of doctor-to-doctor, doctor-to-patient, and doctor-to-patient relationships; principles of effective and conflict-free communication with patients; methods of effective communication between doctor and patient in difficult situations; basic requirements for the personality of a doctor; general principles of conducting discussions and round tables	Conduct a survey and physical examination of the patient, draw up a plan for additional examination using laboratory, functional, radiation and other diagnostic methods, taking into account ethical and deontological principles; Communicate effectively and without conflict with patients, relatives, and colleagues; build effective relationships with patients; observe confidentiality principles; conduct discussions in accordance with the principles of moral and ethical reasoning	Communication skills with patients, relatives, colleagues, and mid-level and junior staff; methods of verbal and non-verbal communication with patients; principles of confidentiality in professional activities and communication with colleagues; skills for conflict-free and productive communication in the work team	AI GPC -1.1. Carrying out professional activities in accordance with ethical standards and moral principles.  AI GPC-1.2. Organization of professional activities, guided by healthcare legislation, knowledge of medical ethics and deontology.  AI GPC-1.3. Skills in expressing an independent point of view, analytical and logical thinking, public speaking, moral and ethical argumentation, conducting discussions and roundtables, and principles of medical deontology and medical ethics.
6	GPC-4. Capable of using medical devices as provided for by	Indications and contraindications for the use of modern medical technologies, medical	Apply modern medical technologies, specialized equipment, medical devices, and medications	Skills in the use of modern medical technologies, specialized equipment, medical devices, drugs and	AI GPC -4.1. Use of modern medical technologies, specialized equipment and medical devices, disinfectants, medications, including

	the procedure for providing medical care, as well as conducting patient examinations to establish a diagnosis	devices, medications, instrumental, functional, and laboratory examination methods in cardiology; interpretation of the results of the most common methods of instrumental, laboratory, and functional diagnostics; methods of general clinical examination of the patient; principles of formulating a clinical diagnosis in cardiology according to the ICD	in accordance with the procedure for providing medical care, from the standpoint of evidence-based medicine in the field of cardiology; prescribe instrumental, functional, and laboratory examination methods; interpret the results of using the listed methods; conduct a clinical examination of the patient; formulate clinical diagnosis in cardiology according to ICD	their combinations from the standpoint of evidence-based medicine in cardiology; to compare the results of the survey, anamnesis data, physical examination with the data of additional examination methods (instrumental, laboratory and functional diagnostics) to identify pathological processes; methods of general clinical examination of patients of different ages; formulation of a clinical diagnosis according to the ICD, taking into account the combination of the abovementioned clinical and additional examination methods	immunobiological and other substances and their combinations in solving professional problems from an evidence-based medicine perspective.  AI GPC-4.2. Knowledge of indications and contraindications for instrumental, functional, and laboratory examination methods, possible complications during examination, emergency care, and their prevention.  AI GPC-4.3. Interpretation of the results of the most common methods of instrumental, laboratory and functional diagnostics, thermometry to identify pathological processes.  AI GPC-4.4. Proficiency in methods of general clinical examination of patients of various ages.  AI GPC-4.5. Formulation of preliminary diagnosis and clinical diagnosis according to ICD.
7	GPC-5. Capable of assessing morphofunctional, physiological states and pathological	Principles of assessing morphofunctional, physiological states and pathological processes in the human body to solve professional problems	To evaluate morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Skills for assessing morphofunctional, physiological states and pathological processes in the human body to solve professional problems	AI GPC -5.1. Knowledge of the functional systems of the human body, their regulation and self-regulation when interacting with the external environment under normal and pathological conditions.  AI GPC-5.2. Knowledge of the etiology, pathogenesis,

	processes in the				morphogenesis of disease
	human body to				development, and the main
	solve professional				nosologies.
	problems				AI GPC-5.3. Information on the
	P				indicators of the morphofunctional
					and physiological state of a healthy
					person and the ability to determine
					them.
					AI GPC-5.4. Information on the use
					of morphofunctional, physiological,
					and pathological process indicators
					for examining the human body to
					establish a diagnosis, prescribe
					treatment, and monitor its
					effectiveness and safety.
					AI GPC-5.5. Methods of analysis
					and interpretation of macroscopic and
					microscopic changes in normal and
					pathologically altered tissues and
					organs.
					_
8	GPC-7. Capable	drug selection based on	To select the optimal drug	Skills in prescribing the	<b>AI GPC -7.1.</b> Selection of a
	of prescribing	the combination of its	(taking into account its	optimal medication,	medicinal product based on its
	treatment and	pharmacokinetic and	pharmacokinetic and	choosing the preferred	pharmacokinetic and
	monitoring its	pharmacodynamic	pharmacodynamic	method of its use, taking	pharmacodynamic characteristics for
	effectiveness and	characteristics for the	characteristics) and the	into account the	the treatment of patients with
	safety.	treatment of patients with	preferred method of its	morphofunctional	various nosological forms in
		various circulatory	administration; to identify	characteristics,	outpatient and inpatient settings.
		diseases; advantages of	the main and side effects	physiological conditions and	AI GPC-7.2. Selecting the optimal
		the selected drug and the	of drugs used in	pathological processes in	minimum of the most effective
		preferred route of	cardiology, taking into	diseases of the circulatory	means using convenient methods of
		administration; primary	account the	system, and the possible	their application.
		and secondary effects of	morphofunctional	interaction of drugs with the	AI GPC-7.3. Explanation of the

		drugs; morphofunctional characteristics,	characteristics, physiological states and	combined use of various drugs;	primary and secondary effects of drugs, the effects of their combined
		physiological states, and pathological processes in	pathological processes of the human body;	the ability to promptly identify side effects of drugs	use and interaction with food, taking into account the morphofunctional
		the body of a cardiac	Select over-the-counter	used in clinical cardiology;	characteristics, physiological
		patient when selecting a	medications and other	determination of the	conditions, and pathological
		drug; results of possible	pharmacy products based	effectiveness and safety of	processes in the human body.
		drug interactions with the	on the physiological	drug therapy for diseases of	AI GPC-7.5. Consideration of
		combined use of various	conditions and	the circulatory system based	morphofunctional characteristics,
		drugs in cardiology;	pathological processes in	on a combination of clinical,	physiological states, and
		criteria for the	patients with circulatory	laboratory, instrumental and	pathological processes in the human
		effectiveness and safety	diseases; consider	other diagnostic methods.	body when selecting over-the-
		of drug therapy based on	potential drug interactions		counter medications and other
		a combination of clinical,	when using various		pharmacy products.
		laboratory, instrumental,	medications in		<b>AI GPC-7.6.</b> Analysis of the results
		and other diagnostic	combination in cardiology;		of potential drug interactions with
		methods for circulatory	and evaluate the		the combined use of various drugs.
		diseases.	effectiveness and safety of		AI GPC -7.7. Evaluation of the
			drug therapy using a		effectiveness and safety of drug
			combination of clinical,		therapy using a combination of
			laboratory, instrumental,		clinical, laboratory, instrumental
			and other diagnostic methods in cardiology.		and other diagnostic methods.
			methods in cardiology.		
9	GPC-10. Capable	Principles for solving	Methods for solving	Skills in solving standard	AI GPC-10.1. Maintaining
	of solving	standard professional	standard professional tasks	professional tasks using	Confidentiality When Working with
	standard	tasks using information	using information and	information, bibliographic	Information Databases and
	professional tasks	and bibliographic	bibliographic resources,	resources, medical and	Individual Citizen Data.
	using information	resources, medical and	medical and biological	biological terminology, and	AI GPC-10.2. Skills for effectively
	and bibliographic	biological terminology,	terminology, and	information and	searching for information necessary
	resources,	and information and	information and	communication	to solve professional problems using
	medical and	communication	communication	technologies, taking into	legal reference systems and
	biological	technologies, taking into	technologies, taking into	account the basic	professional pharmaceutical

	terminology, and	account the basic	account the basic	requirements of information	databases.	
	information and	requirements of	requirements of	security	AI GPC-10.3. Skills in using	
	communication	information security	information security		specialized software for the	
	technologies,				mathematical processing of	
	taking into				observational and experimental data	
	account basic				when solving problems in	
	information				professional activities.	
	security				AI GPC -10.4. Skills in using	
	requirements.				automated information systems in	
	•				the internal processes of a medical	
					organization, as well as for	
					organizing interactions between	
					medical personnel and patients of	
					medical organizations.	
10	<b>GPC-11.</b> Able to	Basic methodological	Independently work with	Skills in a systematic	AI GPC 11.1. Applying modern	
	prepare and apply	approaches to working	educational, scientific,	approach to the analysis of	methods for collecting and	
	scientific,	with educational,	reference, medical	educational, scientific,	processing information, conducting	
	research and	scientific, reference	literature, including on the	reference, medical	statistical analysis of the obtained	
	production,	medical literature,	Internet (search and select	information, including	data in the professional field, and	
	design,	including on the Internet	information) in the field of	Internet sources ( methods	interpreting the results to solve	
	organizational and	( methods of collecting,	clinical cardiology;	of collecting and processing	professional problems.	
	managerial, and	storing and processing	carry out statistical	information); basic skills in	AI GPC 11.2. Identification and	
	regulatory	information);	processing, analysis of the	using medical information	analysis of problematic situations,	
	documentation in	Algorithms and software	obtained data and interpret	systems and Internet	search and selection of scientific,	
	the healthcare	tools for decision support	the results to solve	resources;	regulatory, and organizational	
	system.	during the treatment and	professional problems in	methods of maintaining	documentation in accordance with	
		diagnostic process in	the field of diagnosis and	medical records;	the specified objectives.	
		clinical cardiology;	treatment of diseases of	The main scientific methods	AI GPC 11.3. Interpretation and	
		methods for collecting,	the circulatory system;	of cognition: observation,	application of physical, chemical,	
		storing, searching,	interprets and applies data	description, measurement,	mathematical, and other natural	
		processing, transforming	from physical, chemical,	experimentation in the field	science concepts and methods to	
		and disseminating	mathematical and other	of clinical cardiology;	solve professional problems.	
		information in medical	natural science concepts	analysis and preparation of	AI GPC-11.4. Conducting scientific	

		information systems; methods of maintaining medical records; Basic statistical methods for solving intellectual problems and their application in clinical, including emergency, cardiology.	and methods to solve professional problems in the field of clinical, including emergency cardiology.	accounting and reporting medical documentation and methods for calculating qualitative and quantitative indicators used in clinical, including emergency, cardiology.	and practical research, analyzing information using the historical method and preparing a publication based on the research results.  AI GPC-11.5. Analysis and compilation of accounting and reporting medical documentation and calculation of qualitative and quantitative indicators used in professional activities.
11	DC 1 Constitu	Clinical signs of	Professional com	<u> </u>	AI PC -1.3. Identification of
	PC-1. Capable of providing medical care in urgent and emergency situations.	conditions requiring emergency medical care in cardiology (ACS, ACS complicated by pulmonary edema or cardiogenic shock, hypertensive crisis, paroxysmal supraventricular tachycardia, paroxysmal ventricular tachycardia, paroxysmal atrial fibrillation/flutter, complete AV block); methods for providing emergency medical care in	To identify clinical signs of conditions requiring emergency medical care in cardiology (ACS without complications, ACS complicated by pulmonary edema, cardiogenic shock, pulmonary embolism, cardiac ruptures; hypertensive crisis; paroxysmal supraventricular tachycardia, paroxysmal ventricular tachycardia, paroxysmal atrial fibrillation/flutter,	Skills in diagnosing and providing emergency medical care in cardiology for ACS without complications, ACS complicated by pulmonary edema, cardiogenic shock, cardiac ruptures; hypertensive crisis; paroxysmal supraventricular tachycardia, paroxysmal ventricular tachycardia, paroxysmal atrial fibrillation/flutter, complete AV block	conditions requiring emergency medical care  AI PC - 1.4. Providing emergency medical care to patients with lifethreatening conditions

12	PC-2. Capable of collecting and analyzing complaints, life history and medical history of the patient in order to establish a diagnosis	Methodology for collecting complaints (primary and secondary) from a patient with cardiac pathology; method for collecting the patient's medical history (timing of seeking medical care, dynamics of symptom development, volume of therapy administered and its effectiveness), life history, including risk factors for circulatory diseases, data on past illnesses, injuries and surgical interventions, hereditary, professional, and epidemiological history.	complete AV block); to provide emergency medical care in cardiology Establish rapport with the patient; collect complaints and a medical history of the patient with cardiovascular pathology, analyze the obtained data; determine risk factors for the patient's existing circulatory disease; evaluate information on the patient's medical history, paying particular attention to concomitant diseases, hereditary, allergic, professional, and epidemiological history.	Skills for establishing contact and compliant relationships with a patient with a circulatory disease; collecting complaints (primary and secondary), disease history (onset, dynamics of symptom development, seeking medical care, characteristics and scope of therapy and its effectiveness), life history (risk factors, comorbidities, allergy, occupational, epidemiological history) of a patient with a cardiovascular disease.	AI PC -2 .1. Establishing contact with the patient.  AI PC -2 .2. Collection of complaints, specification of them, identification of main and secondary ones.  AI PC -2 .3. Collection and analysis of information on the onset of the disease, the presence of risk factors, the dynamics of the development of symptoms and the course of the disease.  AI PC -2 .4. Analysis of the timing of the first and repeated requests for medical care, the volume of therapy administered, and its effectiveness.  AI PC -2.5 . Collection and evaluation of information on the medical history, including data on past illnesses, injuries and surgical interventions, hereditary, professional, and epidemiological
12	PC-3 Capable	The methodology of a	Conduct a complete	Skills in conducting a	history.  ALPC 31 Conducting a complete
13	PC-3. Capable of performing a physical examination of a patient and analyzing the	The methodology of a complete physical examination of a patient with cardiovascular disease (inspection, palpation, percussion,	Conduct a complete physical examination of a patient with cardiovascular disease (inspection, palpation, percussion, auscultation) and interpret	Skills in conducting a complete physical examination of a patient with cardiovascular disease (inspection, palpation, percussion, auscultation)	AI PC -3.1. Conducting a complete physical examination of the patient (inspection, palpation, percussion, auscultation) and interpreting its results  AI PC-3.2. Justification of the
	results of	auscultation) and	the results; determine the	and interpreting its results;	necessity, scope, and sequence of

	additional	interpretation of its results;	need, scope, and sequence	refer the patient for	diagnostic procedures (laboratory,	
	examination	the need, scope, sequence	of diagnostic measures and	diagnostic procedures	instrumental) and referral of the	
	methods to	of diagnostic measures and	indications for	(laboratory, instrumental),	patient to specialist doctors for	
	establish a	indications for	consultation with specialist	for consultation with	consultations	
	diagnosis.	consultation with specialist	doctors; analyze and	specialist doctors; analysis	AI PC-3.3. Analysis of the obtained	
		doctors; the methodology	compare the obtained	and comparison of the	results of the patient examination, if	
		for analyzing and	clinical and diagnostic	obtained clinical and	necessary, justification and planning	
		comparing the obtained	results of the examination	diagnostic results of	of the scope of additional studies.	
		clinical and diagnostic	of the patient with	examination of the patient	AI PC -3.4. Interprets and analyzes	
		results of examination of a	circulatory disease;	with circulatory disease; the	the results of collecting information	
		patient with circulatory	determine indications for	ability to analyze the main	about the patient's disease, data	
		disease; indications for	prescribing additional	clinical manifestations	obtained during laboratory and	
		prescribing additional	examination methods;	cardiovascular disease,	instrumental examinations and	
		examination methods (if	identify cardiovascular	establishing a clinical	during consultations with specialist	
		necessary); principles of	disease syndromes,	diagnosis in accordance	doctors; if necessary, justifies and	
		early diagnosis, the main	substantiate their clinical	with the current	plans the scope of additional	
		symptoms and syndromes	diagnosis in accordance	International Statistical	research.	
		of cardiovascular diseases;	with the current	Classification of Diseases	AI PC -3.5. Early diagnosis of	
		formulation of a diagnosis	International Statistical	and Related Health	internal organ diseases. Diagnosis is	
		taking into account the	Classification of Diseases	Problems (ICD) and	made in accordance with the current	
		current International	and Related Health	justifying it; conducting	International Statistical	
		Statistical Classification of	Problems (ICD); conduct	differential diagnostics of	Classification of Diseases and	
		Diseases and Related	differential diagnostics of	the identified cardiovascular	Related Health Problems (ICD).	
		Health Problems (ICD);	the identified	pathology	<b>AI PC-3.6.</b> Differential diagnosis of	
		differential diagnosis of	cardiovascular pathology.	with other diseases.	internal organ diseases from other	
		circulatory diseases.			diseases.	
14	PC-4. Capable	Medical indications for	Determine medical	Skills in determining	AI PC -4.1. Determination of	
	of determining	emergency, including	indications for providing	medical indications for	medical indications for the provision	
	indications for	specialized emergency,	emergency, including	emergency, including	of emergency, including specialized	
	hospitalization,	medical care in cardiology;	specialized emergency,	specialized emergency,	emergency, medical care	
	indications for	medical indications for	medical care to a patient	medical care in cardiology;	<b>AI PC-4.2.</b> Referral of a patient for	
	emergency	referring a patient for	with cardiovascular	the ability to determine	specialized medical care in an	
	medical care,	specialized medical care in	disease; determine medical	medical indications for	inpatient setting or in a day hospital	

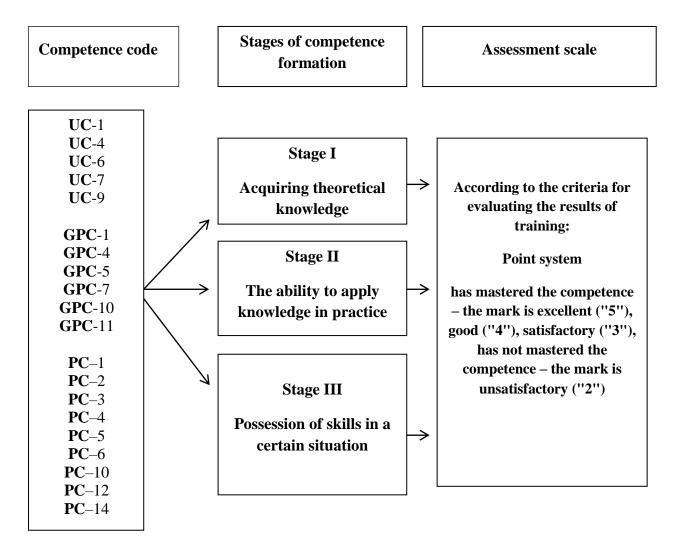
	including specialized emergency medical care.	an inpatient setting or in a day hospital setting, principles for the use of medical devices in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) for the provision of medical care, taking into account the standards of medical care in cardiology.	indications for referring a patient for specialized medical care in a hospital or day hospital setting, principles for the use of medical devices in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) in cardiology	referring a patient for specialized medical care in a hospital or day hospital setting; principles of using medical devices in accordance with current medical care procedures, clinical guidelines (treatment protocols) for providing medical care to patients with cardiovascular pathology.	setting if there are medical indications in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) for the provision of medical care, taking into account the standards of medical care.  AI PC-4.3. Use of medical devices in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) for the provision of medical care, and care taking into account standards of medical care.
15	PC-5. Able to prescribe treatment to patients	Modern methods of application, mechanism of action, indications and contraindications for the prescription of drugs and medical devices for diseases of the circulatory system (taking into account the diagnosis, age and clinical picture of the disease) in accordance with current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical	To develop a treatment plan for a patient with cardiac pathology taking into account the diagnosis, age, and clinical presentation of the disease in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) on issues of providing medical care, taking into account standards of medical care in cardiology; to prescribe medications, medical devices, and non-	Skills in developing an individualized treatment plan for a patient with cardiac pathology, taking into account the diagnosis, age, and clinical presentation of the disease in accordance with current procedures for providing medical care, clinical guidelines (treatment protocols) on providing medical care, taking into account standards of medical care in cardiology; prescribe non-drug treatment for diseases of the	AI PC -5.1. Drawing up a treatment plan for a patient taking into account the diagnosis, age of the patient, clinical picture of the disease, presence of complications, concomitant pathology, in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) on issues of providing medical care, taking into account the standards of medical care.  AI PC-5.2. Prescribing medications, medical devices, and therapeutic nutrition based on the diagnosis, age, and clinical picture of the disease in accordance with current

		care, taking into account the standards of medical care in cardiology; Non-drug treatment based on the diagnosis, age, and clinical presentation of cardiovascular disease; principles of providing palliative care to patients with circulatory diseases; principles of organizing personalized patient treatment, including pregnant women and elderly and senile patients with cardiovascular	drug treatment for diseases of the circulatory system; to provide palliative care to patients with diseases of the circulatory system; to organize personalized treatment for the patient, including pregnant women, elderly patients with cardiovascular diseases, in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols)	circulatory system; provide palliative care to patients with diseases of the circulatory system; organize personalized treatment for patients, including pregnant women, elderly patients with cardiovascular diseases, in accordance with current procedures for providing medical care, clinical guidelines (treatment protocols) on providing medical care, taking into account standards of medical care in	procedures for providing medical care, clinical guidelines, and standards of medical care  AI PC-5.3. Prescribing non-drug treatment based on the diagnosis, age, and clinical presentation of the disease in accordance with current medical care procedures, clinical guidelines, and standards of medical care.  AI PC-5.4. Providing palliative care in collaboration with specialist physicians and other health care professionals  AI PC-5.5. Organization of personalized patient treatment,
16	PC-6. Capable of monitoring the effectiveness and safety of the therapy being administered.	•	Assess the efficacy and safety of medications, medical devices, nutritional therapy, and other treatment methods for patients with		
		pharmacodynamics and pharmacokinetics of the main groups of drugs used in cardiology	cardiovascular disease; consider the pharmacodynamics and pharmacokinetics of drugs used in cardiology when prescribing.	ability to take into account the pharmacodynamics and pharmacokinetics of drugs used in the treatment of circulatory diseases when prescribing	pharmacodynamics and pharmacokinetics of key drug groups, prevents adverse drug reactions, and corrects them if they occur.
17	<b>PC-10.</b> Capable of conducting and monitoring	Forms and methods of educational work, preventive measures for	To identify modifiable risk factors for the development of	Skills in conducting educational work, preventive measures for	AI PC-10.1. Prescribing preventive measures to patients taking into account risk factors for the

	the effectiveness of preventive measures and promoting a healthy lifestyle.	patients taking into account risk factors for the prevention and early detection of circulatory diseases, including socially significant diseases; risk factors for the development of cardiovascular diseases	cardiovascular diseases; to promptly prescribe preventive measures to patients taking into account risk factors for the prevention and early detection of circulatory diseases, including socially significant diseases in cardiology	patients taking into account the identified risk factors for the development of cardiovascular diseases for the prevention and early detection of pathology of the circulatory organs, including socially significant ones	prevention and early detection of diseases, including socially significant diseases
18	PC-12. Ready to maintain medical records, including in electronic form	Rules for the preparation of medical documentation (including electronic documentation) in cardiology-focused medical organizations; principles for working with patients' personal data and information constituting a medical secret	Fill out medical documentation (including electronically) in cardiology-focused medical organizations; handle patients' personal data and information constituting a medical secret; prepare documents when referring patients for hospitalization, consultation, spa treatment, and medical and social assessment	Skills in completing medical documentation (including electronically) in cardiology-focused medical organizations; ability to work with patients' personal data and information constituting a medical secret; preparation of documents when referring patients with cardiac diseases for hospitalization, consultation, spa treatment, and medical and social assessment	AI PC -12.1 .Completion of medical documentation, including in electronic form AI PC -12.2 .Working with patients' personal data and information constituting a medical secret AI PC-12.3. Preparation of documents for referring patients for hospitalization, consultation, spa treatment, and medical and social assessment.
19	PC-14. Capable of participating in scientific research activities.	Methodology of conducting scientific research; main directions of scientific research in clinical cardiology; principles and methods of conducting scientific research, medical statistics	Conduct scientific research, analyze medical information based on evidence-based medicine, and implement new methods in practical work aimed at protecting the health of the adult	Skills in participating in scientific research; the ability to analyze medical information based on evidence-based medicine and implement new methods in practical work aimed at protecting the	AI PC-14.1. Participation in scientific research AI PC-14.2. Evidence-Based Analysis of Medical Information AI PC -14.3. Implementation of new methods and techniques aimed at protecting the health of the adult population in practical healthcare

	population, including the	health of the adult	
	prevention of	population	
	cardiovascular diseases.		

#### 1.9. Stages of competence development and descriptions of assessment scales



## 2. Structure and content of practice

## 2. 1. Scope of practice

Scope of practice	
Total labor intensity in hours, total	432 hours
Time required for the "Acute Cardiovascular Pathology in	36 hours
General Practice" Module	
Total workload in credit units, total	12 z.e.
Type of intermediate assessment	Credit with grade

## 2.2. Type of practice

#### **Type of practice - industrial**.

Industrial internship is a mandatory part of the curriculum, directly focused on students' professional and practical training. During the program, students are encouraged to master a set of required practical skills.

### 2.3. Criteria for assessing students' knowledge

The assessment of learning outcomes is carried out in accordance with the "Regulations on the system for assessing the learning outcomes of students of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy of the Ministry of Health of the Russian Federation".

The basis for determining the level of knowledge, skills, and abilities are the assessment criteria - completeness and correctness:

- correct, precise answer;
- correct, but incomplete or inaccurate answer;
- incorrect answer:
- no answer.

When assigning marks, the classification of errors and their quality are taken into account:

- -gross errors;
- similar errors;
- minor errors:
- shortcomings.

#### Criteria for assessing the theoretical part

- "5" for the depth and completeness of mastery of the content of the educational material, in which the student can easily navigate, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present their answer competently and logically.
- "4" the student has fully mastered the educational material, is oriented in it, and expresses his answer competently, but the content and form contain some inaccuracies.
- "3" the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, and does not know how to express and justify his judgments.
- "2" the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and the secondary, makes mistakes in defining concepts, distorts their meaning, and presents the material in a disorderly and uncertain manner.

#### Test control evaluation criteria

- "5" when testing, up to 10% of incorrect answers are allowed.
- "4" allows up to 20% of incorrect answers during testing.
- "3" allows up to 30% of incorrect answers during testing.
- "2" during testing, more than 30% of incorrect answers are allowed.

#### Criteria for assessing the practical part

- "5" the student has fully mastered the practical skills and abilities provided for in the work program of industrial practice.
- "4" the student has mastered the practical skills and abilities provided for in the work program of industrial practice, but allows for some inaccuracies.
- "3" the student has only some practical skills and abilities.
- "2" the student has only some practical skills and abilities and performs them with gross errors.

#### Interim assessment (test lesson) on a five-point scale

The midterm assessment is conducted by a practice commission consisting of a course supervisor from the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy and a practice supervisor from a medical organization.

"5" (excellent) – for the depth and completeness of the student's understanding of the course material, which the student navigates easily, for their ability to connect theoretical and practical

questions, express and justify their judgments, and present their answers clearly and logically; Allows up to 10% incorrect answers during testing. The practical skills and abilities required by the internship program have been fully mastered.

- "4" good the student has fully mastered the course material, is familiar with it, and presents answers clearly, but the content and format contain some inaccuracies; during testing, the student makes up to 20% incorrect answers. The student has fully mastered the practical skills and abilities required for the course, but makes some inaccuracies.
- "3" (satisfactory) the student has mastered the knowledge and understanding of the main concepts of the course material, but presents it incompletely and inconsistently, and is unable to express and justify their judgments; during testing, the student makes up to 30% incorrect answers. The student possesses only some practical skills and abilities.
- "2" (unsatisfactory) the student has a fragmented and unsystematic knowledge of the course material, is unable to distinguish between essential and non-essential concepts, makes errors in defining concepts, distorts their meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% incorrect answers during testing. The student performs practical skills and abilities with significant errors.

#### 3. Educational, methodological, logistical and informational support for practice

#### 3.1 Main literature

- 1. Martynov, A. I. Internal diseases: T. I.: textbook / edited by Martynov A. I., Kobalava Zh. D., Moiseev S. V. Moscow: GEOTAR-Media, 2021. 784 p. ISBN 978-5-9704-5886-0. Text: electronic (date accessed: 05/04/2021). Access mode: by subscription. http://www.studmedlib.ru/book/ISBN9785970458860.html
- 2. Martynov, A. I. Internal Diseases: Vol. II.: textbook / ed. Martynova A. I., Kobalava J. D., Moiseeva S. V. Moscow: GEOTAR-Media, 2021. 704 p. ISBN 978-5-9704-5887-7. Text: electronic (date of receipt: 04.05.2021).

http://www.studmedlib.ru/book/ISBN9785970458877.html

3. Makolkin , V. I. Internal diseases: textbook / Makolkin V. I., Ovcharenko S. I., Sulimov V. A. - 6th ed.,reworked and additional Moscow: GEOTAR-Media, 2017. - 768 p. - ISBN 978-5-9704-4157-2. - Text: electronic (access date: 05/04/2021).

http://www.studmedlib.ru/book/ISBN9785970441572.html

## 3.2 Further reading

1. Arutyunov, G.P. Diagnostics and treatment of diseases of the heart and blood vessels / GEOTAR-Media. - 2015. - P. 504. ISBN 978-5-9704-3146-7. Text: electronic (date accessed: 05/21/2021). - Access mode: by subscription.

http://www.studmedlib.ru/book/ISBN9785970431467.html

- 2. Belyalov F.I. Cardiac arrhythmias / GEOTAR-Media. 2020. P. 448. ISBN 978-5-9704-5641-5. Text: electronic (accessed: 05/20/2021). Access mode: by subscription. <a href="http://www.studmedlib.ru/book/ISBN9785970456415.html">http://www.studmedlib.ru/book/ISBN9785970456415.html</a>
- 3. Beresten N.F. Functional diagnostics: national guidelines / edited by N.F. Beresten, V.A. Sandrikov , S.I. Fedorova. GEOTAR-Media. 2019. P. 784. (Series "National Guidelines") ISBN 978-5-9704-4242-5. Text: electronic (date accessed: 05/20/2021). Access mode: by subscription. <a href="http://www.studmedlib.ru/book/ISBN9785970442425.html">http://www.studmedlib.ru/book/ISBN9785970442425.html</a>
- 4. Vertkin A.L. Emergency medical care at the prehospital stage: textbook / A. L. Vertkin , L. A. Aleksanyan, M. V. Balabanova et al.; edited by A. L. Vertkin . GEOTAR-Media. 2016. P. 544. ISBN 978-5-9704-3579-3. Text: electronic (date accessed: 05/06/2021). Access mode: by subscription. <a href="http://www.studmedlib.ru/ru/book/ISBN9785970435793.html">http://www.studmedlib.ru/ru/book/ISBN9785970435793.html</a>
- 5. Gantseva, H.H. Clinical examination of the patient / Gantseva H.H., Ishmuratova R.Sh., Kzyrgalin Sh. R., Gainullin A. Kh. GEOTAR-Media. 2021. P. 208. ISBN 978-5-9704-

- 6035-1. Text: electronic (access date: 05/14/2021). Access mode: by subscription. <a href="http://www.studmedlib.ru/book/ISBN9785970460351.html">http://www.studmedlib.ru/book/ISBN9785970460351.html</a>
- 6. Kolpakov E.V. ECG in arrhythmias: atlas / Kolpakov E.V., Lyusov V.A., Volov N.A. GEOTAR-Media. 2013. P. 288. ISBN 978-5-9704-2603-6. Text: electronic (accessed: 05/20/2021). Access mode: by subscription.

http://www.studmedlib.ru/book/ISBN9785970426036.html

- 7. First aid and medical knowledge: a practical guide to actions in emergency situations / edited by L.I. Dezhurny, I.P. Minnullin. GEOTAR-Media. 2019. P. 256. ISBN 978-5-9704-5426-8.- Text: electronic (date accessed: 05/06/2021). Access mode: by subscription. http://www.studmedlib.ru/book/ISBN9785970454268.html
- 8. Reznik E.V. Clinical norms. Cardiology / GEOTAR-Media. 2020. P. 448 p. ISBN 978-5-9704-5851-8. Text: electronic (accessed: 05/20/2021). Access mode: by subscription. <a href="http://www.studmedlib.ru/book/ISBN9785970458518.html">http://www.studmedlib.ru/book/ISBN9785970458518.html</a>
- 9. Ruksin V.V. Emergency outpatient cardiology: a brief guide / GEOTAR-Media. 2018. P. 256. ISBN 978-5-9704-4791-8. Text: electronic (date accessed: 05/21/2021). Access mode: by subscription. <a href="http://www.studmedlib.ru/book/ISBN9785970447918.html">http://www.studmedlib.ru/book/ISBN9785970447918.html</a>
- 10. Trukhan D.I. Internal Medicine. Cardiology. Rheumatology: a textbook / D.I. Trukhan, I.A. Viktorova. Moscow: OOO Izd-vo "MIA". 2013. P. 376.
- 12. Shchukin Yu.V. Functional diagnostics in cardiology / Yu.V. Shchukin GEOTAR-Media. 2017. P. 336. ISBN 978-5-9704-3943-2. Text: electronic (accessed: 05.05.2021). Access mode: by subscription. http://www.studmedlib.ru/book/ISBN 9785970439432.html

## 3.3. Educational and methodological support for the discipline, prepared by the department staff

- 1. Vakhnenko Yu.V., Landyshev Yu.S., Dorovskikh I.E., Urazova G.E., Pogrebnaya M.V. Diagnostics of congenital heart defects // Amurtipograf . Blagoveshchensk. 2013. 156 p. (UMO)
- 2. Urazova G.E., Landyshev Yu.S., Naydenov A.V., Semikin E.N. Sinus node dysfunction // Blagoveshchensk. -2006.-46~p.~(UMO)
- 3. Urazova G.E., Landyshev Yu.S., Dorovskikh I.E., Vakhnenko Yu.V., Naidengov A.V. Acquired heart defects: diagnosis and treatment // Amurtipograf . Blagoveshchensk. 2013. 107 p. (UMO)
- 4. Vakhnenko Yu.V. Electronic teaching aid "ECG diagnostics of heart rhythm disorders". EIS FSBEI HE Amur State Medical Academy. 2021.
- 5. Vakhnenko Yu.V. Electronic teaching aid "Diagnostics and treatment of chronic ischemic heart disease". EIS FSBEI HE Amur State Medical Academy. 2021.
- 6. Vakhnenko Yu.V. Electronic textbook "Hypertrophy of the left and right chambers of the heart". EIS FSBEI HE Amur State Medical Academy. 2020.
- 7. Vakhnenko Yu.V. Electronic teaching aid "Normal ECG". Electronic Information and Training Manual of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy. 2020.
- 8. Vakhnenko Yu.V. Electronic textbook "ECG diagnostics of various clinical conditions". –EIS FGBOU VO Amur State Medical Academy. 2020.
- 9. Vakhnenko Yu.V. Electronic textbook "Myocardial infarction with ST elevation and its complications". EIS FSBEI HE Amur State Medical Academy. 2021.
- 10. Vakhnenko Yu.V. Electronic manual "Diagnostics and treatment of arterial hypertension". EIS FSBEI HE Amur State Medical Academy. 2020.

## 3.4. Material and technical base for conducting internship

Item No.	Name	Quantity
	Head of Department's Office	
1	Personal computer	1
2	Spirometer SHILLER SPIROVIT	1
3	Laximeter	1
4	Laptop	1
5	Systemicblock	2
6	Diagnostic complex for analysis of the vascular wall condition	1
7	Pulse oximeter	2
8	Printer	1
	Workshops No. 155-161	
9	Pulse oximeter	5
19	Binocular microscope	4
11	Spiroanalyzer	1
12	Single-channel electrocardiograph EK1K-01	1
13	Six-channel electrocardiograph ECG – 9001K	1
14	SpiroanalyzerFucudaSangyoST – 95	1
15	VitalgrafCOPD – 6	1
16	Diagnostic spirometric system with determination of airway resistance	1
17	Laser blood microcirculation analyzer LAKK-2	1
18	Portable diagnostic complex	1
19	Negatoscope	4
20	Blood Gas and Electrolyte Analyzer (Equipment Set)	1
2 1	Pneumatochograph with 4-seat integrator	1
22	Monitor	6
23	Brother DCP-1512R Multifunctional Device	2
	Computer class	
2 4	Computer	5
26	Printer	5
2 7	Laptop	4
28	Multimedia video projector	2
29	System unit	5
	Online class	1
	Practical skills class	
30	Model of an adult heart	1
31	Coronary anastomoses, introductory model	1
32	Giant Heart	1
33	A professional medical training mannequin simulating an adult human being for practicing advanced cardiopulmonary resuscitation techniques and training personnel in teamwork.	1

## Multimedia materials on electronic media ( CD , DVD )

## **Scientific library**

- 1. Abashin A.A. Electronic atlas ECG. B in 8 parts. Ch.1 // Abashin. 2010. S. 200. Format : chm / rar + 3%. Size : 31.61 Mb
- 2. <u>Aksenova GA</u>, <u>Domnitskaya TM</u> Atlas of electrocardiograms with unified conclusions // Medpraktika -M. -2008. ISBN: 978-5-98803-147-5

- 3. Internal diseases in 2 volumes: textbook / Edited by N.A. Mukhin, V.S. Moiseev, A.I. Martynov M .: "GEOTAR-Media". 2010. 1264 p. (C D -disc)
- 4. Internal Medicine. 333 test problems and commentary to them: a textbook for universities / Edited by Dvoretsky L.I., Mikhailov A.A., Strizhova N.V., Chistova V.S. 2nd edition. M.: "GEOTAR-Media". 2008. 160 p. (CD -ROM)
- 5. Internal Medicine: A Guide to Practical Classes in Faculty Therapy: A Textbook / Edited by Professor V.I. Podzolkov . Moscow: GEOTAR-Media. 2010. 640 p. (CD)
- 6. Internal Medicine: Textbook. //M.: OJSC "Izdatelstvo Medicine". 2008. 720 p. (Educational literature for students of medical universities) ( CD -ROM)
- 7. Vorobiev A.S. Electrocardiography. The latest reference book // Sova. 2003. P. 543. Format : djvu / rar + 3%. Size : 29.7 MB
- 8. Grigorov S. S., Votchal F. B., Kostyleva O. V. Title: Electrocardiogram with an artificial cardiac pacemaker // Medicine. 1990. P. 240. Format: djvu / rar + 3%. Size: 5.14 Mb
- 9. Diagnostics of internal diseases: medical encyclopedia // M.: 2007. (C D -disk)
- 10. Intensive care (national guidelines) // M.: "GEOTAR-Media". (C D -disc)
- 11. Kushakovsky M.S., Zhuravleva N.B. Arrhythmias and heart block (atlas of electrocardiograms) // 1981. P. 340. Format:djvu . 37.2 MB
- 12. Medical Encyclopedia // M. 2007. 10 volumes (2 CD -ROMs)
- 13. Medical standards, clinical protocols, and procedures for providing medical care. (C D -disc)
- 14. Murashko V. V., Strutynsky A. V. Electrocardiography // MEDpress-infom . 2007. Format : djvu . Size : 12.6 Mb
- 15. General Medical Practice: A Study Guide on CD-ROM for Medical Students (CD -ROM)
- 16. Orlov V.N. Guide to Electrocardiography // MIA. 1997. P. 528. Format: DJVU. Size: 10.1 Mb
- 17. Patient management plans. Therapy // M.: "GEOTAR-Media". 2011. (C D -disc)
- 18. Standards of medical care (information system). M.: "GEOTAR-Media" 2008. ( CD ROM)
- 19. Strutynsky A.V. Electrocardiogram: analysis and interpretation // MEDpress-inform . 2010. P. 224/100. Format : doc / rar + 3%. Size : 37.09 Mb
- 20. Hampton J. Fundamentals of ECG (electrocardiography) // Medical Literature. 2007. P.
- 274. Format: djvu . Size: 5.41 Mb
- $21. \ Hampton\ J.\ Fundamentals\ of\ ECG\ (electrocardiography)\ //\ Medical\ Literature.\ -\ 2007.\ -\ P.$
- 224. Format : djvu / rar + 3%. Size : 5.41 Mb
- 22. Hampton J.R. Atlas of the ECG (electrocardiogram). 150 clinical situations // Medical Literature. 2008. Format : djvu / rar + 3%. Size : 48.48 Mb
- 23. Zimmerman F. Clinical electrocardiography // Binom. 2008. P. 424. Format : djvu / rar + 3%. Size : 24.16 MB
- 24. Ebert, G.-H. Simple ECG analysis: interpretations, differential diagnosis // Logosfera . 2010. P. 280. Format : djvu / rar + 3%. Size : 16.1 MB
- 25. Express analysis of electrocardiogram // Scientific and Medical Center "Mysl". -2010. Format : djvu / rar + 3%. Size : 13.27 Mb
- 26. Electronic medical library: foreign practical guidelines // M.: Praktika. 2007. (From D disk)
- 27. Yartsev S.S. Electrocardiography. A practical guide and reference book for doctors // 2014. P. 227. Format:djvu . Size: 26.17 MB

#### At the department (CD -disks) - multimedia presentations:

- Normal ECG
- 2. ECG diagnostics of disorders of automatism and excitability functions
- 3. Supraventricular tachycardias with narrow and wide QRS complexes
- 4. ECG diagnostics of conduction function disorders
- 5. ECG diagnostics of cardiac hypertrophy
- 6. ECG diagnostics of chronic ischemic heart disease and myocardial infarction

- 7. Modern methods of functional diagnostics in cardiology
- 8. Rare ECG syndromes
- 9. ECG diagnostics of certain conditions in cardiology
- 10. Modern methods of functional diagnostics in pulmonology

#### Lectures (CD):

- 1. Electrophysiology of the heart. Elements of a normal ECG and their clinical significance.
- 2. Diagnosis of disorders of automatism and excitability
- 3. Diagnosis of conduction dysfunction
- 4. Diagnosis of chronic ischemic heart disease and myocardial infarction
- 5. Part 1. Diagnosis of left and right heart hypertrophy

Part 2. Methods of functional diagnostics of respiratory diseases

### Videos and photographs used in teaching students (prepared by department staff)

#### Video films (DVD)

- 1. Propaedeutics of internal diseases.
- 2. Propaedeutics of Internal Diseases (RSMU).
- 3. Methodology for conducting spirometry.
- 4. Methodology for conducting a bronchodilator test.

#### **Photo materials:**

- 1. Sets of training ECGs for each practical lesson
- 2. Spirogram sets for Practical Lesson 10
- 3. Photo album "Heart rhythm and conduction disorders"
- 4. Photo album "ECG diagnostics of myocardial infarction"
- 5. Photo album "ECG diagnostics of left and right heart hypertrophy"

#### Albums, stands, tables, tablets, handouts used in training (prepared by department staff)

#### **Stands**

- 1. Conduction system of the heart
- 2. Anticoagulants in the treatment of heart disease
- 3. Differential Diagnosis in Electrocardiography
- 4. The development of electrocardiography as a diagnostic method in Russia and abroad
- 5. ECG diagnostics of coronary heart disease
- 6. Biventricular cardiac pacing
- 7. Types of cardiac pacing

#### **Tables**

- 1. Electrocardiographic signs of myocardial hypertrophy.
- 2. Normal electrocardiogram
- 3. Significant dates in the development of electrocardiography
- 4. Membrane theory of cell and muscle fiber excitation
- 5. Electrocardiography capabilities
- 6. Plan for analysis and preparation of a conclusion on electrocardiography
- 7. Evaluation criteria for exercise electrocardiography
- 8. Indications for Holter monitoring.
- 9. Bazett's table
- 10. The role of electrocardiography in the diagnosis of myocardial infarction
- 11. Changes in the electrocardiogram in acute myocardial infarction of various locations
- 12. Differential diagnostics of large-focal and small-focal myocardial infarction.
- 13. Types of electrocardiogram changes in ischemic heart disease
- 14. Unstable angina
- 15. Classification of cardiac arrhythmias
- 16. Lown's classification of ventricular extrasystoles

- 17. Differential diagnosis of extrasystole
- 18. Heart rhythm disturbances associated with changes in excitation
- 19. Decreased ventilation function of the lungs
- 20. Classification of respiratory failure by severity
- 21. Chronic obstructive pulmonary disease.
- 22. Indications for peak flowmetry in patients with bronchial asthma
- 23. Spirometry of the lungs
- 24. Indications for the use of spirography
- 25. Spirogram indicators
- 26. Applications of spirometry
- 27. Plethysmography

#### Albums

- 1. Cardiac rhythm and conduction disorders
- 2. ECG diagnostics of myocardial infarction
- 3. "ECG diagnostics of left and right heart hypertrophy"
- 4. Methods of functional diagnostics in pulmonology
- 5. Rare ECG syndromes in cardiology

### **Equipment of the Accreditation and Simulation Center used for practical training**

Name of simulation equipment*	Model
A mannequin with the ability to simulate auscultatory images of heart and lung diseases	MW2810 Cardiology Patient Simulator "K" Plus Training System ver.2
General purpose negatoscope " Armed " - personnel	
Auscultation simulator with Smartoscope	Auscultation Trainer and Smartscope LF01172
On-screen virtual patient simulator	
Electrocardiograph EKZT-01-R-D 1/3-channel	
A robot simulator for training advanced cardiopulmonary resuscitation skills	Gaumard Scientific, USA
A mannequin for auscultation with the ability to simulate the auscultatory picture of various diseases	SAKAMOTO, Japan
A patient simulator simulating an adult male for ECG skills training	Laerdal ™, Norway

## 3.5. Professional databases, information and reference systems, electronic educational resources

Ite m No.	Name resource	Resource Description	Access	Resource address		
	Electronic library systems					
1.	"Student Consultant"	For students and faculty of medical	librory	<u>http://</u>		
	Electronic Library of	and pharmaceutical universities.	library, individual	www.		
	the Medical	Provides access to electronic		studmedli		
	University.	versions of textbooks, teaching aids,	access	b.ru/		

		and periodicals.	1	
2				
2.	"Doctor's Consultant" Electronic Medical Library.	The materials in the library were developed by leading Russian specialists based on modern scientific knowledge (evidence-based medicine). The information was prepared taking into account the position of the scientific and practical medical community (global, European, and Russian) in the relevant specialty. All materials have	library, individual access	http://ww w.rosmedl ib.ru/cgi- bin/mb4x
		undergone mandatory independent peer review.		
3.	PubMed	MedLine, the largest medical bibliographic database. It documents medical and biological articles from specialized literature and provides links to full-text articles.	library, free access   https://pubmed.ncbi.nlm.nih.gov/	
4.	OxfordMedicine Online.	A collection of Oxford Medical Press publications, bringing together over 350 titles into a single, cross-searchable resource. Publications include TheOxfordHandbookofClinicalMedicine and TheOxfordTextbookofMedicine, the electronic versions of which are constantly updated.	library, free access	http://www. oxfordmedi cine.com
5.	Human Biology Knowledge Base	Reference information on physiology , cell biology, genetics, biochemistry, immunology, and pathology. (Source: Institute of Molecular Genetics, Russian Academy of Sciences.)	library, free access	http://hum bio.ru/
6.	Medical online library	Free reference books, encyclopedias, books, monographs, essays, Englishlanguage literature, tests.	library, free access	http://med -lib.ru/
	1	Information systems	1	1
7.	Russian Medical Association	A professional internet resource. Purpose: to facilitate the effective professional activities of medical personnel. Contains the charter, personnel, Structure, rules of entry, information about the Russian Medical Union.	library, free access	http://ww w.rmass.ru /
8.	Web medicine	The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and	library, free access	http: //webmed. irkutsk.ru/

		staff of medical universities and		T
		research institutions.		
9.		Databases  The site contains payer statistics on		
9.	Worldwide healthcare organization	The site contains news, statistics on countries that are members of the World Health Organization, fact sheets, reports, WHO publications, and much more.	library, free access	http://ww w.who.int/ ru/
10.	Ministry of Science and Higher Education of the Russian Federation	The website of the Ministry of Science and Higher Education of the Russian Federation contains news, newsletters, reports, publications and much more.	library, free access	http://www. minobrnauki .gov.ru
11.	Ministry of Education of the Russian Federation.	The website of the Ministry of Education of the Russian Federation contains news, newsletters, reports, publications, and much more.	library, free access	https://edu .gov.ru/
12.	Federal Portal "Russian Education"	A single point of access to educational resources. This portal provides access to textbooks on all areas of medicine and healthcare.	library, free access	http:// www. edu.ru/ http://windo w.edu.ru/ca talog/?p rubr =2.2.81.1
		Bibliographic databases		
13.	BD Russian Medicine	Created at the Central Scientific and Methodological Library, it covers the entire collection since 1988. The database contains bibliographic descriptions of articles from Russian journals and collections, dissertations and their abstracts, as well as Russian and foreign books, institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related fields of biology, biophysics, biochemistry, psychology, etc.	library, free access	http://ww w.scsml.rs si.ru/
14.	eLIBRARY.RU	A Russian information portal in science, technology, medicine, and education, containing abstracts and full texts of over 13 million scientific articles and publications. The eLIBRARY.RU platform offers electronic versions of over 2,000 Russian scientific and technical journals, including over 1,000 openaccess journals.	library, free access	http://elibrar y.ru/defaultx .asp
15.	Portal Electronic library of	Currently, the Electronic Library of Dissertations of the Russian State	library, free access	http://diss. rsl.ru/?me

	dissertations	Library contains more than 919,000 full texts of dissertations and		nu=disscat alog/
		abstracts.		
16.	Medline.ru	Biomedical portal for specialists. Biomedical journal. Last updated February 7, 2021.	library, free access	http://ww w.medline .ru

## 3.6. Licensed and freely distributed software used in the educational process

	I. Commercial software products				
1.	MS Windows 7 Pro operating system	License number 48381779			
2.	Operating system: MS Windows 10 Pro, MS	AGREEMENT No. 142 A dated December 25,			
	Office	2019			
3.	MS Office	License numbers: 43234783, 67810502,			
		67580703, 64399692, 62795141, 61350919			
4.	Kaspersky Endpoint Security for Business Advanced	Agreement No. 977/20 dated 12/24/2020			
5.	1 C: PROF University	LICENSE AGREEMENT No. 2191 dated			
		October 15, 2020			
6.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated			
		November 11, 2020			
	II. Freely distributed software				
		Freely distributed			
1.	Google Chrome	Distribution Terms:			
1.	Google Chronic	https://play.google.com/about/play-			
		terms/index.html			
	Yandex Browser	Freely distributed			
2.		License Agreement for the Use of Yandex			
		Browser Software			
		https://yandex.ru/legal/browser_agreement/			
	Dr.WebCureIt!	Freely distributed			
3.		License Agreement:			
		https://st.drweb.com/static/new-			
		www/files/license_CureIt_ru.pdf			
4.	On a Coffin	Freely distributed			
	OpenOffice	License:			
		http://www.gnu.org/copyleft/lesser.html			
_	I 'il Off'	Freely distributed			
5.	LibreOffice	License: <a href="https://ru.libreoffice.org/about-">https://ru.libreoffice.org/about-</a>			
		<u>us/license/</u>			

## 3.7. Resources of the information and telecommunications network "Internet"

 $\label{lem:ministry} \begin{tabular}{ll} Ministry of Health of the Russian Federation. Standards of Primary Health Care - $$ $$ \underline{https://www.rosminzdrav.ru/61/22/stranitsa-979/stranitsa-983?1-standarty-pervichnoy-medikosanitarnoy-pomoschi$$ $$ anitarnoy-pomoschi$$ $$$ 

Ministry of Health of the Russian Federation. Standards of Specialized Medical Care - <a href="https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/2-standarty-spetsializirovannoy-meditsinskoy-pomoschi">https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/2-standarty-spetsializirovannoy-meditsinskoy-pomoschi</a>

 $\label{lem:ministry} \begin{tabular}{ll} Ministry of Health of the Russian Federation. Procedure for Providing Medical Care to the Population of the Russian Federation - $\frac{https://www.rosminzdrav.ru/61/4/stranitsa-857/poryadki-okazaniya-meditsinskoy-pomoschi-naseleniyu-rossiyskoy-federatsii} \end{tabular}$ 

Clinical guidelines of the Russian Ministry of Health – <a href="https://medi.ru/klinicheskie-rekomendatsii/">https://medi.ru/klinicheskie-rekomendatsii/</a> Website of the Russian Respiratory Society <a href="http://spulmo.ru">http://spulmo.ru</a>

Website of the Russian Society of Cardiology <a href="http://scardio.ru">http://scardio.ru</a>

#### 4. Evaluation Fund

## 4.1. Examples of test tasks for intermediate knowledge assessment

Testing is conducted in the Moodle system (email address <a href="https://educ-amursma.ru/course/view.php?id=90">https://educ-amursma.ru/course/view.php?id=90</a>). There are 100 test tasks in total.

#### **Choose 1 correct answer:**

- 1. WHEN CORONARY ARTERY STENTING IS PLANNED, A PATIENT WITH ACS MUST TAKE CLOPIDOGREL IN A DOSE
  - 1. 200 mg
  - 2. 300 mg
  - 3. 600 mg
  - 4. 900 mg
- 2. IN THE EVENT OF AN ATTACK OF PRINZMETAL'S ANGINA, THE PATIENT IS SHOWN
  - 1. bisoprolol and nitrates
  - 2. diltiazem and nitrates
  - 3. metoprolol and nitrates
  - 4. ACE inhibitors
- 3. THE MOST ACUTE STAGE OF MYOCARDIAL INFARCTION WITH ST ELEVATION IS CHARACTERIZED BY THE FOLLOWING ECG SIGNS
  - 1. the presence of a monophasic curve (ST elevation)
  - 2. the presence of a monophasic curve and a pathological Q wave
  - 3. Q wave without changes in the ST segment
  - 4. all of the listed signs may be present

#### **Answers** : 3, 2, 1

# 4.2. List of practical skills that a student should possess after completing the internship

- 1. Methodology for collecting complaints from a patient with cardiovascular pathology
- 2. Methodology for collecting anamnesis of the disease in a patient with cardiovascular pathology
- 3. Methodology for collecting anamnesis of life in a patient with cardiovascular pathology
- 4. Methodology of physical examination of a patient with cardiovascular pathology

- 5. ECG diagnostics of myocardial infarction with ST elevation with determination of stage and localization
- 6. Algorithm for diagnosing myocardial infarction without ST elevation
- 7. Drawing up an examination plan for a patient with ACS without complications
- 8. Drawing up an examination plan for a patient with ACS complicated by pulmonary edema
- 9. Drawing up an examination plan for a patient with ACS complicated by cardiogenic shock
- 10. Drawing up an examination plan for a patient with ACS complicated by rhythm disturbance
- 11. Drawing up an examination plan for a patient with ACS complicated by cardiac ruptures
- 12. Drawing up a prescription sheet for a patient with ACS complicated by pulmonary edema
- 13. Drawing up a prescription list for a patient with ACS complicated by cardiogenic shock
- 14. Drawing up a prescription sheet for a patient with ACS complicated by rhythm disturbance
- 15. Drawing up a prescription sheet for a patient with ACS complicated by cardiac ruptures
- 16. Drawing up an examination plan for a patient with uncomplicated hypertensive crisis
- 17. Drawing up an examination plan for a patient with complicated hypertensive crisis
- 18. Drawing up a prescription sheet for a patient with uncomplicated hypertensive crisis
- 19. Drawing up a prescription sheet for a patient with complicated hypertensive crisis
- 20. ECG diagnostics of supraventricular paroxysmal tachycardias
- 21. ECG diagnostics of ventricular paroxysmal tachycardias
- 22. ECG diagnostics of atrial fibrillation
- 23. ECG diagnostics of atrial flutter
- 24. ECG diagnostics of Frederick's syndrome
- 25. Drawing up an examination plan for a patient with paroxysmal supraventricular tachycardia
- 26. Drawing up an examination plan for a patient with paroxysmal ventricular tachycardia
- 27. Drawing up an examination plan for a patient with paroxysmal atrial fibrillation
- 28 Drawing up an examination plan for a patient with tachystolic atrial fibrillation and signs of heart failure
- 29. Drawing up an examination plan for a patient with paroxysmal supraventricular tachycardia in Wolff-Parkinson-White syndrome
- 30. Drawing up a prescription sheet for a patient with paroxysmal ventricular tachycardia
- 31. Drawing up a prescription sheet for a patient with paroxysmal atrial fibrillation
- 32. Drawing up a prescription sheet for a patient with tachystolic atrial fibrillation and signs of heart failure
- 33. Drawing up a prescription sheet for a patient with paroxysmal supraventricular tachycardia in Wolff-Parkinson-White syndrome
- 34. Conducting differential diagnostics of ventricular tachycardia and supraventricular tachycardia with wide QRS complexes
- 35. Termination of supraventricular tachycardia using "vagal tests"
- 36. Determination of indications for drug cardioversion in paroxysmal atrial fibrillation/flutter and prescription of drugs indicating dosages suitable for this purpose in accordance with the underlying diagnosis
- 37. Determination of indications for electrical cardioversion in paroxysmal atrial fibrillation/flutter
- 38. Algorithm for preparing a patient for electrical cardioversion
- 39. Determination of indications for radiofrequency/ cryoablation in atrial fibrillation/flutter
- 40. Algorithm for preparing a patient for radiofrequency/ cryoablation for atrial fibrillation/flutter
- 41. Determination of indications for surgical treatment of Wolff- Parkinson -White syndrome
- 42. ECG diagnostics of sinoatrial block
- 43. ECG diagnostics of AV block
- 44. ECG diagnostics of right bundle branch block
- 45. ECG diagnostics of left bundle branch block
- 46. ECG diagnostics of both bundle branch block

- 47. Drawing up an examination plan for a patient with high-degree sinoatrial block
- 48. Drawing up an examination plan for a patient with high-degree AV block
- 49. Drawing up a prescription sheet for a patient with high-degree sinoatrial block
- 50. Drawing up a prescription sheet for a patient with high-degree AV block
- 51. Drawing up a prescription sheet for a patient with Frederick's syndrome
- 52. Determination of indications for temporary cardiac pacing in high-degree SA and AV blocks
- 53. Determination of indications for permanent cardiac pacing in high-degree SA and AV blocks
- 54. Justification for the choice of a pacemaker depending on the specific clinical situation.
- 55. Determination of indications for implantation of a three-chamber pacemaker
- 56. ECG analysis with an implanted single-chamber pacemaker
- 57. ECG analysis with an implanted dual-chamber pacemaker
- 58. ECG analysis with a three-chamber pacemaker
- 59. 12-lead ECG recording
- 60. Interpretation of Holter monitoring results

### 4.3. List of questions for the test

- 1. What does a medical history include?
- 2. What does a life history include?
- 3. What does a physical examination of the cardiovascular system include?
- 4. ECG signs of myocardial infarction with ST elevation in the acute stage
- 5. ECG signs of myocardial infarction with ST elevation in the subacute stage
- 6. ECG signs of myocardial infarction with ST elevation in the scarring stage
- 7. Algorithm for diagnosing myocardium with ST elevation
- 8. Algorithm for diagnosing myocardial infarction without ST elevation
- 9. Algorithm for diagnosing ACS complicated by pulmonary edema
- 10. Algorithm for diagnosing ACS complicated by cardiogenic shock
- 11. Algorithm for diagnosing ACS complicated by rhythm disturbance
- 12. Algorithm for diagnosing ACS complicated by cardiac ruptures
- 13. Algorithm for diagnosing ACS complicated by pulmonary edema
- 14. Algorithm for the treatment of ACS complicated by cardiogenic shock
- 15. Algorithm for the treatment of ACS complicated by rhythm disturbances
- 16. Algorithm for the treatment of ACS complicated by cardiac ruptures
- 17. Algorithm for examining a patient with uncomplicated hypertensive crisis
- 18. Algorithm for examining a patient with complicated hypertensive crisis
- 19. Algorithm for treating a patient with uncomplicated hypertensive crisis
- 20. Algorithm for treating a patient with complicated hypertensive crisis
- 21. ECG signs of supraventricular paroxysmal tachycardia
- 22. ECG signs of ventricular paroxysmal tachycardia
- 23. ECG signs of atrial fibrillation
- 24. ECG signs of atrial flutter
- 25. ECG signs of Frederick's syndrome
- 26. Algorithm for examining a patient with paroxysmal supraventricular tachycardia
- 27. Algorithm for examining a patient with paroxysmal ventricular tachycardia
- 28. Algorithm for examining a patient with paroxysmal atrial fibrillation
- 29. Algorithm for examining a patient with tachystolic atrial fibrillation and signs of heart failure
- 30. Algorithm for examining a patient with paroxysmal supraventricular tachycardia in Wolff-Parkinson-White syndrome
- 31. Treatment algorithm for a patient with paroxysmal ventricular tachycardia
- 32. Algorithm for treating a patient with paroxysmal atrial fibrillation
- 33. Treatment algorithm for a patient with tachystolic atrial fibrillation and signs of heart failure
- 34. Algorithm for treating a patient with paroxysmal supraventricular tachycardia in Wolff-Parkinson-White syndrome

- 35. Differential diagnostic criteria for ventricular tachycardia and supraventricular tachycardia with wide QRS complexes
- 36. Methods of stopping supraventricular tachycardia using "vagal tests"
- 37. Indications for drug-induced cardioversion in paroxysmal atrial fibrillation/flutter and prescription of medications with dosages appropriate for this purpose in accordance with the underlying diagnosis
- 38. Indications for electrical cardioversion in paroxysmal atrial fibrillation /flutter
- 39. Algorithm for preparing a patient for electrical cardioversion
- 40. Indications for radiofrequency/ cryoablation in atrial fibrillation/flutter
- 41. Algorithm for preparing a patient for radiofrequency/ cryoablation for atrial fibrillation /flutter
- 42. Indications for surgical treatment of Wolff- Parkinson -White syndrome
- 43. ECG signs of sinoatrial block
- 44. ECG signs of AV block
- 45. ECG signs of right bundle branch block
- 46. ECG signs of left bundle branch block
- 47. ECG signs of block of both branches of the His bundle
- 48. Algorithm for examining a patient with high-degree sinoatrial block
- 49. Algorithm for examining a patient with high-degree AV block
- 50. Algorithm for treating a patient with high-degree sinoatrial block
- 51. Algorithm for treating a patient with high-degree AV block
- 52. Treatment algorithm for a patient with Frederick's syndrome
- 53. Indications for temporary cardiac pacing in high-degree SA and AV blocks
- 54. Indications for permanent cardiac pacing in high-degree SA and AV blocks
- 55. Selecting the type of pacemaker depending on the specific clinical situation.
- 56. Indications for implantation of a three-chamber pacemaker
- 57. Changes in the ECG with an implanted single-chamber pacemaker
- 58. Changes in the ECG with an implanted dual-chamber pacemaker
- 59. Changes in the ECG with a three-chamber pacemaker
- 60. Safety precautions when recording an ECG
- 61. Sensor installation points when recording 12-lead ECG
- 62. Holter monitoring capabilities

# MODULE 5 "ONCOLOGICAL DISEASES, ONCOPROPHYLAXIS, PALLIATIVE CARE"

### 1.2 Purpose and objectives of the practice

The purpose of the internship is to practically apply theoretical knowledge in oncology, to develop practical skills in students in providing outpatient medical care to cancer patients in a three-tier system of specialized oncological care, prevention, and principles of providing palliative care to patients with malignant neoplasms.

The objectives of the internship are to develop a set of work activities and skills within the framework of mastering job functions: preparing and entering medical documentation for cancer patients, examining patients with suspected malignant neoplasms and tumors to establish a diagnosis, developing a specialized treatment plan for patients with malignant neoplasms and monitoring its effectiveness. Knowledge of the side effects and complications of specialized treatments and the ability to make adjustments. Mastering methods of primary, secondary, and tertiary cancer prevention, as well as medical rehabilitation.

# 1.3. The place of practice in the structure of the main professional educational program of higher education.

In accordance with the Federal State Educational Standard of Higher Education (2020), the "Oncological Diseases, Oncoprophylaxis, Palliative Care" module of the "General Medical Practice" industrial practice program is part of the core component, Block 2. The total workload is 36 hours and is completed in the 11th semester of the sixth-year student. Assessment is by credit and grade in the 11th semester.

### 1.4. Forms of practice control.

Intermediate control is used as a form of monitoring the completion of practical training, including testing, control of theoretical knowledge, and control of the acquisition of practical skills.

### 1.5. Internship reporting forms.

Industrial practice diary, individual problem-based assignment for industrial practice, calendar schedule for completing the practice.

### 1.6. Requirements for students

# To master the practice, knowledge, skills and abilities formed by previous disciplines/practices are necessary:

### Latin

Knowledge: basic medical and pharmaceutical terminology in Latin.

**Skills:** be able to apply knowledge for communication and obtaining information from medical literature, medical documentation

**Skills:** applies medical and pharmaceutical terminology in Latin in professional activities

### **Professional foreign language**

Knowledge: basic medical and pharmaceutical terminology in a foreign language

**Skills:** be able to apply knowledge for communication and obtaining information from foreign sources

**Skills:** applies medical and pharmaceutical terminology in a foreign language in professional activities

#### **Bioethics**

**Knowledge:** moral and ethical standards, rules and principles of professional medical conduct, rights of the patient and the doctor, basic ethical documents regulating the activities of the doctor

**Skills**: build and maintain working relationships with patients and other team members.

**Skills:** applies moral and ethical standards, rules and principles of professional medical conduct, the rights of the patient and the doctor, the main ethical documents regulating the activities of the doctor in his professional activities

### **Biochemistry**

Knowledge: blood composition, biochemical blood constants, hormones, buffer systems,

### hemoglobin oxygenation factors, erythrocyte metabolism

**Skills:** analyze the contribution of biochemical processes to the functioning of organs and the cardiovascular, respiratory, digestive, urinary, and hematopoietic systems; interpret the results of the most common laboratory diagnostic methods to identify disorders in diseases of internal organs and occupational diseases.

**Skills:** applies knowledge of blood composition, blood biochemical constants, hormones, buffer systems, hemoglobin oxygenation factors, and red blood cell metabolism in their professional activities

### **Biology**

**Knowledge:** the laws of genetics and its importance for medicine; the patterns of heredity and variability in individual development as the basis for understanding the pathogenesis and etiology of hereditary and multifactorial diseases; the biosphere and ecology, the phenomenon of parasitism and bioecological diseases

**Skills:** analyze patterns of heredity and variability in the development of diseases of internal organs and occupational diseases.

**Skills:** applies knowledge of the laws of genetics and its importance for medicine; the patterns of heredity and variability in individual development as the basis for understanding the pathogenesis and etiology of hereditary and multifactorial diseases in their professional activities

## Normal physiology

**Knowledge** : physiology of the cardiovascular, digestive, urinary, respiratory and hematopoietic systems in normal conditions

**Skills:** analyze the importance of regulation of biological processes in the human body on the functioning of the cardiovascular, digestive, urinary, respiratory, and hematopoietic systems.

**Skills:** applies knowledge of the physiology of the cardiovascular, digestive, urinary, respiratory and hematopoietic systems in their professional activities

### Topographic anatomy, operative surgery

**Knowledge**: structure, topography of cells, tissues, organs and systems of the body in interaction with their function in normal and pathological conditions

**Skills**: analyze the functional features of the cardiovascular, respiratory, digestive, urinary, and hematopoietic systems in normal and pathological conditions.

**Skills:** applies knowledge about the structure, topography of cells, tissues, organs and systems of the body in interaction with their function in norm and pathology in their professional activities

### Pathophysiology, clinical pathophysiology

**Knowledge:** morphological changes in body tissues in pathologies of the cardiovascular, respiratory, digestive, urinary and blood systems

**Skills:** determine the contribution of pathophysiological processes to the development of diseases of internal organs.

**Skills:** applies knowledge of morphological changes in body tissues in pathologies of the cardiovascular, respiratory, digestive , urinary and blood systems in their professional activities

### **Pharmacology**

Knowledge: pharmacokinetics, pharmacodynamics, side effects of various drugs on the

### body

Skills: write prescriptions for prescribed medications, know the indications and contraindications for their use.

**Skills:** applies knowledge of pharmacokinetics, pharmacodynamics , and side effects of various drugs on the body in his/her professional activities

### **Propaedeutics of internal diseases**

**Knowledge:** collection of complaints, anamnesis, objective methods of examination of patients (palpation, percussion, auscultation

**Skills**: conduct anamnestic and physical examination, identify the main syndromes and symptoms of diseases of internal organs.

**Skills:** applies knowledge of collecting complaints, anamnesis, objective methods of examining patients (palpation, percussion, auscultation) in his professional activities

### Public health and healthcare, health economics

**Knowledge:** Fundamentals of the Russian Federation legislation on public health protection, key regulatory and technical documents; population health indicators, factors shaping human health (environmental, professional, natural and climatic, endemic, social, epidemiological, psycho-emotional, professional, genetic)

**Skills:** plan, analyze, and evaluate the quality of medical care, the health status of the population, and the impact of environmental and occupational factors; calculate medical statistics.

**Skills:** applies knowledge of the fundamentals of the Russian Federation legislation on public health protection, the main regulatory and technical documents; population health indicators, factors that shape human health (environmental, professional, natural and climatic, endemic, social, epidemiological, psycho-emotional , professional, genetic) in their professional activities

### Pathological anatomy, clinical pathological anatomy

**Knowledge:** etiology, pathogenesis, morphogenesis, pathomorphosis of disease, principles of disease classification; structural and functional bases of diseases and pathological processes; causes, mechanisms of development and outcomes of typical pathological processes.

**Skills:** visually assess and record changes in the organs and tissues of a corpse, substantiate the nature of the pathological process and its clinical manifestations; provide an opinion on the cause of death and formulate a pathological diagnosis;

**Skills:** applies knowledge of the etiology, pathogenesis, morphogenesis, pathomorphosis of disease, principles of disease classification; structural and functional bases of diseases and pathological processes; causes, mechanisms of development and outcomes of typical pathological processes in their professional activities

### **Emergency conditions in therapy**

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of emergency conditions in therapy

**Skills:** diagnose an urgent condition under the main therapeutic conditions, formulate and justify a clinical diagnosis, conduct a differential diagnosis and provide emergency care.

**Skills:** applies knowledge of the etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of emergency conditions in their professional activities

### **Faculty therapy**

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of major diseases of the respiratory, cardiovascular, digestive, urinary and hematopoietic systems

**Skills:** formulate and justify a clinical diagnosis, prescribe an examination and treatment plan for the main therapeutic diseases, diagnose an urgent condition and provide emergency care.

**Skills:** applies knowledge of the etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of major diseases of the respiratory, cardiovascular, digestive, urinary and hematopoietic systems in their professional activities

### Hospital therapy

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of major diseases of the respiratory, cardiovascular, digestive, urinary and hematopoietic systems

**Skills:** formulate and justify a clinical diagnosis, prescribe a plan for examination of one's professional activity and treatment for the main therapeutic diseases

**Skills:** applies knowledge of the etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of major diseases of the respiratory, cardiovascular, digestive, urinary and hematopoietic systems in their professional activities

### 1. 7. Interdisciplinary links with subsequent disciplines/practices

Knowledge and skills acquired during the course of studying the module and necessary for studying subsequent disciplines and practices:

No.	Name of subsequent	Module "Oncological diseases,
	disciplines	oncoprophylaxis , palliative care''
1.	Clinical pharmacology	+
2.	Forensic medicine	+
3.	Outpatient therapy	+
4.	Hospital therapy	+

# 1.8. Requirements for the results of the internship

Mastering the module "Oncological diseases, oncological prevention, palliative care" is aimed at the formation and improvement of the following universal ( UC ), general cultural (GPC) and professional competencies (PC): UC -1, UC -6, GPC-1, 5, 8, PC-1, PC-2, PC-4, PC-5, PC-6, PC-9, PC-14.

No.	Code and name of	Code	As a result of studying the academic discipline, the student must:		
p/p	competence	and the name of the indicator of achievement of competence	Know	Be able to	To own
		Universal co	ompetencies		
1	UC -1 Capable realize critical analysis of problematic situations based on a systems approach, to develop strategy of action	AI UC-1.1.  Analyzes a problem situation as a system, identifying its components and the connections between them.  AI UC-1.2.  Identifies gaps in information needed to solve problem situations and designs processes to eliminate them.  AI UC-1.3.  Applies systems analysis to resolve problematic situations in the professional sphere.	Concepts, principles and methods of self-development, self-realization, self-education, and the use of creative potential	Use the principles and methods of self-development, self-realization, self-education, and the use of creative potential	Methods of self- development, self- realization, self- education, and the use of creative potential
2	UC -6 Capable to identify and implement priorities for one's own activities and ways to improve them based on self-assessment and lifelong learning	AI UC -6.1. Assesses his personal, situational and time resources and uses them optimally to complete the assigned task.	Principles of using information, bibliographic resources, information and communication technologies, taking into account the basic requirements of information security, medical and biological terminology.	Use information, bibliographic resources, and information and communication technologies taking into account the basic requirements of information security	Methods for solving standard professional tasks using information and bibliographic resources, medical and biological terminology, information and communication technologies, and taking into account the basic requirements of

					information security
		<b>_</b>	onal competencies		
3	GPC-1. Able to implement moral and legal norms, ethical and deontological principles in professional activities	AI GPC-1.1. Provides professional services activities in accordance with ethical standards and moral principles.  AI GPC-1.2. Organizes professional activities guided by legislation in the field of healthcare, knowledge of medical ethics and deontology.  AI GPC-1.3. Has presentation skills independent point of view, analysis and logical thinking, public speaking, moral and ethical argumentation, conducting discussions and round tables, principles of medical deontology and medical ethics.	Principles of using information, bibliographic resources, information and communication technologies, taking into account the basic requirements of information security, medical and biological terminology.	Use information, bibliographic resources, and information and communication technologies taking into account the basic requirements of information security	biological terminology,
4	GPC-5. Capable of assessing morphofunctional, physiological states and pathological processes in the human body to solve professional problems	AI GPC -5.2.	Methods for analyzing the results of one's own activities. Concept and types professional mistakes.	Analyze the results of your own activities to prevent professional mistakes	

		Knows the indicators morphofunctional, physiological state of a healthy person and is able to measure/determine them.  AI GPC-5.4. Applies indicators morphofunctional, physiological state and pathological process for examination of the human body for the purpose of establishing a diagnosis, appointment treatment and monitoring of its effectiveness and security.  AI GPC-5.5. Analyzes and interprets macroscopic and microscopic changes in normal and pathologically altered tissues and organs.  AI GPC-5.6. Interprets the results of biopsy and surgical			
	GPC-8.	AI GPC-8.1.	Drug nomenclature,	Use medications and	Methods of using drugs
5	Capable of implementing and monitoring the effectiveness of medical rehabilitation of a patient, including the implementation of individual rehabilitation	Assesses the functional	pharmacodynamics, pharmacokinetics, indications and contraindications, primary mechanisms of action, and clinical effects. Treatment	other substances and their combinations when solving professional problems	and other substances and their combinations in solving professional problems
	and habilitation programs	Identifies risk groups with the aim of	regimens.		

	for people with disabilities, and assessing the patient's ability to perform work activities	recovery and determination of rehabilitation potential for subsequent restorative treatment and rehabilitation of patients.  AI GPC-8.3.  Develops and organizes a plan medical events rehabilitation of patients, including non-drug methods treatment (natural healing factors, physiotherapy and reflexology, therapeutic exercise).  AI GPC-8.4.  Interprets the results clinical, laboratory and instrumental diagnostic methods to monitor the effectiveness of medical rehabilitation programs and assess the patient's ability to perform work activities.			
6	GPC-11 Capable prepare and apply scientific, scientific- industrial, design, organizational- managerial and regulatory documentation in the healthcare system	AI GPC 11.1.  Applies modern methods of collecting and processing information, conducts statistical analysis of the obtained data in a professional manner areas and interprets results for solving professional problems.  AI GPC-11.2.  Identifies and analyzes problematic situations, carries out search and selection of scientific, regulatory and legal organizational and administrative documentation in accordance with	Types and methods of use of medical devices provided for by the procedures for providing medical care in oncology	Use medical devices as provided for by the procedures for providing medical care	Methods of using medical devices provided for by the procedures for providing medical care

8	PC-1 Able to provide medical care in urgent and emergency situations	AI PC - 1.1. emergency medical care AI PC -1.2. Provides emergency medical care to patients with sudden acute illnesses, conditions, and exacerbations of chronic diseases without obvious signs of a threat to the patient's life. AI PC -1.3. Identifies conditions that require provision of medical care in an emergency form AI PC - 1.4.	Principles and methods for maintaining and strengthening children's health, including the formation of a healthy lifestyle, prevention of the occurrence and (or) spread of diseases, their early diagnosis, identification of the causes and conditions of their occurrence and	To implement a set of measures aimed at preserving and strengthening the health of children and including the formation of a healthy lifestyle, the prevention of the occurrence and (or) spread of diseases, their early diagnosis, the identification of the causes and conditions	A set of measures aimed at maintaining and strengthening the health of children and including the formation of a healthy lifestyle, the prevention of the occurrence and (or) spread of diseases, their early diagnosis, the identification of the causes and conditions of their occurrence and
8		AI PC -1.3. Identifies conditions that require provision of medical care in an emergency form	spread of diseases, their early diagnosis, identification of the	occurrence and (or) spread of diseases, their early diagnosis, the identification of the	spread of diseases, their early diagnosis, the identification of the

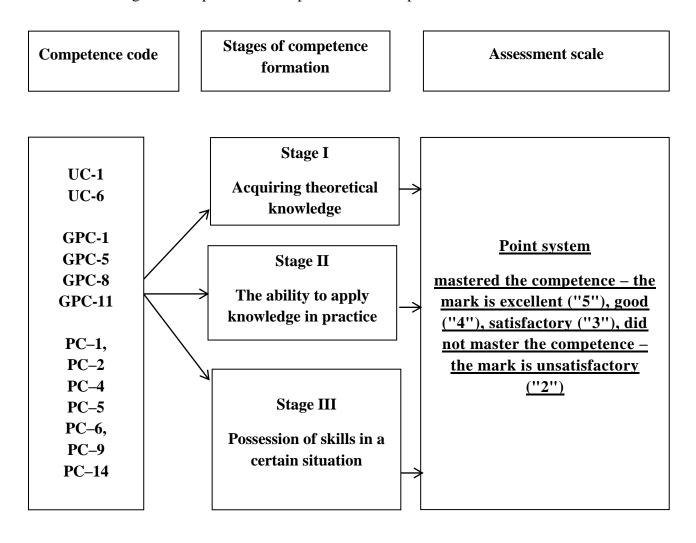
	PC-2. Capable of collecting and analyzing complaints, life history and anamnesis diseases patient for the purpose establishments	sudden termination circulation and respiration  AI PC - 1.6.  Carries out basic activities cardiopulmonary resuscitation in in combination with electropulse therapy (defibrillation) in case of clinical death of the patient (in case of sudden cessation of circulation and/or respiration).  AI PC -2 .1.  Establishes rapport with the patient.  AI PC -2 .2.  Collects complaints, specifies them, highlighting the main and secondary ones.  AI PC -2 .3.  Collects and analyzes information about	A method for collecting and analyzing patient complaints, data from his anamnesis, results of examination, laboratory, instrumental, pathological and other	Collect and analyze patient complaints, medical history data, examination results, laboratory, instrumental, pathological and other studies in order to	Methods of collecting and analyzing patient complaints, data from his anamnesis, results of examination, laboratory, instrumental, pathological
9	diagnosis	the onset of the disease, the presence of risk factors, the dynamics of symptom development and the course of the disease.  AI PC -2 .4.  Analyzes the timing of the first and repeated requests for medical care, the volume of therapy administered, and its effectiveness.  AI PC -2 .5.  Collects and evaluates information about the patient's medical history, including data on past illnesses, injuries and surgeries, hereditary, professional, and epidemiological history.	studies in order to recognize a condition or establish the presence or absence of a disease	recognize the condition or establish the presence or absence of a disease	anatomical and other studies in order to recognize the condition, or establish the fact of the presence or absence of a disease

	PC-4. Capable determine indications for hospitalization, indications for the provision of emergency, including emergency specialized, medical care	AI PC-4.1.  Determines medical indications for emergency care, including emergency specialized medical care  AI PC-4.2.  Refer the patient for specialized medical care in an inpatient setting or in a day hospital setting if there are medical	principles for providing primary health care to children with sudden, acute eye diseases, conditions, exacerbation of chronic eye diseases that are not	sudden, acute eye diseases, conditions, exacerbation of chronic eye diseases that are not accompanied by a threat to the patient's	primary health care to children with sudden, acute eye diseases, conditions, exacerbation of chronic eye diseases that are not accompanied by a
10		indications in accordance with the current procedures for providing medical care, clinical guidelines (treatment protocols) on issues of providing medical care, taking into account the standards of medical care  AI PC-4.3.  Uses medical devices in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) on issues of providing medical care, care taking into account the standards of medical care	accompanied by a threat to the patient's life and do not require emergency medical care	life and do not require emergency medical care	threat to the patient's life and do not require emergency medical care
11	PC-5. Able to prescribe treatment to patients	AI PC -5. 1.  Draws up a treatment plan for the patient taking into account the diagnosis, age of the patient, clinical picture of the disease, presence of complications, concomitant pathology, in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on issues of providing medical care, taking into account the standards of medical care  AI PC -5. 2.	A method for collecting and analyzing patient complaints, his anamnesis data, examination results, laboratory, instrumental, pathological - anatomical and other studies in order to recognize a condition or establish the presence	patient complaints, medical history data, examination results, laboratory, instrumental, pathological and other studies in order to recognize the condition or establish the presence or absence of	Methods of collecting and analyzing patient complaints, data from his anamnesis, results of examination, laboratory, instrumental, pathological - anatomical and other studies in order to recognize the condition, or establish the fact of

		Prescribes medications, medical devices	or absence of a disease		the presence or absence
		and therapeutic nutrition taking into			of a disease
		account the diagnosis, age and clinical			
		picture of the disease in accordance with			
		the current procedures for the provision			
		of medical care,			
		clinical guidelines,			
		taking into account the standards of			
		medical care			
		AI PC -5. 3.			
		Prescribes non-drug treatment			
		treatment taking into account the			
		diagnosis, age and clinical picture of the			
		disease in accordance with current			
		procedures for the provision of medical			
		care, clinical guidelines,			
		taking into account medical standards			
		help			
		AI PC -5. 4.			
		Provides palliative care in collaboration			
		with specialist doctors and other			
		healthcare professionals			
		AI PC -5. 5.			
		Provides personalized treatment to			
		patients, including pregnant women,			
	DC (	elderly patients, and the elderly.	m	D' 1	26.1.1.6.11
	PC-6.	AI PC -6.1.	The main pathological		
	Capable of monitoring	•	conditions, symptoms,	pathological conditions,	1
12	the effectiveness and	$\mathcal{E}$ ,	syndromes of malignant	symptoms, malignant	· -
12	safety of the therapy	therapeutic nutrition and other treatment methods	neoplasms, nosological	neoplasms, and	disease syndromes, and
	being administered	AI PC-6.2.	forms in accordance with the International	nosological forms in accordance with ICD-	nosological forms in accordance with ICD-
				10	10
		Takes into account the	Statistical Classification	10	10

13	PC-9.  A method for conducting preventive medical examinations, clinical examinations and implementing clinical observation of patients with chronic diseases	medical examinations taking into account age, health status, profession in accordance with current regulatory legal acts and other documents  AI PC 9.2.	of Diseases and Related Health Problems in accordance with ICD- 10  Principles of management and treatment of patients with various nosological forms in outpatient and day hospital settings	Treat patients with various nosological forms in outpatient and day hospital settings	Methods of management and treatment of patients with various nosological forms in outpatient and day hospital settings
14	PC-14. Capable of participating in research activities	AI PC -14. 1.  Participates in scientific research research  AI PC -14. 2.  Analyzes medical information based on evidence-based medicine  AI PC -14.3  Implements into practice  Healthcare: new methods and techniques aimed at protecting the health of the adult population	Principles of Analysis and Public Presentation of Medical Information. Fundamentals of Evidence-Based Medicine	Analyze and publicly present medical information based on evidence-based medicine	Methods of analyzing and publicly presenting medical information. Fundamentals of evidence-based medicine

### 1.9. Stages of competence development and description of assessment scales



### 2. Structure and content of practice

## 2.1 Scope of practice

Scope of practice	
Total labor intensity in hours, total	431
Labor intensity in hours of the Module " Oncological	36 hours
diseases, cancer prevention, palliative care"	
Total workload in credit units, total	12 z.e.
Type of intermediate assessment	Credit with grade

### 2.2. Type of practice

### **Type of practice - industrial**.

Industrial internship is a mandatory part of the curriculum, directly focused on students' professional and practical training. During the program, students are encouraged to master a set of required practical skills.

### 2.3. Criteria for assessing students' knowledge

The assessment of learning outcomes is carried out in accordance with the "Regulations on the system for assessing the learning outcomes of students of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy of the Ministry of Health of the Russian Federation".

The basis for determining the level of knowledge, skills, and abilities are the assessment criteria - completeness and correctness:

- correct, precise answer;
- correct, but incomplete or inaccurate answer;
- incorrect answer;
- no answer.

When assigning marks, the classification of errors and their quality are taken into account:

- -gross errors;
- similar errors;
- minor errors;
- shortcomings.

### Criteria for assessing the theoretical part

- "5" for the depth and completeness of mastery of the content of the educational material, in which the student can easily navigate, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present their answer competently and logically.
- "4" the student has fully mastered the educational material, is oriented in it, and expresses his answer competently, but the content and form contain some inaccuracies.
- "3" the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, and does not know how to express and justify his judgments.
- "2" the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and the secondary, makes mistakes in defining concepts, distorts their meaning, and presents the material in a disorderly and uncertain manner.

### Test control evaluation criteria

- "5" when testing, up to 10% of incorrect answers are allowed.
- "4" allows up to 20% of incorrect answers during testing.
- "3" allows up to 30% of incorrect answers during testing.
- "2" during testing, more than 30% of incorrect answers are allowed.

### Criteria for assessing the practical part

- "5" the student has fully mastered the practical skills and abilities provided for in the work program of industrial practice.
- "4" the student has mastered the practical skills and abilities provided for in the work program of industrial practice, but allows for some inaccuracies.
- "3" the student has only some practical skills and abilities.
- "2" the student has only some practical skills and abilities and performs them with gross errors.

### Interim assessment (test lesson) on a five-point scale

The midterm assessment is conducted by a practice commission consisting of a course supervisor from the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy and a practice supervisor from a medical organization.

- "5" (excellent) for the depth and completeness of the student's understanding of the course material, which the student navigates easily, for their ability to connect theoretical and practical questions, express and justify their judgments, and present their answers clearly and logically; Allows up to 10% incorrect answers during testing. The practical skills and abilities required by the internship program have been fully mastered.
- "4" good the student has fully mastered the course material, is familiar with it, and presents answers clearly, but the content and format contain some inaccuracies; during testing, the student makes up to 20% incorrect answers. The student has fully mastered the practical skills and abilities required for the course, but makes some inaccuracies.
- "3" (satisfactory) the student has mastered the knowledge and understanding of the main concepts of the course material, but presents it incompletely and inconsistently, and is unable to express and justify their judgments; during testing, the student makes up to 30% incorrect answers. The student possesses only some practical skills and abilities.
- "2" (unsatisfactory) the student has a fragmented and unsystematic knowledge of the course material, is unable to distinguish between essential and non-essential concepts, makes errors in defining concepts, distorts their meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% incorrect answers during testing. The student performs practical skills and abilities with significant errors.

### 3. Educational, methodological, logistical and informational support for practice

### 3.1 Main literature

### 3.2 Further reading

MAIN LITERATURE:	Source link
1. Trufanov, G. E. Radiation therapy (radiotherapy) / G. E.	http://www.studmedlib.ru/book/I
Trufanov [et al.]; edited by G. E. Trufanov - Moscow:	SBN9785970444207.html
GEOTAR-Media, 2018 208 p ISBN 978-5-9704-4420-	
7. Access mode: by subscription.	
2.Cherenkov, V. G. Oncology: textbook / V. G. Cherenkov.	http://www.studmedlib.ru/book/I
- 4th ed., espr. and additional Moscow: GEOTAR-	SBN9785970455531.html
Media, 2020 512 p.: ill 512 p ISBN 978-5-9704-	
5553-1. Access mode : by subscription.	
3.Davydov, M. I. Oncology: textbook / M. I. Davydov, Sh.	http://www.studmedlib.ru/book/I
H. Gantsev [et al.] Moscow: GEOTAR Media, 2020	SBN9785970456163.html
920 p.: ill 920 s ISBN 978-5-9704-5616-3. Access	
mode : by subscription.	
ADDITIONAL REFERENCES:	
1. Gorbunova, V. A. Neuroendocrine tumors. General	http://www.studmedlib.ru/book/I
principles of diagnosis and treatment: a practical guide /	SBN9785970459973.html
edited by V. A. Gorbunova Moscow: GEOTAR-Media,	

2021 600 p ISBN 978-5-9704-5997-3 Text: electronic	
(accessed: 05.05.2021) Access mode: by subscription.	
2. Gancev, SH Skin cancer. Melanoma / Gancev SH,	http://www.studmedlib.ru/book/I
Kzyrgalin SH, Timin KE Moscow: GEOTAR-Media,	SBN9785970456583.html
2020 160 p. (Series "Oncology") - ISBN 978-5-9704-	
5658-3 Text: electronic (date accessed: 05.05.2021)	
Access mode: by subscription.	

# ${\bf 3.3.}$ Educational and methodological support for practice prepared by the department staff

- 1. O.V. Lysenko. Methodological guidelines for teachers for conducting practical classes on the fundamentals of oncology. Blagoveshchensk. 2017. 12 p.
- 2. T.N. Korobkova. Methodological recommendations for students for practical classes in the oncology course. Blagoveshchensk. 2017. 9 p.
- 3. O. V. Lysenko. Lecture notes on oncology. Blagoveshchensk. 2015. 20 p.
- 4. V.P. Gordienko. Methodological recommendations "Independent work of students on the course of oncology". Blagoveshchensk. 2016. 4 p.
- 5. T. N. Korobkova. Tutorial for writing a medical history of an oncology patient. Blagoveshchensk. 2016. 4 p.
- 6. O. V. Lysenko, O. A. Mazharova. Study guide "The thyroid gland and its diseases". Blagoveshchensk. 2014. 30 p.
- 7. V.P. Gordienko. Study guide "Lung tumors. Mediastinal neoplasms". Blagoveshchensk. 2015. 4 p.
- 8. O. V. Lysenko. Study guide "Diseases of the mammary gland". Blagoveshchensk. 2015. 10 p.
- 9. Sets of situational problems by topic
  - breast tumors
  - thyroid tumors
  - skin tumors
  - malignant lymphomas
  - tumors of the kidneys and retroperitoneal space
  - childhood tumors
  - deontology in pediatric oncology

### 3.4. Material and technical base for conducting internship

Discipline		Names of classroom equipment	Square	Number of seats	Address of classrooms
Oncology		Two oncology and radiation therapy training rooms. Basic equipment: whiteboard, tables and chairs, bookcase, wall-mounted screen, multimedia projector, laptop; visual aids, display stands.	(sq.m.) 48	24	675006, Amur Region, Blagoveshchensk, Oktyabrskaya St., Building 110, 1st floor, Room No. 53
		Department equipment used	for teachin	g students	
1		ACER laptop and Epson video pro	ojectorEMP	-X5	1
2		X-ray television complex KF	RT "OKO"		1
3	Mamm	ograph "Elektronika"; mammograj	ph " Mamm	odiagnost "	2
4		Philips BigBore 16- slice C	Γ scanner		1
5	Single-	photon emission computed tomographoton 101043	raphy scann	er Medisco	1
6		Mindray DC 8 Expert Ultrasou	and Scanner		1
7		Negatoscope			3
		Multimedia materials,	electronic li	brary	
1	www.m	nedlib . ru - student advisor			
2	MD Con	sul - First Consult			
3	Database	e "Medicine"			
4	Polpred	. com – media review			
5	Electron	ic Business Encyclopedia "Medica	l Manageme	ent"	
6	Computerized knowledge test on topics covered in practical classes a			and lectures	
P	Photo and video materials				
1	Microph	otographs (slides):			
	Malignar	nt neoplasms of the skin and soft ti	ssues		
	Breast cancer				

	Stomach cancer
2	Presentations of lectures and practical classes:
	"General Oncology Issues. Structure and Organization of Cancer Care in the Russian Federation"
	Epithelial tumors of the skin
	"Melanoma"
	Breast cancer
	- radiation mastectomy syndrome
	Lung cancer
	Hodgkin's disease
	Stomach cancer
	Lung cancer
	Emergency Conditions in Oncology
	Chemotherapy for malignant tumors
	Esophageal cancer
	Colorectal cancer
3	Videos:
	Biopsy techniques
	Breast surgery
	Thyroid Cancer Surgery
	Methods of isotope examination of patients with thyroid cancer
	Endoscopic surgery for tumors of the lung and mediastinum
	Other visual aids
1	Thematic stands:
	Lung cancer
	Stomach cancer
	Breast cancer

Chemotherapy of malignant neoplasms

The Structure of Cancer Care in the Russian Federation

# 3.5. Professional databases, information and reference systems, electronic educational resources

Ite m No.	Name resource	Resource Description	Access	Resource address			
	Electronic library systems						
1.	"Student Consultant" Electronic Library of the Medical University.	For students and faculty of medical and pharmaceutical universities.  Provides access to electronic versions of textbooks, teaching aids, and periodicals.	library, individual access	http://www.studmedlib.ru/			
2.	"Doctor's Consultant" Electronic Medical Library.	The materials in the library were developed by leading Russian specialists based on modern scientific knowledge (evidence-based medicine). The information was prepared taking into account the position of the scientific and practical medical community (global, European, and Russian) in the relevant specialty. All materials have undergone mandatory independent peer review.	library, individual access	http://ww w.rosmedl ib.ru/cgi- bin/mb4x			
3.	PubMed	MedLine, the largest medical bibliographic database. It documents medical and biological articles from specialized literature and provides links to full-text articles.	library, free access	https://pub med.ncbi. nlm.nih.go v/			
4.	OxfordMedicine Online.	A collection of Oxford Press medical publications, bringing together over 350 titles into a single, crosssearchable resource. Publications include The Oxford Handbook of Clinical Medicine and The Oxford Textbook of Medicine, the electronic versions of which are constantly updated.	library, free access	http://www. oxfordmedi cine.com			

Human Biology   Cell biology , genetics , biochemistry , immunology , and pathology . (Source: Institute of Molecular Genetics, Russian Academy of Sciences .)    Free reference books, encyclopedias, books, monographs, essays, Englishlanguage literature, tests.   http://med.dib.nr/.		T	T	T	Т
Books, monographs, essays, English language literature, tests.   Bibrary, free access	5.		biochemistry , immunology , and pathology . (Source: Institute of Molecular Genetics, Russian		-
Russian Medical Association  The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.  Databases  The site contains news, statistics on countries that are members of the World Health Organization, fact sheets, reports, WHO publications, and much more.  The website of the Ministry of Science and Higher Education of the Russian Federation  Federation  A professional internet resource. Purpose: to facilitate the effective professional medical personnel. Contains the charter, personnel, library, free access  http://www.mmass.ru    http://wwbmed. inkutsk.ru/	6.		books, monographs, essays, English-		
Russian Medical Association  Russian Medical Association  Purpose: to facilitate the effective professional activities of medical personnel. Contains the charter, personnel,  Structure, rules of entry, information about the Russian Medical Union.  The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.  Databases  D. Worldwide World Health Organization, fact sheets, reports, WHO publications, and much more.  The website of the Ministry of Science and Higher Education of the Russian Federation  The website of the Ministry of Science and Higher Education of the Russian Federation enws, publications and much more.    Database   Databa			Information systems		
Web medicine professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.  Databases  D. Worldwide healthcare organization Professional much more.  The website of the Ministry of Science and Higher Education of the Russian Federation  The website of the Ministry of Science and Higher Education of the Russian newsletters, reports, publications and much more.  The website of the Ministry of Science and Higher Education of the Russian newsletters, reports, publications and much more.  The website of the Ministry of Science and Higher Education of the Russian Federation contains news, newsletters, reports, publications and much more.	7.		Purpose: to facilitate the effective professional activities of medical personnel. Contains the charter, personnel,  Structure, rules of entry, information about the Russian Medical Union.	_	w.rmass.ru
Worldwide Countries that are members of the World Health Organization, fact sheets, reports, WHO publications, and much more.  The website of the Ministry of Science and Higher Education of the Russian Federation  The website of the Ministry of Science and Higher Education contains news, newsletters, reports, publications and much more.  The website of the Ministry of Science and Higher Education of the Russian Federation contains news, newsletters, reports, publications and much more.	8.	Web medicine	professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and	_	//webmed.
Worldwide health Organization, fact sheets, reports, WHO publications, and much more.  Ministry of Science and Higher Education of the Russian Federation  The website of the Ministry of Science and Higher Education contains news, newsletters, reports, publications and much more.  Ibrary, free access  http://www.w.who.int/ru/  The website of the Ministry of Science and Higher Education of the Russian Federation contains news, newsletters, reports, publications and much more.			Databases		
Ministry of Science and Higher Education of the Russian Federation contains news, of the Russian Federation newsletters, reports, publications and much more.  Ministry of Science and Higher Education of the Russian Federation of the Russian library, free access minobrnauking gov.ru	9.		countries that are members of the World Health Organization, fact sheets, reports, WHO publications,	_	w.who.int/
11. Ministry of Education The website of the Ministry of library, free <a href="https://edu">https://edu</a>	10.	and Higher Education of the Russian	and Higher Education of the Russian Federation contains news, newsletters, reports, publications and	_	<u>minobrnauki</u>
	11.	Ministry of Education	The website of the Ministry of	library, free	https://edu

	of the Russian Federation.	Education of the Russian Federation contains news, newsletters, reports, publications, and much more.	access	.gov.ru/
12.	Federal Portal "Russian Education"	A single point of access to educational resources. This portal provides access to textbooks on all areas of medicine and healthcare.	library, free access	http://www.edu.ru/ http://windowedu.ru/catalog/?prubr=2.2.81.1
		Bibliographic databases		
13.	BD Russian Medicine	Created at the Central Scientific and Methodological Library, it covers the entire collection since 1988. The database contains bibliographic descriptions of articles from Russian journals and collections, dissertations and their abstracts, as well as Russian and foreign books, institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related fields of biology, biophysics, biochemistry, psychology, etc.	library, free access	http://ww w.scsml.rs si.ru/
14.	eLIBRARY.RU	A Russian information portal in science, technology, medicine, and education, containing abstracts and full texts of over 13 million scientific articles and publications. The eLIBRARY.RU platform offers electronic versions of over 2,000 Russian scientific and technical journals, including over 1,000 openaccess journals.	library, free access	http://elibrar y.ru/defaultx .asp
15.	Portal  Electronic library of dissertations	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	library, free access	http://diss. rsl.ru/?me nu=disscat alog/

16.	Medline.ru	Biomedical portal for specialists. Biomedical journal. Last updated February 7, 2021.	library, free access	http://ww w.medline _ru

# 3.6. Licensed and freely distributed software used in the educational process

	I. Commercial software products				
1.	MS Windows 7 Pro operating system	License number 48381779			
2.	Operating system: MS Windows 10 Pro, MS Office	AGREEMENT No. 142 A dated December 25, 2019			
3.	MS Office	License numbers: 43234783, 67810502, 67580703, 64399692, 62795141, 61350919			
4.	Kaspersky Endpoint Security for Business Advanced	Agreement No. 977/20 dated 12/24/2020			
5.	1 C: PROF University	LICENSE AGREEMENT No. 2191 dated October 15, 2020			
6.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated November 11, 2020			
	II. Freely distr	ibuted software			
1.	Google Chrome	Freely distributed  Distribution Terms: <a href="https://play.google.com/about/play-terms/index.html">https://play.google.com/about/play-terms/index.html</a>			
2.	Yandex Browser	Freely distributed  License Agreement for the Use of Yandex Browser Software  https://yandex.ru/legal/browser_agreement/			
3.	Dr.WebCureIt!	Freely distributed  License Agreement: https://st.drweb.com/static/new- www/files/license_CureIt_ru.pdf			
4.	OpenOffice	Freely distributed  License: <a href="http://www.gnu.org/copyleft/lesser.html">http://www.gnu.org/copyleft/lesser.html</a>			

		Free Distributable
5.	LibreOffice	License: <a href="https://en.libreoffice.org/about-us/license/">https://en.libreoffice.org/about-us/license/</a>

### 3.7. Resources of the information and telecommunication network "Internet"

https:// <u>www.rosminzdrav.ru</u>/ministry/61/22/page-979/page-983/1-standardty-primary-medic about - sanitarnoy-pomoschi

https:// <u>www.rosminzdrav.ru</u>/ministry/61/22/page-979/page-983/2standardty-specialized-medical-aid

https:// <a href="www.rosminzdrav.ru">www.rosminzdrav.ru</a> /ministry/61/4/stranitsa857/poryadki-okazaniya-meditsinskoy-pomoschi-naseleniyu-rossiyskoy-federatsii

http://www.femb.ru\_Clinical guidelines)

### **EBS**

www . medlib . ru – student advisor

( http://www.amursma.ru/sveden/obiects/biblioteki/elektronnye-obrazovatelnye-resursy/)

### Professional databases, information reference systems, electronic educational resources

No p.p	Name resource	Resource Description	Access	Resource address
		Electronic library syste	ms	
1.	Student Consultant. Medical University Electronic Library	For students and faculty of medical and pharmaceutical universities. Provides access to electronic versions of textbooks, teaching aids, and periodicals.	library, individual access	http://www.studmedlib.ru/
2.	PubMed	MedLine, the largest medical bibliographic database. It documents medical and biological articles from specialized literature and provides links to full-text articles.	library, free access	http:// www. ncbi.nlm.nih . gov/ pubmed /
3.	Oxford Medicine Online	A collection of Oxford Press medical publications, bringing together over 350 titles into a	library, free access	http://www.oxfor dmedicine.com

		single, cross- searchable resource. Publications include The Oxford Handbook of Clinical Medicine and The Oxford Textbook of Medicine, the electronic versions of which are continually updated.			
		Information systems			
4.	Russian Medical Association	A professional online resource. Purpose: to promote the effective professional activities of medical personnel. Contains the charter, personnel, structure, membership rules, and information about the Russian Medical Union.	library, free access	http://www.rmass.	
5.	Web medicine	The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.	library, free access	http: //webmed.irkutsk. ru/	
		Databases			
6.	World Health Organization	The site contains news, statistics on countries that are members of the World Health Organization, fact sheets, reports, WHO publications, and much more.	library, freeaccess	http://www.who.i nt/ru/	
7.	Ministry of Education and Science of the Russian Federation	The official resource of the Ministry of Education and Science of the Russian Federation. The site contains news, newsletters, reports, publications, and much more.	library, free access	httn : //минобрнауки.р ф/	
8.	Federal Portal "Russian Education"	A single window for access to educational resources.  This portal provides access to textbooks on all areas of medicine and healthcare.	library, free access	http://www.edu.ru/  http://window.edu.ru/catalog/?p rubr=2.2.81.1	
Bibli	Bibliographic databases				

9.	Database "Russian Medicine"	Created at the Central Scientific and Methodological Library, it covers the entire collection since 1988. The database contains bibliographic descriptions of articles from Russian journals and collections, dissertations and their abstracts, as well as Russian and foreign books, institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related fields of biology, biophysics, biochemistry, psychology, etc.	library, access	free	http://www.scsml. rssi.ru/
10.	ELIBRARY.RU	A Russian information portal in the fields of science, technology, medicine, and education, containing abstracts and full texts of more than 13 million scientific articles and publications.  eLIBRARY.RU platform offers electronic versions of over 2,000 Russian scientific and technical journals, including over 1,000 open-access journals.	library, access	free	http://elibrary.ru/d efaultx.asp
11.	Portal Electronic Library of Dissertations	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	library, access	free	http://diss.rsl.ru/?menu=disscatalog/

### 4. Assessment Fund

# 4.1. Examples of test tasks for intermediate knowledge assessment

Testing is carried out in the Moodle system (http://194.186.41.210/course/index.php?categoryid=40) The total number of tests posted in the system is 200 tests.

# **1.** ARE PATIENTS WITH STOMACH ULCERS SUBJECT TO DYNAMIC MONITORING?

- A) no;
- B) always;
- B) for long-term ulcers.

# 2. CHARACTERISTIC MANIFESTATIONS OF INITIAL FORMS OF ESOPHAGEAL CANCER

- A) a feeling of scratching behind the breastbone or sticking when swallowing;
- B) hoarseness of voice;
- B) hypersalivation;
- D) dysphagia I II degrees.

### 3. TREATMENT OF LOCALIZED FORMS OF SOFT TISSUE SARCOMAS

- A) physiotherapy (including resorption);
- B) economical excision of the tumor;
- B) combination treatment;
- D) chemotherapy.

Answers: B, A, C

# **4.2.** List of practical skills that a student should have after completing the internship In the section on general oncology:

- 1. Collect anamnesis, analyze the nature of complaints (organ dysfunction, pain syndrome, pathological discharge, changes in general condition).
- 2. Conduct a physical and general clinical examination of an oncology patient, Analyze the data of the general clinical examination.
- 3. Conduct a physical examination of the primary tumor site, areas of regional and distant metastasis.
- 4. Establish a preliminary diagnosis of oncological disease.

Under the section on radiation therapy:

- 1. Formulate a preliminary diagnosis (with subsequent referral to a specialist).
- 2. Draw up a plan for clinical and instrumental examination of a patient with suspected malignant tumor.
- 3. Evaluate the results of instrumental research methods:

X-ray, endoscopic, radioisotope, ultrasound, CT and MRI, cytological and histological.

- 4. Compilation of topographic and dosimetric maps of radiation therapy.
- 5. Skills in operating equipment for remote and contact y-therapy, short-range, orthovoltage X-ray therapy, and a linear electron accelerator.
- 6. Providing emergency care for life-threatening complications associated with radiation therapy (acute respiratory distress, vascular collapse

In the section on private oncology:

- 1. To form groups of individuals at increased risk of developing malignant tumors.
- 2. Perform the most common medical procedures (diagnostic puncture and taking smears for cytological examination, etc.).
- 3. Complete the necessary documentation upon initial detection of a patient with a malignant neoplasm.
- 4. Conduct a clinical examination of a patient with suspected malignant neoplasm.

# 4.3. List of questions for the test

- 1. Features of the methodology for collecting and evaluating the life history of a patient with a tumor disease and the history of the tumor disease.
- 2. Features of the examination methodology for patients with tumor diseases, modern methods of drug and non-drug therapy for tumor diseases, in accordance with current clinical guidelines

(treatment protocols), procedures for providing medical care and taking into account the standards of medical care.

- 3. Rules for conducting diagnostic, therapeutic and preventive measures for tumor diseases.
- 3. Rules for providing palliative care for tumor diseases.

Rules for registration of medical documentation, including in electronic form, in medical organizations providing outpatient medical care to patients with tumor diseases.

# MODULE 6 "DETECTION OF TUBERCULOSIS IN THE GENERAL TREATMENT NETWORK"

### 1.2. Goals and objectives of practice.

The purpose of the internship is to develop and improve practical skills based on the consolidation of theoretical knowledge obtained during training in the organization and provision of anti-tuberculosis care, and the implementation of non-specific preventive work among individuals belonging to groups risk of tuberculosis.

The objectives of the internship are to develop a set of work actions and skills within the framework of mastering work functions: conducting medical examinations, screening and preventive examinations of the adult population for the purpose of early detection of tuberculosis, the main risk factors for its development, the formation of a healthy lifestyle and sanitary and hygienic education of the population.

# 1.3. The place of practice in the structure of the main professional educational program of higher education.

In accordance with the Federal State Educational Standard of Higher Education (FSES VO) – specialty 31.05.01 General Medicine (2020). The "Tuberculosis Detection in General Healthcare Network" module of the "General Practice" industrial practice course is part of the core component, Block 2. The total workload is 36 hours and is conducted in the 11th semester of the 6th-year student. Assessment is a credit test with a grade in the 11th semester .

### 1.4. Forms of practice control.

Intermediate control is used as a form of monitoring the completion of practical training, including testing, control of theoretical knowledge, and control of the acquisition of practical skills.

### 1.5. Internship reporting forms.

Industrial practice diary, individual assignment for industrial practice, calendar schedule for completing the practice .

### 1.6. Requirements for students.

To master the practiceknowledge, skills and abilities are required, formed by previous disciplines:

### Spiritual and moral aspects of medicine

**Knowledge:** moral and ethical standards, rules and principles of professional conduct of a physician, the rights of the patient and the physician, the main ethical documents regulating the

activities of a physician

**Skills:** build and maintain working relationships with patients and members of the medical institution team.

**Skills**: building working relationships with patients and the work team.

### Professional foreign language

**Knowledge**: basic medical and pharmaceutical terminology in a foreign language.

**Skills**: apply knowledge to communication and obtaining professional information from foreign sources.

**Skills:** application of language skills for communication and obtaining professional information from foreign sources.

### Histology, embryology, cytology

**Knowledge:**histological structure of tissues of the cardiovascular system in terms of influence on the electrophysiological properties of the heart

**Skills:** explain the relationship between changes in the ECG and the innervation and blood supply of the heart, the structure of cardiomyocytes and cells of the conduction system

**Skills:** explanation of the pathogenesis of changes on the ECG with the features of the structure, innervation and blood supply of the heart

### Physics, mathematics.

**Knowledge:** mathematical methods for solving intellectual problems and their application in medicine; theoretical foundations of computer science, search, storage, processing, transformation and distribution of information in medical systems; the use of information computer systems in medicine and healthcare; the operating principles and design of equipment used in medicine, the fundamentals of the physical foundations of methods used in functional diagnostics

**Skills:** use electronic search systems for educational and scientific literature, use programs for storing medical information, medical statistics programs, work with electrical equipment taking into account safety regulations.

**Skills:** use of electronic search systems for educational and scientific literature, use of programs for storing and searching medical documentation, medical statistics programs, work with an electrocardiograph and spirograph taking into account safety regulations

### **Biology**

**Knowledge:** the laws of genetics and their significance for medicine, the patterns of heredity and variability in individual development as the basis for a scientific understanding of the pathogenesis of hereditary and multifactorial heart diseases

**Skills:** analyze the role of heredity and variability in the development of heart disease, in particular, heart rhythm disorders

**Skills:** analysis of the role of hereditary factors and multifactorial mechanisms in the development of the studied pathological conditions of the heart and blood vessels

### Normal physiology

**Knowledge:**synaptic connections at the level of the heart and blood vessels and cardiac electrophysiology

**Skills**: analyze the importance of regulating biological processes in the body for the functioning of the cardiovascular system

**Skills:** analysis of the state of regulation of myocardial functions and electrophysiological processes in it and the cardiac conduction system in the studied pathological conditions

### Pathophysiology, clinical pathophysiology

**Knowledge:** morphological changes in tissuesorganism in case of cardiovascular pathology andrespiratory system

**Skills:** determine the contribution of pathophysiological processes to the development of cardiac pathology and its signs on the ECG

**Skills:** identifying possible causes of ECG changes in a given pathological condition from a pathophysiological perspective

### **Propaedeutics of internal diseases**

**Knowledge:** methods for collecting complaints and clarifying the anamnesis of the disease, physical examination of a patient with cardiac and vascular pathology

**Skills:** collect complaints and anamnesis, conduct a physical examination of the patient, identify the main clinical syndromes of heart disease, interpret the obtained data in conjunction with the results of functional and laboratory diagnostic methods

**Skills:** examining a patient with a cardiovascular disease, taking into account all the canons of propaedeutics of internal diseases, determining the diagnosis of the disease taking into account the examination data and additional diagnostic methods

### Public health and healthcare, health economics

**Knowledge:** Fundamentals of the Russian Federation legislation on public health protection, key regulatory and technical documents; population health indicators, factors shaping human health (environmental, professional, natural and climatic, endemic, social, epidemiological, psychoemotional, professional, genetic)

**Skills:** plan, analyze, and evaluate the quality of medical care, the health status of the population, and the impact of environmental and occupational factors; calculate medical statistics.

**Skills:** working with basic medical documentation of a hospital and clinic within the scope of duties of a department physician or general practitioner, organizing medical care and analyzing its quality for the population at the medical site, assessing the health status of the population and the impact of environmental and industrial factors on morbidity, calculating medical statistics

## **Emergency conditions in therapy**

**Knowledge:**Etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of emergency conditions in cardiology

**Skills:** diagnose the main urgent conditions in cardiology and pulmonology, formulate and justify a clinical diagnosis, conduct their differential diagnosis and provide emergency care.

**Skills:** diagnostics based on ECG data of emergency conditions in cardiology - acute myocardial infarction and its complications, rhythm and conduction disorders, differential diagnosis and provision of emergency care to patients with these changes

### Faculty therapy. Outpatient therapy.

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, principles of diagnosis, treatment and prevention of major cardiovascular diseases

**Skills:** identify and explain ECG signs of the heart diseases being studied, prescribe additional functional examination methods necessary to confirm them, formulate a clinical diagnosis of the diseases taking into account the data obtained

**Skills:** identifying and explaining the essence of ECG changes detected in patients with the heart diseases under study, prescribing additional functional examination methods necessary to confirm the diagnosis, formulating a clinical diagnosis of the disease taking into account the data obtained

# 1.7. Interdisciplinary connections of the module with subsequent disciplines/practices

Knowledge and skills acquired during the course of mastering the module and necessary for studying subsequent disciplines and practices:

No.	Name of subsequent disciplines	Module "Detection of Tuberculosis in the General Healthcare Network"
1.	Clinical pharmacology	+

2.	Forensic medicine	+
3.	Outpatient therapy	+
4.	Hospital therapy	+

# 1.8. Requirements for the results of mastering the practice

Mastering the module "Detection of tuberculosis in the general medical network" of the practice "Practice of the general medical profile" is aimed at the formation/improvement of the following competencies: universal (UC) - 1,4,6,7,9, general professional (GPC) - 1,2,4,5,6,7,8,10 and professional (PC) - 1,2,3,4,5,6,7,8,9,11.

Ite	UC code and name	Upon completion of t	the module "Otolaryngol	UC achievement indicator						
m		a Ped	liatrician", the student sh							
No.		know	be able to	own						
	Universal competencies									
1	Able to carry out a critical analysis of problematic situations based on a systems approach and develop an action strategy	Principles for implementing a critical analysis of problem situations based on a systems approach, principles for developing an action strategy	Conduct a critical analysis of problematic situations based on a systems approach and develop an action strategy	The ability to carry out a critical analysis of problem situations based on a systems approach, the ability to develop an action strategy	AI UC-1.1. Analyzes a problematic situation as a system, identifying its components and the connections between them.  AI UC-1.2. Identifies gaps in information needed to solve problem situations and designs processes to eliminate them.  AI UC-1.3. Applies systems analysis to resolve problematic situations in the professional field.  AI UC-1.4. Uses logical and methodological tools to critically evaluate contemporary philosophical and social concepts in their subject area.  AI UC-1.5. Critically evaluates the reliability of information sources and works with conflicting information from					
2	UC -4. Able to apply	Principles of	Apply modern	Ability to use	different sources. <b>AI UC -4.1.</b> Uses communicative and					
	modern communication	application of	communication	modern	linguistic tools to build effective					
	technologies, including	modern	technologies,	communication	partnerships with patients and colleagues;					
	in foreign language(s),	communication	including in foreign	technologies,	selects a communication style.					
	for academic and	technologies,	language(s), for	including in foreign	AI UC-4.2. Uses modern communication					

	professional interactions	including in foreign	academic and	language(s), for	resources to search, process, and transmit
		language(s), for	professional	academic and	information necessary for the effective
		academic and	interaction	professional	performance of professional tasks and the
		professional		interaction	achievement of professionally significant
		interaction			goals.
					<b>AI UC-4.3.</b> Compiles, translates from a
					foreign language into the state language of
					the Russian Federation and from the state
					language of the Russian Federation into a
					foreign language, edits various academic
					texts (abstracts, essays, reviews, articles,
					etc.).
					AI UC-4.4. Presents the results of
					academic and professional activities at
					various public events, including
					international ones, choosing the most
					appropriate format.
					AI UC-4.5. Defends their positions and
					ideas in a reasoned and constructive
					manner in academic and professional
					discussions in the official language of the
					Russian Federation and a foreign
					language.
3	UC -6.	Principles for	Identify and	The ability to	AI UC -6.1. Assesses personal,
	Able to identify and	defining and	implement priorities	identify and	situational, and time resources and uses
	implement priorities for	implementing	for one's own	implement	them optimally to complete assigned
	one's own activities and	priorities for one's	activities and ways to	priorities for one's	tasks.
	ways to improve them	own activities and	improve them based	own activities and	AI UC-6.2. Plans his/her activities within
	based on self-assessment	ways to improve	on self-assessment	ways to improve	the framework of professional tasks.
	and lifelong learning	them based on self-	and lifelong learning	them based on self-	AI UC-6.3. Conducts critical self-analysis
		assessment and		assessment and	of the results of one's own activities.
		lifelong learning		lifelong learning	AI UC-6.4. Identifies professional growth

					priorities and ways to improve one's own
					performance based on self-assessment
					against selected criteria.
4	UC -7.	Principles of	Maintain an adequate	The ability to	AI UC-7.1. Adheres to and promotes
	Able to maintain an	maintaining an	level of physical	maintain an	healthy lifestyle standards in various life
	adequate level of	adequate level of	fitness to ensure full	adequate level of	situations and in professional activities.
	physical fitness to ensure	physical fitness to	social and	physical fitness to	AI UC-7.2. Plans work and leisure time to
	full social and	ensure full social	professional	ensure full social	optimally balance physical and mental
	professional functioning	and professional	functioning	and professional	workload and ensure productivity.
		activity	_	activity	AI UC-7.3. Selects health-preserving
					technologies to support a healthy lifestyle,
					taking into account the physiological
					characteristics of the body.
5	<b>UC -9.</b> Able to apply	Principles of using	To use basic	The ability to use	AI UC -9.1. Has an understanding of the
	basic defectological	basic defectological	defectological	basic defectological	principles of non-discriminatory
	knowledge in social and	knowledge in social	knowledge in social	knowledge in social	interaction in communication in various
	professional spheres.	and professional	and professional	and professional	areas of life, taking into account the socio-
		spheres	spheres	spheres	psychological characteristics of
					individuals with disabilities.
					AI UC-9.2. Defines adequate methods for
					organizing joint professional activities
					with the participation of persons with
					disabilities.
	CDC 1		Seneral professional co	_ =	AL CROSS
6	GPC-1. Able to	Principles of using	Use information,	Methods for	AI GPC-1.1. Conducts professional
	implement moral and	information,	bibliographic	solving standard	activities in accordance with ethical
	legal norms, ethical and	bibliographic	resources, and	professional tasks	standards and moral principles.
	deontological principles	resources, information and	information and	using information	AI GPC-1.2 . Organizes professional activities, guided by healthcare
	in professional activities	communication and	communication technologies taking	and bibliographic resources, medical	activities, guided by healthcare legislation, knowledge of medical ethics,
		technologies, taking	into account the basic	and biological	and deontology.
		into account the	requirements of	terminology,	AI GPC-1.3. Skills in expressing an
		into account the	requirements of	terminology,	AI GIC-1.3. Skins in expressing an

		basic requirements of information security, medical and biological terminology.	·	information and communication technologies, and taking into account the basic requirements of information security	independent point of view, analytical and logical thinking, public speaking, moral and ethical argumentation, conducting discussions and roundtables, and understanding the principles of medical deontology and medical ethics.
7	GPC-2. Capable of conducting and monitoring the effectiveness of measures to prevent infectious and non-infectious diseases, promote healthy lifestyles, and educate the population about public health and hygiene.	Principles for conducting and monitoring the effectiveness of measures to prevent infectious and non-infectious diseases in children, the formation of a healthy lifestyle and sanitary and hygienic education of the population	Conduct and monitor the effectiveness of measures to prevent infectious and non- infectious diseases in children, promote a healthy lifestyle and educate the population about health and hygiene	The ability to conduct and monitor the effectiveness of measures to prevent infectious and non-infectious diseases in children, promote a healthy lifestyle and educate the population about health and hygiene	AI GPC -2.1. Uses preventive medicine methods aimed at improving public health.  AI GPC -2.2. Promotes a healthy lifestyle aimed at improving hygiene and disease prevention among patients (the population); organizes events for sanitary and hygiene education and the development of healthy lifestyle skills.  AI GPC-2.3. Develops a plan to promote healthy lifestyles for various groups (medical staff and patients, various professional and social groups), taking into account the sanitary and epidemiological situation.  AI GPC-2.4. Ranks public health risk factors and selects and justifies optimal measures to minimize and eliminate health risks.  AI GPC-2.5. Uses physical education methods and tools to promote a healthy lifestyle and ensure fulfilling social and professional functioning.  AI GPC-2.6. Assesses population health

8	CPC 4 Capable of using	The principles of	To use medical	The shility to use	characteristics and environmental factors that impact the body, and understands the biophysical mechanisms of such impacts.  AI GPC-2.7. Assesses the need for drug and non-drug prophylaxis, natural healing factors, and other methods aimed at preventing the occurrence of infectious and non-infectious diseases and eliminating the factors that contribute to their development.  AI GPC-4.1. Utilizes modern medical
o	GPC-4. Capable of using medical devices as prescribed by the medical care procedures, as well as conducting patient examinations to establish a diagnosis.	The principles of using medical devices, as stipulated by the procedure for providing medical care, as well as conducting a patient examination for the purpose of establishing a diagnosis	devices provided for by the procedure for providing medical care, as well as to conduct examinations of the patient in order to establish a diagnosis	The ability to use medical devices, as provided for by the procedure for providing medical care, as well as conducting an examination of the patient for the purpose of establishing a diagnosis	technologies, specialized equipment and medical devices, disinfectants, and medications, including immunobiological and other substances and their combinations, to solve professional problems using evidence-based medicine.  AI GPC-4.2. Understands the indications and contraindications for instrumental, functional, and laboratory examination methods, potential complications during examinations, emergency care, and their prevention.  AI GPC-4.3. Interprets the results of the most common instrumental, laboratory, and functional diagnostic methods, including thermometry, to identify pathological processes.  AI GPC -4.4. Proficient in methods of general clinical examination of patients of various ages.  AI GPC-4.5. Formulates a preliminary

					diagnosis and a clinical diagnosis
9	GPC-5. Capable of assessing morphofunctional, physiological states and pathological processes in the human body to solve professional problems	Principles of assessing morphofunctional, physiological states and pathological processes in the human body to solve professional problems	morphofunctional, physiological states and pathological processes in the human body to solve professional problems	processes in the human body to solve professional problems	AI GPC-5.1. Understands the functional systems of the human body, their regulation, and self-regulation in interactions with the external environment under normal and pathological conditions.  AI GPC-5.2. Knowledge of etiology, pathogenesis, morphogenesis, pathomorphism of disease development, and basic concepts of nosology.  AI GPC-5.3. Understands the morphofunctional and physiological state indicators of a healthy person and can measure/determine them.  AI GPC-5.4. Uses indicators of morphofunctional, physiological state, and pathological processes to examine the human body to establish a diagnosis, prescribe treatment, and monitor its effectiveness and safety.  AI GPC-5.5. Analyzes and interprets macroscopic and microscopic changes in normal and pathologically altered tissues and organs.  AI GPC-5.6. Interprets biopsy and surgical specimen results to solve professional problems and formulate a diagnosis in accordance with the ICD.
10	GPC-6.	Principles of	Organize patient care,	The ability to	AI GPC-6.1. Organizes patient care and
	Capable of organizing	organizing patient	provide primary	organize patient	provides primary health care and
	patient care, providing	care, providing	health care, ensure	care, provide	emergency care to patients.

	primary health care,	primary health care,	the organization of	primary health care,	AI GPC-6.2. Uses medical equipment for
	ensuring the organization	ensuring the	work and the	ensure the	protection, prevention, provision of
	of work and making	organization of	adoption of	organization of	medical care, and treatment of injuries
	professional decisions in	work and making	professional	work and make	caused by toxic substances of various
	emergency situations at	professional	decisions in	professional	origins, radioactive substances, and
	the pre-hospital stage, in	decisions in	emergency situations	decisions in	biological agents.
	emergency situations,	emergency	at the pre-hospital	emergency	AI GPC-6.3. Makes professional
	epidemics and in areas of	situations at the	stage, in emergency	situations at the	decisions in emergency situations and
	mass destruction	pre-hospital stage,	situations, epidemics	pre-hospital stage,	provides first aid at the pre-hospital stage,
		in emergency	and in areas of mass	in emergency	during emergencies, epidemics, and in
		situations,	destruction	situations,	areas of mass casualties.
		epidemics and in		epidemics and in	AI GPC-6.4. Organizes the work of
		areas of mass		areas of mass	medical personnel and implements anti-
		destruction		destruction	epidemic measures to protect the
					population during emergencies,
					epidemics, and in areas of mass casualties.
11	<b>GPC-7.</b> Capable of	1	Prescribe treatment	Ability to prescribe	AI GPC-7.1. Selects a drug based on its
11	prescribing treatment and	treatment	and monitor its	treatment and	pharmacokinetic and pharmacodynamic
11	prescribing treatment and monitoring its	treatment prescription and	and monitor its effectiveness and	treatment and monitor its	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients
11	prescribing treatment and	treatment prescription and monitoring of its	and monitor its	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its effectiveness and	and monitor its effectiveness and	treatment and monitor its	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its	and monitor its effectiveness and	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.  AI GPC-7.2. Selects the optimal
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its effectiveness and	and monitor its effectiveness and	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.  AI GPC-7.2. Selects the optimal minimum of the most effective products,
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its effectiveness and	and monitor its effectiveness and	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.  AI GPC-7.2. Selects the optimal minimum of the most effective products, using convenient methods of application.
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its effectiveness and	and monitor its effectiveness and	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.  AI GPC-7.2. Selects the optimal minimum of the most effective products, using convenient methods of application.  AI GPC-7.3. Explains the primary and
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its effectiveness and	and monitor its effectiveness and	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.  AI GPC-7.2. Selects the optimal minimum of the most effective products, using convenient methods of application.  AI GPC-7.3. Explains the primary and secondary effects of medications, the
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its effectiveness and	and monitor its effectiveness and	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.  AI GPC-7.2. Selects the optimal minimum of the most effective products, using convenient methods of application.  AI GPC-7.3. Explains the primary and secondary effects of medications, the effects of their combined use, and
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its effectiveness and	and monitor its effectiveness and	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.  AI GPC-7.2. Selects the optimal minimum of the most effective products, using convenient methods of application.  AI GPC-7.3. Explains the primary and secondary effects of medications, the effects of their combined use, and interactions with food, taking into account
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its effectiveness and	and monitor its effectiveness and	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.  AI GPC-7.2. Selects the optimal minimum of the most effective products, using convenient methods of application.  AI GPC-7.3. Explains the primary and secondary effects of medications, the effects of their combined use, and interactions with food, taking into account morphofunctional characteristics,
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its effectiveness and	and monitor its effectiveness and	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.  AI GPC-7.2. Selects the optimal minimum of the most effective products, using convenient methods of application.  AI GPC-7.3. Explains the primary and secondary effects of medications, the effects of their combined use, and interactions with food, taking into account morphofunctional characteristics, physiological conditions, and pathological
11	prescribing treatment and monitoring its	treatment prescription and monitoring of its effectiveness and	and monitor its effectiveness and	treatment and monitor its effectiveness and	pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological entities in outpatient and inpatient settings.  AI GPC-7.2. Selects the optimal minimum of the most effective products, using convenient methods of application.  AI GPC-7.3. Explains the primary and secondary effects of medications, the effects of their combined use, and interactions with food, taking into account morphofunctional characteristics,

					the treatment of diseases and correction of
					pathological conditions, based on the
					pharmacokinetics and pharmacodynamics
					1
					of the drugs.
					AI GPC-7.5. Takes into account
					morphofunctional characteristics,
					physiological states, and pathological
					processes in the human body when
					selecting over-the-counter medications
					and other pharmacy products.
					AI GPC-7.6. Analyzes the results of
					potential drug interactions when various
					medications are used in combination.
					AI GPC-7.7. Evaluates the efficacy and
					safety of drug therapy using a
					combination of clinical, laboratory,
					instrumental, and other diagnostic
					methods.
12	GPC-8.	Principles for the	Implement and	The ability to	AI GPC -8.1. Assesses a person's
	Capable of implementing	implementation and	monitor the	implement and	functional reserves and adaptive abilities,
	and monitoring the	monitoring of the	effectiveness of	monitor the	reduced by adverse environmental factors
	effectiveness of medical	effectiveness of	medical rehabilitation	effectiveness of	and activities or as a result of illness.
	rehabilitation of a patient,	medical	of the patient,	medical	<b>AI GPC-8.2.</b> Identifies risk groups for the
	including the	rehabilitation of a	including the	rehabilitation of a	purpose of improving health and
	implementation of	patient, including	implementation of	patient, including	determining rehabilitation potential for
	individual rehabilitation	the implementation	individual	the implementation	subsequent restorative treatment and
	programs, and assessing	of individual	rehabilitation and	of individual	rehabilitation of patients.
	the patient's ability to	rehabilitation and	habilitation programs	rehabilitation and	AI GPC-8.3. Develops and organizes a
	perform work activities	habilitation	for a disabled child,	habilitation	plan of medical rehabilitation for patients,
		programs for a	and assess the	programs for a	including non-drug treatment methods
		disabled child, and	patient's ability to	disabled child, and	(natural healing factors, physical and
		the assessment of	perform work	to assess the	reflexology, exercise therapy).

		to perform work activities		perform work activities	clinical, laboratory, and instrumental diagnostic methods to monitor the effectiveness of medical rehabilitation programs and assess the patient's ability to perform work activities.
13	GPC-10. Able to solve standard professional tasks using information and bibliographic resources, medical and biological terminology, and information and communication technologies, taking into account the basic requirements of information security.	Principles for solving standard professional tasks using information and bibliographic resources, medical and biological terminology, and information and communication technologies, taking into account the basic requirements of information security	Solve standard professional tasks using information and bibliographic resources, medical and biological terminology, and information and communication technologies, taking into account the basic requirements of information security.	The ability to solve standard professional tasks using information, bibliographic resources, medical and biological terminology, information and communication technologies, taking into account the basic requirements of information security	AI GPC-10.1. Maintains confidentiality when working with information databases and personal data of citizens.  AI GPC-10.2. Efficiently searches for information needed to solve professional problems using legal reference systems and professional pharmaceutical databases.  AI GPC-10.3. Uses specialized software for the mathematical processing of observational and experimental data when solving problems in professional activities.  AI GPC-10.4. Utilizes automated information systems in the internal processes of a medical organization, as well as to organize interactions between
					medical personnel and patients within medical organizations.
			Professional compet	l .	
14	PC-1 Able to collect and analyze complaints, life history and illnesses in order to establish a diagnosis	Principles of collecting and analyzing complaints, anamnesis of life and illness of a	Collect and analyze complaints, life history and illness of the child in order to establish a diagnosis	The ability to collect and analyze complaints, life history and illness of a child in order to establish a	AI 1.1. Establishes contact with the child, parents (legal representatives) and persons caring for the child.  AI 1.2. Collects and evaluates information about the age of parents and environmental risk factors that have a

		child for the		diagnosis	negative impact on the child's
		purpose of		diagnosis	development and health.
		establishing a			AI1.3. Obtains information about
		_			
		diagnosis			hereditary and chronic diseases in parents,
					immediate relatives and caregivers.
					AI1.4. Creates a family tree within three
					generations of relatives, starting with the
					sick child.
					AI1.5. Collects and evaluates information
					about the child's medical history, taking
					into account his/her age, past illnesses,
					surgeries, preventive vaccinations, and the
					results of the Mantoux test and Diaskin
					test.
					AI1.6. Receives information about
					complaints, timing of onset of the disease,
					timing of first and repeat visits, and
					treatment provided.
15	PC-2	Principles of	Conduct an objective	The ability to	AI 2. 1. Conducts a physical examination
	Able to conduct objective	conducting an	examination, analyze	conduct an	and assesses the condition of organs and
	research and analyze the	objective study,	the results of	objective study,	systems.
	results of additional	analysis of the	additional	analyze the results	<b>AI2.2.</b> Assesses the indicators of physical
	examinations in order to	results of additional	examination of the	of additional	and psychomotor development of children
	establish a diagnosis	examination of a	child in order to	examination of the	of different age groups.
		child in order to	establish a diagnosis	child in order to	AI2.3. Determines the need and scope of
		establish a		establish a	additional examination methods:
		diagnosis		diagnosis	laboratory, instrumental, in accordance
					with current clinical guidelines (treatment
					protocols), procedures for providing
					medical care and taking into account the
					standards of medical care
					AI2.4. Informs the children's parents

					(their legal representatives) about the
					child's preparation for laboratory and
					instrumental examination
					<b>AI2.5.</b> Interprets laboratory and
					instrumental examination methods, taking
					into account age and gender groups.
					AI2.6. Determines the need to refer
					children for consultation with specialist
					doctors in accordance with current clinical
					guidelines (treatment protocols),
					procedures for providing medical care,
					and taking into account standards of
					medical care.
					AI2.7. Conducts differential diagnosis
					with other diseases
					AI2.8. Formulates a diagnosis in
					accordance with the International
					Statistical Classification of Diseases and
					Related Health Problems
					AI2.9. Properly uses medical equipment
					that is included in the standard equipment
					of the local TB doctor's office in
					accordance with the procedure for
1.0	DC 4	D: :1 C	D	TTI 1:1:4 4	providing medical care.
16	PC-3	Principles for	Determine indications for	The ability to determine	AI3.1. Assesses the clinical picture of
	Able to determine	determining indications for		indications for	diseases and conditions requiring
	indications for		hospitalization, assess the severity of the		emergency care
	hospitalization, assess the severity of the condition,	hospitalization, assessing the	condition, and	hospitalization, assess the severity	AI3.2. Assesses the clinical picture of diseases and conditions requiring
	and identify indications	severity of the	identify indications	of the condition,	diseases and conditions requiring emergency care
	for emergency care.	condition, and	for emergency care.	and identify	AI3.3. Refer children for hospitalization
	Tor emergency care.	identifying	Tor emergency care.	indications for	in accordance with current clinical
		identifying		marcanons for	in accordance with current chilical

		indications for		emergency care.	guidelines (treatment protocols),
		emergency care.		emergency cure.	procedures for providing medical care,
		emergency cure.			and taking into account standards of
					medical care
17	PC-4	Principles of	Prescribe treatment to	The ability to	AI 4.1Draws up a treatment plan for
1'	Able to prescribe	prescribing	children and monitor	prescribe treatment	diseases and conditions, diagnosis and
	treatment and monitor its	treatment to	its effectiveness and	to children and	clinical picture of the disease and in
		children and		monitor its	accordance with current clinical
	effectiveness and safety		safety		
		monitoring its		effectiveness and	guidelines (treatment protocols),
		effectiveness and		safety.	procedures for providing medical care and
		safety			taking into account standards of medical
					care
					AI4. 2. Prescribes diet therapy, drug and
					non-drug therapy taking into account
					weight, diagnosis and clinical picture of
					the disease, as well as taking into account
					the recommendations of medical
					specialists
					<b>AI4.3.</b> Explains the need for and rules for
					taking medications, non-drug therapy, and
					the use of dietary therapy.
					<b>AI4.4.</b> Analyzes the effects of
					medications based on their
					pharmacological effects on the body,
					depending on the child's age, and prevents
					the development of complications and
					adverse reactions when prescribing
					treatment.
					<b>AI4.5.</b> Analyzes the effectiveness of non-
					drug therapy; prevents the development of
					complications and adverse reactions when
					prescribing non-drug treatment and

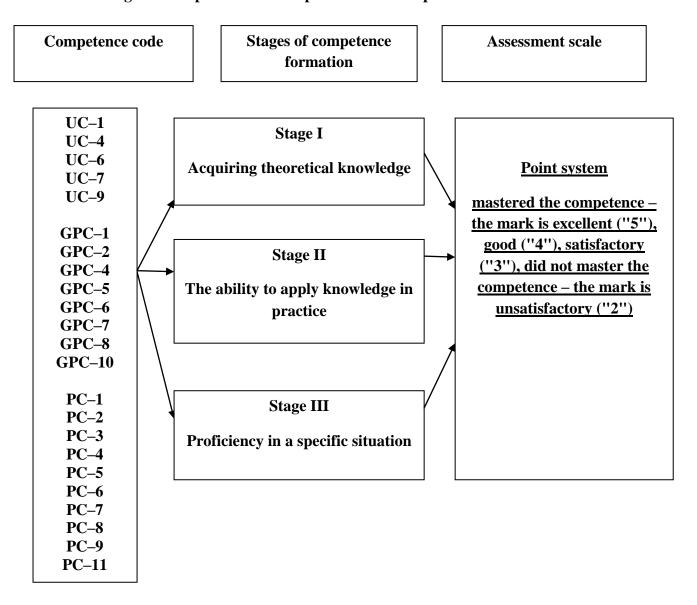
					dietary therapy.
18	PC-5 Capable of participating in the provision of urgent , emergency medical care when organizing primary health care	Principles of providing urgent, emergency and palliative medical care to children when organizing primary health care	Provide urgent, emergency and palliative medical careassistance to children in organizing primary health care	The ability to provide urgent, emergency and palliative medical care to children when organizing primary health care	AI 5.1. Provides medical care in the event of emergency conditions in accordance with current clinical guidelines (treatment protocols), procedures for providing medical care, and taking into account medical care standards.  AI5.2. Provides emergency medical care (including cardiopulmonary resuscitation) in accordance with current clinical guidelines (treatment protocols), procedures for providing medical care, and taking into account standards of medical care.  AI5.3. Provides palliative care to children in accordance with current clinical guidelines (treatment protocols), procedures for providing medical care, and taking into account standards of medical care.
19	PC-6 Able to refer patients to organizations for medical and social assessment.	Principles for referring children to organizations for medical and social examination and for the provision of palliative care	Refer children to organizations to undergo medical and social examination.	The ability to refer children to organizations to undergo medical and social examination.	AI6. 1. Highlightshealth problems that lead to limitations in their life activities AI6. 2. Refer patients with disabilities to early intervention services.  AI6.3. Refers patients with disabilities that limit their life activities for medical and social assessment.  AI6.4. Refers patients with disabilities that limit their life activities to medical organizations.
20	PC-7 Implements and monitors	Principles of implementation and	Implement and monitor the	Ability to implement and	<b>AI7. 1.</b> Determines medical indications and contraindications for rehabilitation

the effec	ctiveness of	monitoring of the	effectiveness of	monitor the	measures in accordance with current
individual	rehabilitation	effectiveness of	individual	effectiveness of	clinical guidelines (treatment protocols),
programs		individual	rehabilitation	individual	procedures for providing medical care,
		rehabilitation	programs	rehabilitation	and taking into account standards and
		programs		programs	medical care
					<b>AI7. 2.</b> Determines medical specialists to
					carry out rehabilitation measures in
					accordance with current clinical
					guidelines (treatment protocols),
					procedures for providing medical care and
					taking into account the standards of
					medical care
					<b>AI7.3.</b> Monitors the effectiveness and
					safety of rehabilitation measures in
					accordance with current clinical
					guidelines (treatment protocols),
					procedures for providing medical care,
					and taking into account standards and
					medical care
					<b>AI7.4.</b> Prescribes and evaluates the
					effectiveness and safety of spa treatment
					for long-term and frequently ill children
					and children with chronic diseases, taking
					into account the child's age, diagnosis, in
					accordance with current clinical
					guidelines (treatment protocols),
					procedures for providing medical care,
					and standards of medical care.
					AI7.5. Assesses the implementation of the
					individual rehabilitation program,
					developed by the medical and social
					expert physician.

21	PC -8	Principles of	Conduct preventive	The ability to	AI8.1.Organizes and ensures the
	A method for conducting	conducting	medical examinations	conduct preventive	implementation of preventive medical
	preventive medical	preventive medical	, clinical	medical	examinations in accordance with current
	examinations, clinical	examinations,	examinations and	examinations,	regulatory legal acts
	examinations and	clinical	carry out clinical	clinical	AI8.2. Organizes and monitors the
	implementing clinical	examinations and	follow - up	examinations and	implementation of immunoprophylaxis
	observation	implementation of	observations	carry out clinical	<b>AI8.3.</b> Determines the dispensary
		clinical observation			registration group and risk factors for the
					development of the disease, and therefore
					prescribes individual treatment and health
					measures in accordance with current
					clinical guidelines (treatment protocols),
					procedures for providing medical care,
					and taking into account medical care
					standards.
					<b>AI8.4.</b> Establishes a health group based
					on the diagnosis and previous illness
					<b>AI8.5.</b> Conducts outpatient observation in
					accordance with current clinical
					guidelines (treatment protocols),
					procedures for providing medical care,
					and taking into account medical care
					standards.
22	PC 9	Principles for the	To implement a set of	The ability to	<b>AI9.1.</b> Promotes the benefits of
	It is capable of	implementation of a	measures aimed at	implement a set of	breastfeeding in children under one year
	implementing a set of	set of measures	preserving and	measures aimed at	of age, including exclusive breastfeeding
	measures aimed at	aimed at preserving	strengthening the	preserving and	for the first 6 months, and the rules for
	preserving and	and strengthening	health of children,	strengthening the	introducing complementary foods in
	strengthening health,	the health of	including conducting	health of children,	accordance with current clinical
	including for conducting	children, including	health education	including	guidelines.
	health education work	conducting health	work among the	conducting health	AI9.2. Explains to children, their parents
	among the population	education work	population	education work	(legal representatives), and persons caring

		among the		among the	for the child the rules for a rational,
		population		population	balanced diet for children of different age
23	PC-11 Ready to maintain medical records, including in electronic form	Principles of maintaining medical records, including in electronic form	Maintain medical records, including in electronic form	Ability to maintain medical records, including in electronic form	groups.  AI9.3. Explains the rules for developing a healthy lifestyle, taking into account the child's age and health status. Uses various forms and methods of health education.  AI9.4. Organizes the implementation of sanitary and anti-epidemic (preventive) measures in the event of an outbreak of infection.  AI11.1.Obtains voluntary informed consent from parents (legal representatives) and children over 15 years of age for examination, treatment and immunoprophylaxis, as well as for the processing of personal data  AI 11.2. Completes medical documentation, including in electronic form, in accordance with established legal requirements.  AI11.3. Prepares documents for referring children for hospitalization, spa treatment, medical and social assessment, attendance at educational institutions, and temporary
					medical and social assessment, attendar

#### 1.9 Stages of competencies development and description of assessment scales



#### 2. Structure and content of practice

#### 2.1. Scope of practice

Scope of practice	
Total labor intensity in hours, total	432 hours
Labor intensity in hours of the Module "Detection of tuberculosis in the general health care network"	36 hours
Total workload in credit units, total	12 z.e.
Type of intermediate assessment	Credit with grade

#### 2.2. Type of practice – industrial.

Industrial internship is a mandatory part of the curriculum, directly focused on students' professional and practical training. During the program, students are encouraged to master a set of required practical skills.

#### 2.3. Criteria for assessing students' knowledge

The assessment of learning outcomes is carried out in accordance with the "Regulations on the system for assessing the learning outcomes of students of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy of the Ministry of Health of the Russian Federation".

The basis for determining the level of knowledge, skills, and abilities are the assessment criteria - completeness and correctness:

- correct, precise answer;
- correct, but incomplete or inaccurate answer;
- incorrect answer;
- no answer.

When assigning marks, the classification of errors and their quality are taken into account:

- -gross errors;
- similar errors;
- minor errors:
- shortcomings.

#### Criteria for assessing the theoretical part

- "5" for the depth and completeness of mastery of the content of the educational material, in which the student can easily navigate, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present their answer competently and logically.
- "4" the student has fully mastered the educational material, is oriented in it, and expresses his answer competently, but the content and form contain some inaccuracies.
- "3" the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, and does not know how to express and justify his judgments.
- "2" the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and the secondary, makes mistakes in defining concepts, distorts their meaning, and presents the material in a disorderly and uncertain manner.

#### Test control evaluation criteria

- "5" when testing, up to 10% of incorrect answers are allowed.
- "4" allows up to 20% of incorrect answers during testing.
- "3" allows up to 30% of incorrect answers during testing.
- "2" during testing, more than 30% of incorrect answers are allowed.

#### Criteria for assessing the practical part

"5" – the student has fully mastered the practical skills and abilities provided for in the work program of industrial practice.

- "4" the student has mastered the practical skills and abilities provided for in the work program of industrial practice, but allows for some inaccuracies.
- "3" the student has only some practical skills and abilities.
- "2" the student has only some practical skills and abilities and performs them with gross errors.

#### Interim assessment (test lesson) on a five-point scale

The midterm assessment is conducted by a practice commission consisting of a course supervisor from the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy and a practice supervisor from a medical organization.

- "5" (excellent) for the depth and completeness of the student's understanding of the course material, which the student navigates easily, for their ability to connect theoretical and practical questions, express and justify their judgments, and present their answers clearly and logically; Allows up to 10% incorrect answers during testing. The practical skills and abilities required by the internship program have been fully mastered.
- "4" good the student has fully mastered the course material, is familiar with it, and presents answers clearly, but the content and format contain some inaccuracies; during testing, the student makes up to 20% incorrect answers. The student has fully mastered the practical skills and abilities required for the course, but makes some inaccuracies.
- "3" (satisfactory) the student has mastered the knowledge and understanding of the main concepts of the course material, but presents it incompletely and inconsistently, and is unable to express and justify their judgments; during testing, the student makes up to 30% incorrect answers. The student possesses only some practical skills and abilities.
- "2" (unsatisfactory) the student has a fragmented and unsystematic knowledge of the course material, is unable to distinguish between essential and non-essential concepts, makes errors in defining concepts, distorts their meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% incorrect answers during testing. The student performs practical skills and abilities with significant errors.

#### 3. Educational, methodological, logistical and informational support for practice

#### 3.1. Primary Literature

#### 3.2 Further reading

MAIN LITERATURE:	
1. Giller, D. B. Phthisiology: textbook / D. B. Giller, V. Yu.	http://www.studmedlib.ru/book
Mishin et al Moscow: GEOTAR-Media, 2020 576 p ISBN	/ISBN9785970454909.html
978-5-9704-5490-9. Access mode: by subscription.	
2.Mishin, V. Yu. Phthisiatry: textbook / V. Yu. Mishin, S. P.	http://www.studmedlib.ru/book
Zavrazhnov, A. V. Mitronin, A. V. Mishina 3rd ed., overworker	/ISBN9785970454008.html
. and additional Moscow: GEOTAR-Media, 2020 528 p	
ISBN 978-5-9704-5400-8. Access mode: by subscription.	
3. Koshechkin, V. A. Phthisiology: textbook / V. A. Koshechkin	http://www.studmedlib.ru/book
Moscow: GEOTAR-Media, 2018 304 p.: ill 304 p ISBN	/ISBN9785970446270.html
978-5-9704-4627-0. Access mode: by subscription.	
ADDITIONAL REFERENCES:	

1. Borodulina, E. A. Radiation diagnostics of pulmonary	http://www.studmedlib.ru/book
tuberculosis: a tutorial / Borodulina E. A., Borodulin B. E.,	/ISBN9785970459911.html
Kuznetsova A. N Moscow: GEOTAR-Media, 2021 120 p	
ISBN 978-5-9704-5991-1. Access mode: by subscription.	
2. Perelman, M. I. Phthisiology: textbook / M. I. Perelman, I. V.	http://www.studmedlib.ru/book
Bogadejnikova 4th ed.revised and enlarged Moscow:	/ISBN9785970433188.html
GEOTAR-Media, 2015 448 p ISBN 978-5-9704-3318-8	
Access mode: by subscription.	

### 3.3. Educational and methodological support for practice, prepared by the department's staff

- 1. Mishuk V.P. "Tuberculosis pleurisy". 2012 teaching aid
- 2. Mishuk V.P. "Alternative etiotropic therapy of tuberculosis". 2012 teaching aid.
- 3. Mishuk V.P., Tyak E.P., Sayapin S.R. "Drug-resistant tuberculosis". 2010.
- 4. Mishin V. Yu. "Caseous pneumonia: diagnostics, clinical features and treatment" // Problems of tuberculosis . 2012. No. 3. P. 22.

#### 3.4. Material and technical base for conducting internship

Classroom 2, area -20.3 sq. m, for clinical practical classes, group and individual consultations, ongoing, midterm control and midterm certification. 675000, Amur Region, Blagoveshchensk, Liteynaya St. 5, AOPTD, 1st floor

Medical products: tonometers, phonendoscopes, pulse oximeters, height meters, medical scales, bactericidal irradiators, kits for emergency treatment and preventive measures, negatoscope, consumables.

### 3.5. Professional databases, information and reference systems, electronic educational resources.

Ite	Resource name	Resource Description	Access	Resource address
m				
Elec	tronic library syster	ms		
1.	"Student Consultant." Medical University Electronic Library	For students and faculty of medical and pharmaceutical universities. Provides access to electronic versions of textbooks, teaching aids, and periodicals.	library, individual access	http://www. studmedlib.ru/
2.	PubMed	MedLine, the largest medical bibliographic database. It documents medical and biological articles from specialized literature and provides links to full-text articles.	library, free access	http://www. ncbi.nlm.nih . gov/ pubmed /

Dat	Oxford Medicine Online	A collection of Oxford Press medical publications, bringing together over 350 titles into a single, cross-searchable resource. Publications include The Oxford Handbook of Clinical Medicine and The Oxford Textbook of Medicine, the electronic versions of which are constantly updated.	library, free access	http://www.oxfordmedicine.com
1	Ministry of Science and Higher Education of the Russian Federation	The official resource of the Ministry of Science and Higher Education of the Russian Federation. The site contains news, newsletters, reports, publications, and much more.	library, free access	http://www. minobrnauki . gov . ru
		Information systems		
1.	Russian Medical Association	A professional online resource. Purpose: to promote the effective professional activities of medical personnel. Contains the charter, personnel, structure, membership	library, free access	http://www.rmass.ru
2.	Web medicine	The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students,	library, free access	http://webmed.irkutsk.ru//
1	Databasa	Bibliographic databases		http://www.gogml.go
2.	Database "Russian Medicine"	Created at the Central Scientific and Methodological Library, it covers the entire collection since 1988. The database contains bibliographic descriptions of articles from Russian journals and collections, dissertations and their abstracts, as well as Russian and foreign books, institute proceedings, conference materials, etc. Thematically, the	library, free access	http://www.scsml.rs si.ru/
2.		A Russian information portal in the fields of science, technology, medicine, and education, containing abstracts and full texts of more than 13 million scientific articles and publications.  eLIBRARY.RU platform offers electronic versions of over 2,000 Russian scientific and technical	access	aultx.asp

3.	Portal Electronic	Currently, the Electronic Library of	library, free	httn://diss.rsl.ru/?m
	Library of	Dissertations of the Russian State	access	enu=disscatalog/
	Dissertations	Library contains more than 919,000		
		full texts of dissertations and		
		abstracts.		

### 3.6. Licensed and freely distributed software used in the educational process

No.	I. Commercial software products				
p/p					
1.	MS Windows 7 Pro operating system	License number 48381779			
2.	Operating system: MS Windows 10 Pro, MS	AGREEMENT No. 142 A dated			
	Office	December 25, 2019			
3.	MS Office	License numbers: 43234783, 67810502,			
		67580703, 64399692, 62795141,			
		61350919			
4.	Kaspersky Endpoint Security for Business	Agreement No. 977/20 dated			
	Advanced	12/24/2020			
5.	1 C: PROF University	LICENSE AGREEMENT No. 2191			
		dated October 15, 2020			
6.	1C: PROF Library	LICENSE AGREEMENT No. 2281			
	dated November 11, 2020				
	Freely distributable software				
1.	Google Chrome	Freely distributed			
		Distribution Terms:			
		https://play.google.com/about/play-			
2	W 1 D	terms/index.html			
2.	Yandex Browser	Freely distributed			
		License Agreement for the Use of			
		Yandex Browser Software			
		https://yandex.ru/legal/browser_agreem			
3.	Dr. Web CureIt!	ent/			
3.	Dr. web Curen!	Freely distributed License Agreement:			
		8			
		https://st.drweb.com/static/new-			
4.	Open Office	www/files/license_CureIt_ru.pdf			
4.	Open Office	Freely distributed License:			
5.	Libre Office	http://www.gnu.org/copyleft/lesser.html Freely distributed			
٥.	Libre Office				
		License: https://ru.libreoffice.org/about-			
		us/license/			

#### 3.7 Resources of the information and telecommunications network "Internet"

- 1. <u>ttps://www.rosminzdrav.ru/ministrv/61/22/stranitsa-979/stranitsa-983/l-standartv-pervichnov-inediko-sanitarnov-pomoschi</u>
- 2. <a href="https://www.rosminzdrav.ru/ministrv/61/22/stranitsa-979/stranitsa-983/2-standarty-spetsializirovannov-meditsinskov-pomoschi">https://www.rosminzdrav.ru/ministrv/61/22/stranitsa-979/stranitsa-983/2-standarty-spetsializirovannov-meditsinskov-pomoschi</a>
- 3. <a href="https://www.rosminzdrav.rU/ministrv/6">https://www.rosminzdrav.rU/ministrv/6</a> <a href="li4/stranitsa-857/porvadki-okazaniva-meditsinskoy-pomoschi-naseleniyu-rossivskoy-federatsii">l/4/stranitsa-857/porvadki-okazaniva-meditsinskoy-pomoschi-naseleniyu-rossivskoy-federatsii</a>
- 4. <a href="http://www.femb.ru">http://www.femb.ru</a>(Clinical guidelines)
  - 4. The module's assessment tools include:
  - 4.1. Examples of test tasks for intermediate knowledge assessment

Testing is conducted in the Moodle system (e-mail address <a href="https://educ-amursma.ru/course/view.php?id=600">https://educ-amursma.ru/course/view.php?id=600</a> In total – 100 test tasks.

#### Choose 1 correct answer:

- 1. THE MAIN METHOD OF DETECTING TUBERCULOSIS AMONG THE ADULT POPULATION IS:
  - A) bacteriological examination of sputum
  - B) tuberculin diagnostics
  - B) fluorographic examination of the respiratory organs
  - D) test with recombinant tuberculosis allergen
- 2. STUDY OF SPUTUM FOR MYCOBACTERIUM TUBERCULOSIS IS THE MAIN METHOD OF DETECTING TUBERCULOSIS IN PATIENTS WITH
  - A) peptic ulcer of the gastrointestinal tract
  - B) chronic lung diseases
  - B) chronic alcoholism
  - C) diabetes mellitus
- 3. THE FIRST MANTOUX TEST WITH 2 TE CHILDREN VACCINATED WITH BCG IN THE MATERNITY HOSPITAL IS CONDUCTED IN
  - A) 12 months
  - B) 6 months
  - B) 2 months
  - D) 3 months
- 4. AFTER SETTINGINTRADERMAL TESTWITH THE DRUG DIASKINTEST THE RESULT IS EVALUATED THROUGH
  - A) 48 hours
  - B) 72 hours
  - B) 24 hours
  - D) 5 days
- 5. SENSITIVITY OF THE BACTERIOSCOPIC METHOD IN USING A LIGHT MICROSCOPE TO IDENTIFY acid-fast mycobacteriaAMOUNTS MORE THAN \_\_\_\_\_ MICROBIAL BODIES IN 1 ML:

- A) 1000
- B) 10.000
- B) 1,000,000
- D) 100

#### 6. X-RAY EXAMINATION FOR RESPIRATORY DISEASES SHOULD BEGIN WITH

- A) fluorography in direct and lateral projections
- B) fluoroscopy in various projections
- B) tomography of the lungs in direct and lateral projections
- D) plain radiography in direct and lateral projections

# 7. THE MOST INFORMATIVE METHOD OF MANDATORY DIAGNOSTIC MINIMUM TO ALLOW ESTABLISHING THE ETIOLOGICAL DIAGNOSIS OF PULMONARY TUBERCULOSIS

- A) objective examination of the patient
- B) clinical blood and urine tests
- Ziehl -Neelsen sputum microscopy
- C) chest x-ray

### 4.2. List of practical skills that a student should possess after completing the internship

- 1) formation of a differential diagnostic seriesif availableradiological syndromes characteristic for tuberculosis and other respiratory diseases
- 2) formulation of an algorithm for collecting anamnesis from a patient with suspected tuberculosis.
- 3) drawing up a plan for examining a patient with suspected tuberculosis, interpreting the resultslaboratory and instrumental research methods.

#### 4.3. List of questions for the test

- 1. What laws and regulations govern the conduct of preventive examinations of the population for tuberculosis?
- 2. The main tasks of general health care institutions when examining the population for tuberculosis.
- 3. Name the methods for active identification of patients with respiratory tuberculosis.
- 4. What does the increase in the proportion of patients with fibro-cavernous tuberculosis among newly diagnosed tuberculosis patients?
- 5. Population groups at increased risk of developing tuberculosis.
- 6. Frequency of testing risk groups for tuberculosis.
- 7. Microbiological examination of patients with suspected tuberculosis in the general health care network.
- 8. Chest radiography. Main advantages and limitations.
- 9. Fluorography. Methodology. Objectives and tasks. Advantages and disadvantages.
- 10. What is the algorithm, essence and indications for the use of radiation methods? diagnostics for pulmonary tuberculosis?
- 11. List the main methods for detecting tuberculosis in adults and children.
- 12. Name the main symptoms and syndromes of pulmonary tuberculosis, determine the value of the patient's subjective sensations.

- 13. Describe the algorithm for identifying and diagnosing pulmonary tuberculosis in the practice of a general practitioner.
- 14. Endoscopic methods for diagnosing tuberculosis. Indications, biopsy material, and methods of examination.
- 15. Diagnostic capabilities of sputum smear microscopy for AFB, rules for collecting high-quality sputum samples from patients with suspected tuberculosis.
- 16. Classical cultural (bacteriological) examination of sputum and alternative research methods (automated and semi-automated systems for accelerated cultural diagnostics of tuberculosis).
- 17. Molecular genetic research methods as additional methods for accelerated diagnosis of tuberculosis.

#### MODULE 7 "SOCIALLY SIGNIFICANT ENDOCRINE DISEASES"

#### 1.2. Purpose and objectives of the practice

The purpose of the internship is to improve and systematize theoretical knowledge, develop practical skills in organizing and providing outpatient and inpatient medical care, and prevent the occurrence and spread of socially significant endocrine diseases.

#### **Practice objectives:**

- 1. Formation of a set of work actions and skills within the framework of mastering work functions: examination of patients with the aim of
- learn to carry out early diagnosis, treatment, prevention, EVI, and medical examination
  of the most common endocrine diseases in an outpatient setting under the supervision of
  an endocrinologist and a local physician, taking into account the clinical experience
  acquired in the departments, establishing a diagnosis, prescribing treatment and
  monitoring its effectiveness and safety
- 3. conduct differential diagnostics of the main nosological forms of endocrine diseases
- 4. correctly interpret the data of additional examination methods
- 5. to draw up individual plans of treatment and rehabilitation measures for patients with various endocrine diseases depending on the etiological factor, the characteristics of the pathogenesis, the degree of activity of the pathological process, the functional state of organs and systems
- 6. to learn the basic principles of providing emergency care in urgent conditions within the nosological forms being studied
- 7. implementation of preventive measures, including health education work, among patients and their relatives
- 8. organization of activities of medical personnel
- 9. maintaining medical records when providing outpatient care to patients with socially significant endocrine diseases
- 10. reinforcement of communication skills with patients, taking into account ethics and deontology depending on the identified pathology

## 1.3. The place of practice in the structure of the main professionaleducational programhigher education

In accordance with the Federal State Educational Standard of Higher Education (2020),

the "Socially Significant Endocrine Diseases" module of the "General Medicine Practice" industrial practice course is part of the core component, Block 2. The total workload is 36 hours and is completed in the 11th semester of the 6th-year student. Assessment is by credit and grade in the 11th semester.

#### 1.4. Forms of practice control.

Intermediate control is used as a form of monitoring the completion of practical training, including testing, control of theoretical knowledge, and control of the acquisition of practical skills.

#### 1.5. Internship reporting forms.

Industrial practice diary, calendar schedule for completing the internship.

#### 1.6. Requirements for students:

### To master this module, you need knowledge, skills, and abilities developed by previous disciplines:

#### Latin

**Knowledge:** basic medical and pharmaceutical terminology in Latin.

**Skills:** be able to apply knowledge for communication and obtaining information from medical literature, medical documentation

Skills: applies medical and pharmaceutical terminology in Latin in professional activities

#### Professional foreign language

**Knowledge:** basic medical and pharmaceutical terminology in a foreign language

**Skills:** be able to apply knowledge for communication and obtaining information from foreign sources

**Skills:** applies medical and pharmaceutical terminology in a foreign language in professional activities

**Skills: applies**methods andmethods of philosophical analysis of problems; forms and methods of scientific knowledge, their evolution; the main patterns and trends of the development of the world historical process; the laws of dialectical materialism in medicine and therapy in their professional activities

#### **Bioethics**

**Knowledge:** moral and ethical standards, rules and principles of professional medical conduct, rights of the patient and the doctor, basic ethical documents regulating the activities of the doctor

**Skills**: build and maintain working relationships with patients and other team members.

**Skills:** applies moral and ethical standards, rules and principles of professional medical conduct, the rights of the patient and the doctor, the main ethical documents regulating the activities of the doctor in his professional activities

**Skills:** be able to use educational, scientific, popular science literature, the Internet for professional activities, and work with equipment taking into account safety regulations.

**Skills:** applies mathematical methods to solve intellectual problems and their application in medicine; theoretical foundations of computer science, collection, storage, search, processing, transformation, and distribution of information in medical and biological systems, the use of information computer systems in medicine and healthcare; principles of operation and design of equipment used in medicine, the basics of physical and mathematical laws that are reflected in

medicine in their professional activities

#### **Biochemistry**

**Knowledge**: blood composition, biochemical blood constants, hormones, buffer systems, hemoglobin oxygenation factors, erythrocyte metabolism

**Skills:** analyze the contribution of biochemical processes to the functioning of organs and the cardiovascular, respiratory, digestive, urinary, and hematopoietic systems; interpret the results of the most common laboratory diagnostic methods to identify disorders in diseases of internal organs and occupational diseases.

**Skills:** applies knowledge of blood composition, blood biochemical constants, hormones, buffer systems, hemoglobin oxygenation factors, and red blood cell metabolism in their professional activities

#### **Anatomy**

**Knowledge:** anatomical and physiological features of the respiratory, cardiovascular, digestive, and hematopoietic systems

**Skills**: analyze age-gender characteristics of the structure of organs and systems.

**Skills:** applies knowledge of the anatomical and physiological characteristics of the respiratory, cardiovascular, digestive, and hematopoietic systems in their professional activities

#### Normal physiology

**Knowledge** : physiology of the cardiovascular, digestive, urinary, respiratory and hematopoietic systems in normal conditions

**Skills:** analyze the importance of regulation of biological processes in the human body on the functioning of the cardiovascular, digestive, urinary, respiratory, and hematopoietic systems.

**Skills:** applies knowledge of the physiology of the cardiovascular, digestive, urinary, respiratory and hematopoietic systems in their professional activities

#### Pathophysiology, clinical pathophysiology

**Knowledge:** morphological changes in body tissues in pathologies of the endocrine, cardiovascular, respiratory, digestive, urinary and blood systems

**Skills:** determine the contribution of pathophysiological processes to the development of diseases of internal organs.

**Skills:** applies knowledge of morphological changes in body tissues in pathologies of the endocrine, cardiovascular, respiratory, digestive , urinary and blood systems in their professional activities

#### **Immunology**

**Knowledge**: types of immunity, regulation of the immune response, causes of immunopathological conditions, clinical manifestations of immunopathology, basic methods for assessing immune status and principles of its assessment, indications for the use of immunotropic therapy

**Skills:** identify syndromes and symptoms of diseases associated with immune system disorders, prescribe a clinical and immunological examination, formulate an immunological diagnosis, prescribe immunocorrective therapy and preventive measures to prevent diseases of the immune system.

**Skills:** applies knowledge of the types of immunity, regulation of the immune response, causes of immunopathological conditions, clinical manifestations of immunopathology, basic methods for assessing immune status and principles of its assessment, indications for the use of immunotropic therapy in their professional activities

#### Pharmacology

Knowledge: pharmacokinetics, pharmacodynamics, side effects of various drugs on the body

Skills: write prescriptions for prescribed medications, know the indications and contraindications for their use.

**Skills:** applies knowledge of pharmacokinetics, pharmacodynamics, and side effects of various drugs on the body in his/her professional activities

#### Propaedeutics of internal diseases

**Knowledge:** collection of complaints, anamnesis, objective methods of examination of patients (palpation, percussion, auscultation

**Skills**: conduct anamnestic and physical examination, identify the main syndromes and symptoms of diseases of internal organs.

**Skills:** applies knowledge of collecting complaints, anamnesis, objective methods of examining patients (palpation, percussion, auscultation) in his professional activities

#### Pathological anatomy, clinical pathological anatomy

**Knowledge:** etiology, pathogenesis, morphogenesis, pathomorphosis of disease, principles of disease classification; structural and functional bases of diseases and pathological processes; causes, mechanisms of development and outcomes of typical pathological processes.

**Skills:** visually assess and record changes in the organs and tissues of a corpse, substantiate the nature of the pathological process and its clinical manifestations; provide an opinion on the cause of death and formulate a pathological diagnosis;

**Skills:** applies knowledge of the etiology, pathogenesis, morphogenesis, pathomorphosis of disease, principles of disease classification; structural and functional bases of diseases and pathological processes; causes, mechanisms of development and outcomes of typical pathological processes in their professional activities

#### **Emergency conditions in therapy**

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of emergency conditions in endocrinology

**Skills:** diagnose an urgent condition under the main therapeutic conditions, formulate and justify a clinical diagnosis, conduct a differential diagnosis and provide emergency care.

**Skills:** applies knowledge of the etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of emergency conditions in their professional activities

#### 1.7 Interdisciplinary links with subsequent disciplines /practices"

te	Name of subsequent disciplines	Module "Socially significant endocrine diseases"		
m No	•			
1.	Outpatient therapy	+		
2.	Clinical pharmacology	+		
3.	Anesthesiology, resuscitation, intensive care	+		
4.	Differential diagnostics in cardiology	+		

 $1.8. \ Requirements \ for \ the \ results \ of \ the \ internship \\ Mastering \ the \ module \ "Socially \ significant \ endocrine \ diseases" \ is \ aimed \ at \ the \ formation \ and \ improvement \ of \ the \ following \ universal \ (UC),$ general cultural (GPC) and professional competencies (PC): UC -6; GPC-5,7,11; PC-1-8,12,14

No. p/p		Code and name of the competency achievement indicator	As a result of studying the academic discipline "Outpatient Therapy", the student must:					
P/P	competence	mucator	Know	Be able to	To own			
Un	iversal competencies							
	UC -6. Capable of identifying and to implement priorities of one's own activities and ways of improving them based on self-assessment and lifelong learning	AI UC-6.1. Assesses personal, situational, and time resources and utilizes them optimally to complete assigned tasks.  AI UC-6.2 . Plans his/her activities within the framework of professional tasks.  AI UC-6.3 . Conducts critical self-analysis of the results of one's own activities.  AI UC-6.4 . Identifies priorities for professional growth and ways to improve one's own performance based on self-assessment against selected criteria.	Priorities for professional growth and ways to improve one's own performance based on self-assessment	Assess your capabilities and their limits for success completion of assigned tasks, systematize theoretical knowledge to solve practical problems	The ability to provide a detailed plan of one's professional activities			
	General professi	onal competencies						
	GPC-5. Capable of assessing morphofunctional, physiological states and pathological processes in the	interaction with the external environment under normal and pathological conditions. <b>AI GPC-5.2</b> . Knowledge of etiology, pathogenesis, morphogenesis, pathomorphism of disease development, and basic concepts of nosology.	Morphofunctional , physiological states and pathological processes in the human body for solving	human body to solve professional	The ability to assess the physical development of the body, data from medical examinations of various contingents			
	human body to	AI GPC-5.3 . Understands the morphofunctional and	professional	problems	and periodic			

solve professional	physiological state indicators of a healthy person and can	problems		medical
problems	measure/determine them.	1		examinations to
	AI GPC-5.4 . Uses indicators of morphofunctional,			solve a professional
	physiological state, and pathological processes to examine			problem
	the human body to establish a diagnosis, prescribe			
	treatment, and monitor its effectiveness and safety.			
	AI GPC-5.5 . Analyzes macroscopic and microscopic			
	changes in normal and pathologically altered tissues and			
	organs.			
	AI GPC-5.6. Interprets biopsy and surgical specimen			
	results to solve professional problems and formulate a			
	diagnosis in accordance with the ICD.			
	AI GPC-7.1 . Selects medications based on their	Mechanisms of	Prescribe treatment	Ability
	pharmacokinetic and pharmacodynamic characteristics	action of drugs	to patients with	selection of a drug
	for the treatment of patients with various nosological	based on their	various nosological	based on a
	entities in outpatient and inpatient settings.	pharmacokinetic	forms in outpatient	
	AI GPC-7.2 . Selects the optimal minimum of the most	and	settings and monitor	the nature of its
<b>GPC-7.</b> Capable of	effective medications, taking into account convenient	pharmacodynami	its effectiveness and	pharmacokinetics
prescribing	methods of administration and the patient's financial	c characteristics	safety	genetic and
treatment and	ability to purchase medications.	for the treatment		pharmacodynamic
monitoring its	AI GPC-7.3. Explains the primary and secondary effects	of patients with		characteristics for
effectiveness and	of medications, the effects of their combined use, and	various		the treatment of
safety.	interactions with food, taking into account	nosological forms		patients with
	morphofunctional characteristics, physiological	in outpatient		various nosological
	conditions, and pathological processes in the human	settings.		forms in outpatient
	body.			settings
	AI GPC-7.4 . Prescribes medications for the treatment of			
	diseases and correction of pathological conditions, based			
	on the pharmacokinetics and pharmacodynamics of the			

	drugs.  AI GPC-7.5 takes into account morphofunctional characteristics, physiological states, and pathological processes in the human body when selecting over-the-counter medications and other pharmacy products.  AI GPC-7.6 . Analyzes the results of potential drug interactions when various medications are used in combination.  AI GPC-7.7 . Evaluates the efficacy and safety of drug therapy using a combination of clinical, laboratory, instrumental, and other diagnostic methods.			
GPC- 11. Able to prepare and apply scientific, research and production, design, organizational and managerial, and regulatory documentation in the healthcare system.	situations, searches for and selects scientific, regulatory, and organizational documentation in accordance with established objectives.	Scientific, research and production, design, organizational, managerial and regulatory documentation in the healthcare system	Prepare and apply scientific, scientific-industrial, design, organizational-managerial and regulatory documentation in the healthcare system, implement search and selection of scientific, regulatory, legal and organizational documentation in accordance with the specified objectives	Ability conduct scientific and practical research, analyze information using the historical method and prepare publications based on the research results

	Professional competencies					
PC-1		AI PC - 1.1. Identifies clinical signs of conditions	Clinical signs of	Identify and provide	Skills in providing	
Able	to provide		conditions	emergency medical	medical care in	
medica	al care in	AI PC - 1.2. Provides emergency medical care to patients	requiring	care to patients with	emergency and	
urgent	and	with sudden acute illnesses, conditions, and exacerbations	emergency	sudden acute	urgent situations to	
emerge	•	of chronic diseases without obvious signs of a threat to	medical care	illnesses, conditions,	patients with	
situatio	ons	the patient's life.		and exacerbations of	sudden acute	
		AI PC - 1.3. Identifies conditions requiring emergency		chronic diseases	illnesses,	
		medical care.		without obvious	conditions, and	
		AI PC - 1.4. Provides emergency medical care to patients		signs of a threat to	exacerbation of	
		with life-threatening conditions.		the patient's life.	chronic diseases	
		AI PC -1.5. Detects signs of sudden cessation of blood			without obvious	
		circulation and breathing.			signs of a threat to	
		AI PC - 1.6. Performs basic cardiopulmonary			the patient's life	
		resuscitation in combination with electrical impulse				
		therapy (defibrillation) in the event of clinical death of a				
		patient (in case of sudden cessation of blood circulation				
		and/or breathing).				
PC-2.		AI PC -2 .1. Establishes contact with the patient.	Algorithms for	Collect and analyze	_	
Capabl		AI PC -2 .2.Collects complaints, specifies them,	collecting	information about	complaints, life	
collect	C		complaints, life	the onset of the	history and medical	
analyzi	0	AI PC -2.3. Collects and analyzes information about the	history and	disease, the presence	history of the	
compla	· ·	onset of the disease, the presence of risk factors, the	medical history of	of risk factors, the	patient in order to	
-	and medical	dynamics of symptom development, and the course of the	the patient for the	dynamics of the	establish a	
history		disease.	purpose of	development of	diagnosis	
-		AI PC -2.4. Analyzes the timing of the first and repeated	establishing a	symptoms and the		
establis		requests for medical care, the volume of therapy	diagnosis	course of the disease		
diagno	sis	administered, and its effectiveness.				
		AI PC -2.5. Collects and evaluates information about the				

	medical history, including data on past illnesses, injuries and surgical interventions, hereditary, professional			
PC-3. Able to conduct a physical examination of a patient and analyze the results of additional examination methods in order to establish a diagnosis	auscultation) and interprets the results  AI PC-3.2. Justifies the necessity, scope, sequence of diagnostic measures (laboratory, instrumental) and referral of the patient to specialist doctors for consultations  AI PC-3.3. Analyzes the patient examination results and,	Methodology for conducting a complete physical examination of the patient and the International Statistical Classification of Diseases and Related Health Problems (ICD)	Analyze the obtained results of the patient's examination	Skills for early diagnosis of diseases of internal organs and

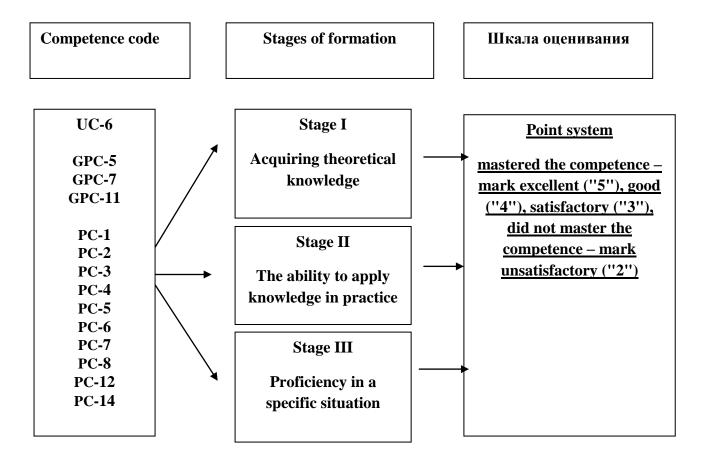
	Statistical Classification of Diseases and Related Health Problems (ICD). <b>AI PC-3.6.</b> Conducts differential diagnostics of internal organ diseases from other diseases			
PC-4. Capable of determining indications for hospitalization, indications for emergency, including specialized emergency, medical care	AI PC -4.1.Determines medical indications for the provision of emergency, including specialized emergency, medical care  AI PC-4.2.Refer the patient for specialized medical care in an inpatient setting or in a day hospital setting if there are medical indications in accordance with the current procedures for providing medical care, clinical guidelines (treatment protocols) on issues of providing medical care, taking into account the standards of medical care  AI PC-4.3.Uses medical devices in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) on issues of	Indications for hospitalization, indications forprovision of emergency, including specialized emergency , medical care	Determine medical indications for the provision of emergency, including emergency specialized, medical care and refer the patient for specialized medical care in an inpatient setting or in a day hospital setting	Skills in using medical devices in accordance with current procedures for providing medical care, clinical guidelines (treatment protocols) on issues of providing medical care, and care taking into
PC-5. Able to prescribe treatment to patients	providing medical care, care taking into account the standards of medical care  AI PC -5. 1. Develops a treatment plan for the patient taking into account the diagnosis, age of the patient, clinical picture of the disease, presence of complications, concomitant pathology, in accordance with the current procedures for the provision of medical care, clinical	Clinical guidelines (treatment protocols) for the provision of	Prepares a treatment plan for the patient taking into account the diagnosis, age of the patient, clinical	account medical care standards  Skills in providing palliative care in collaboration with specialist doctors and other
	recommendations (treatment protocols) on issues of providing medical care, taking into account the standards of medical care.  AI PC -5. 2. Prescribes medications, medical devices, and therapeutic nutrition taking into account the diagnosis, age, and clinical picture of the disease in	medical care, taking into account the standards of medical care	picture of the disease, presence of complications, concomitant pathology, in accordance with	healthcare workers

PC-6. Capable of monitoring the effectiveness and safety of the therapy being administered	accordance with current procedures for the provision of medical care, clinical guidelines, and standards of medical care.  AI PC -5. 3. Prescribes non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with current procedures for the provision of medical care, clinical guidelines, and standards of medical care.  AI PC -5.4 . Provides palliative care in collaboration with specialist doctors and other healthcare workers.  AI PC -5. 5. Organizes personalized treatment for patients, including pregnant women, elderly and senile patients.  AI PC-6.1. Evaluates the efficacy and safety of drugs, medical devices, nutritional supplements, and other treatment methods.  AI PC-6.2. Takes into account the pharmacodynamics and pharmacokinetics of key drug groups, prevents the development of adverse drug reactions, and corrects them if they occur.	Pharmacodynami cs and pharmacokinetics of the main groups of drugs	current procedures for the provision of medical care, clinical recommendations (treatment protocols) on issues of providing medical care, taking into account the standards of medical care  To evaluate the effectiveness and safety of the use of drugs, medical devices, therapeutic nutrition and other treatment methods	Skills in monitoring the effectiveness and safety of the therapy
PC-7. Capable of	AI PC -7.1. Identifies signs of temporary disability and signs of persistent impairment of body functions caused	Signs of temporary	Conduct an examination of	Skills in conducting an
referring a patient	by diseases, consequences of injuries, or defects.	disability and	temporary disability	examination of
with a persistent	AI PC-7.2. Participates in the examination of temporary	signs of persistent	and prepare the	temporary
impairment of	disability and works as part of the medical commission	impairment of	necessary medical	disability and
bodily functions	conducting the examination of temporary disability.	body functions	documentation for	preparing the
caused by diseases,	AI PC-7.3. Prepares the necessary medical	caused by	the implementation	necessary medical

consequences of injuries or defects for medical and social examination	documentation for medical and social assessments in federal government institutions for medical and social assessments.  AI PC-7.4. Refer a patient with a persistent impairment of bodily functions caused by illness, consequences of injury, or defects for medical and social examination.	diseases, consequences of injuries or	of medical and social examination in federal state institutions of medical and social examination	documentation for the implementation of medical and social examination in federal state institutions of medical and social examination
PC-8. Capable of implementing and monitoring the effectiveness of individual patient rehabilitation programs	AI PC-8.1. Determines medical indications for medical rehabilitation or habilitation of persons with disabilities, in accordance with current procedures for the provision of medical care, clinical guidelines for the provision of medical care, and taking into account standards of medical care.  AI PC-8.2. Performs medical rehabilitation activities for the patient, in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) on issues of providing medical care, taking into account the standards of medical specialists to carry out rehabilitation measures for the patient, taking into account the diagnosis and in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) on issues of providing medical care, taking into account the standards of medical care.  AI PC 8.4. Monitors and evaluates the effectiveness and safety	Medical indications for carrying out medical rehabilitation or habilitation measures for disabled people, in accordance with the current procedures for the provision of medical care, clinical guidelines for the provision of medical care, taking into account the standards of medical care	Determine medical indications for carrying out medical rehabilitation or habilitation measures for disabled people, in accordance with current procedures for the provision of medical care, clinical guidelines for the provision of medical care, taking into account the standards of medical care	Skills implementation and monitoring of the effectiveness of individual patient rehabilitation programs

	rehabilitation measures, taking into account the diagnosis and in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care			
PC-12. Ready to maintain medical records, including in electronic form	AI PC -12.1 .Completes medical documentation, including electronically AI PC -12.2 .Works with personal data of patients and information constituting a medical secret AI12.3. Prepares documents for referring patients for hospitalization, consultation, spa treatment, and medical and social assessment.	The main one medical documentation and how to fill it out	Fill out medical documentation, including in electronic form	Skills working with personal data of patients and information constituting a medical secret
PC-14. Capable of participating in research activities	AI PC -14. 1. Participates in scientific research AI PC -14. 2. Analyzes medical information based on evidence-based medicine AI PC -14. 3. Introduces new methods and techniques into practical healthcare aimed at protecting the health of the adult population.	Evidence-based medical information	Analyze medical information based on evidence-based medicine	Skills in introducing new methods and techniques into practical healthcare aimed at protecting the health of the adult population

#### 1.9. Stages of competence developmentand description of rating scales



#### 2. Structure and content of practice

#### 2. 1. Scope of practice

Scope of practice		
Total labor intensity in hours, total	432	
Labor intensity in hours of the Module "Socially significant endocrine diseases"	36	
Total workload in credit units, total	12	
Type of intermediate assessment	credit	wi
	grade	

#### 2.2. Type of practice

Type of practice: industrial

Industrial internship is a mandatory part of the curriculum, directly focused on students' professional and practical training. During the program, students are encouraged to master a set of required practical skills.

#### 2.3. Criteria for assessing students' knowledge .

The assessment of learning outcomes is carried out in accordance with the "Regulations on the system for assessing the learning outcomes of students of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy of the Ministry of Health of the Russian Federation".

The basis for determining the level of knowledge, skills, and abilities are the assessment criteria - completeness and correctness:

- correct, precise answer;
- correct, but incomplete or inaccurate answer;
- incorrect answer;
- no answer.

When assigning marks, the classification of errors and their quality are taken into account:

- -gross errors;
- similar errors;
- minor errors;
- shortcomings.

### Criteria for assessing the theoretical part

- "5" for the depth and completeness of mastery of the content of the educational material, in which the student can easily navigate, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present their answer competently and logically.
- "4" the student has fully mastered the educational material, is oriented in it, and expresses his answer competently, but the content and form contain some inaccuracies.
- "3" the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, and does not know how to express and justify his judgments.
- "2" the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and the secondary, makes mistakes in defining concepts, distorts their meaning, and presents the material in a disorderly and uncertain manner.

#### Test control evaluation criteria

- "5" when testing, up to 10% of incorrect answers are allowed.
- "4" allows up to 20% of incorrect answers during testing.
- "3" allows up to 30% of incorrect answers during testing.
- "2" during testing, more than 30% of incorrect answers are allowed.

#### Criteria for assessing the practical part

- "5" the student has fully mastered the practical skills and abilities provided for in the work program of industrial practice.
- "4" the student has mastered the practical skills and abilities provided for in the work program of industrial practice, but allows for some inaccuracies.
- "3" the student has only some practical skills and abilities.
- "2" the student has only some practical skills and abilities and performs them with gross errors.

#### Interim assessment (test lesson) on a five-point scale

The midterm assessment is conducted by a practice commission consisting of a course supervisor from the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy and a practice supervisor from a medical organization.

- "5" (excellent) for the depth and completeness of the student's understanding of the course material, which the student navigates easily, for their ability to connect theoretical and practical questions, express and justify their judgments, and present their answers clearly and logically; Allows up to 10% incorrect answers during testing. The practical skills and abilities required by the internship program have been fully mastered.
- "4" good the student has fully mastered the course material, is familiar with it, and presents answers clearly, but the content and format contain some inaccuracies; during testing, the student makes up to 20% incorrect answers. The student has fully mastered the practical skills and abilities required for the course, but makes some inaccuracies.
- "3" (satisfactory) the student has mastered the knowledge and understanding of the main concepts of the course material, but presents it incompletely and inconsistently, and is unable to express and justify their judgments; during testing, the student makes up to 30% incorrect answers. The student possesses only some practical skills and abilities.
- "2" (unsatisfactory) the student has a fragmented and unsystematic knowledge of the course material, is unable to distinguish between essential and non-essential concepts, makes errors in defining concepts, distorts their meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% incorrect answers during testing. The student performs practical skills and abilities with significant errors.

#### 3. Educational, methodological, logistical and informational support of the discipline

#### 3.1. Main literature

No.	Name	
1	Dedov, I. I.	http://www.studmedlib.ru/ru/book/ISBN9785423501594.html
	Endocrinology: textbook /	
	I. I. Dedov, G. A.	
	Melnichenko, V. V.	
	Fadeev - Moscow:Litterra	
	, 2015 416 p ISBN	
	978-5-4235-0159-4	
	Text: electronic (accessed:	
	06.05.2021) Access	
	mode: by subscription.	
2	Endocrinology: national	http://www.studmedlib.ru/book/ISBN9785970446041.html
	guidelines / edited by I. I.	
	Dedov, G. A.	
	Melnichenko 2nd ed.,	
	revised and enlarged	
	Moscow: GEOTAR-	
	Media, 2018 1112 p.: ill.	
	- 1112 p ISBN 978-5-	
	9704-4604-1 Text:	
	electronic (accessed:	
	05.05.2021) Access	
	mode: by subscription.	

3	Ameto, A. S.	http://www.studmedlib.ru/book/ISBN9785970436134.html
	Endocrinology / A. S.	
	Ametov, S. B. Shustov,	
	Yu. Sh. Khalimov, -	
	Moscow: GEOTAR-	
	Media, 2016 352 p	
	ISBN 978-5-9704-3613-4.	
	- Text : electronic (date of	
	receipt: 06.05.2021)	
	Access mode : by	
	subscription.	

#### 3.2. Additional References:

1	1. Murtazin, A. I. Endocrinology.	http://www.studmedlib.ru/book/ISBN97859704606
	Standards of medical care. Quality	<u>58.html</u>
	assessment criteria. Pharmacological	
	reference book / compiled by A. I.	
	Murtazin Moscow: GEOTAR-	
	Media, 2021 560 p. (Series	
	"Standards of Medical Care") -	
	ISBN 978-5-9704-6065-8 Text:	
	electronic (date accessed:	
	05/06/2021) Access mode: by	
	subscription.	
	2. Mkrtumyan, A. M. Emergency	http://www.studmedlib.ru/book/ISBN97859704514
	endocrinology / Mkrtumyan A.	<u>72.html</u>
2	M.,Nelaeva A. A Moscow:	
	GEOTAR-Media, 2019 128 p	
	ISBN 978-5-9704-5147-2 Text:	
	electronic (accessed: 05.05.2021)	
	Access mode: by subscription.	
	3. Dedov, I. I. Personalized	http://www.studmedlib.ru/book/ISBN97859704461
3	endocrinology in clinical examples /	<u>71.html</u>
	Dedova I. I Moscow: GEOTAR-	
	Media, 2018 440 p ISBN 978-5-	
	9704-4617-1 Text: electronic (date	
	accessed: 05.05.2021) Access	
	mode: by subscription.	

# 3. 3. Educational and methodological support for practice, prepared by the department staff

1. Naryshkina S.V., Shtilerman A.L., Tanchenko O.A. Diabetic retinopathy. Study guide. - Blagoveshchensk, 2014. - 115 p. (UMO stamp + CD)

- 2. Naryshkina S.V., Olifirova O.S., Tanchenko O.A. Diagnostics and treatment of nodular diseases of the thyroid gland. Study guide. Blagoveshchensk, 2015. 110 p. (UMO stamp + CD)
- 3. Naryshkina S.V., Shtilerman A.L., Tanchenko O.A. Endocrine ophthalmopathy. Study guide.
- Blagoveshchensk, 2018. 120 p. (UMO stamp + CD)

#### Multimedia materials, electronic library, electronic library systems (ELS) Multimedia materials on electronic media (CD, DVD)

Videos and photographs used in teaching students (prepared by department staff)

#### Videos:

- 1. Genetics of diabetes
- 2. Diabetic nephropathy
- 3. Diabetic foot syndrome
- 4. Hypothalamic syndrome
- 5. Treatment of complications of diabetes
- 6. Acromegaly
- 7. Pathogenesis of diabetes mellitus
- 8. Modern approaches to the treatment of diabetes mellitus

#### **Photo materials:**

- 1. Photo album on diabetic foot syndrome
- 2. Photo demonstration of patients with acromegaly
- 3. Photo demonstration of patients with thyrotoxicosis
- 4. Photo album on hypothyroidism
- 5. Photo demonstration of patients with Cushing's disease
- 6. Photo album of the diabetes school

## List of albums, stands, tables, tablets, handouts used in training (prepared by department staff)

#### **Electronic materials**

- 1. High blood pressure. Patient education program.
- 2. Correction of dyslipidemia. Interactive clinical situations
- 3. Endocrinology "National Guide"
- 4. Type 1 diabetes
- 5. Type 2 diabetes
- 6. School of Diabetes

#### 3.4. Material and technical base for conducting internship

- Pedometer
- Pulse oximeter
- Glucometer
- Dummy structure of the heart
- 12-channel electrocardiograph ECG 9110k
- Ultrasound device " Aloka " 3500 (Japan)
- X-ray tomography scanner CT GEBRIGHTSPEED 16 SLICE (Germany)
- X-ray machine "Electron" (Russia)
- Magnetic resonance imaging scanner TOSHIBA VantageElan 1.5T (Japan)
- Electrolyte analyzer "Cibacorning" (UK)
- Biochemical analyzer "VTS-370" (Spain)

#### 3. 5. Professional databases, information and reference systems, electronic

### educational resources

Item No.	Resource name	Resource Description	Access	Resource address
Electronic library systems				
1.	Student Consultant. Medical University Electronic Library	For students and faculty of medical and pharmaceutical universities. Provides access to electronic versions of textbooks, teaching aids, and periodicals.	library, individual access	http://www.studmedlib.ru/
2.	"Doctor's Consultant" Electronic Medical Library.	The materials posted in the library have been developed leading Russian experts on the basis of modern scientific knowledge (evidence-based medicine). The information has been prepared taking into account the position of scientific practical medical society (world, European and Russian) according to the relevant specialties. All materials have passed mandatory independent review	library, individual access	http://www.rosmedlib.ru/cgi- bin/mb4x
3.	PubMed	MedLine, the largest medical bibliographic database. It documents medical and biological	library, free access	http://www.ncbi.nlm.nih.gov/pubmed/

		articles from		
		specialized		
		literature and		
		provides links		
		to full-text		
	0.6.1	articles.	1.1	
4.	Oxford Medicine	A collection of	library,	http://www.oxfordmedici ne.com
	Online	Oxford Press	free	
		medical	access	
		publications,		
		bringing		
		together over		
		350 titles into a		
		single, cross-		
		searchable		
		resource.		
		Publications		
		include The		
		Oxford		
		Handbook of		
		Clinical		
		Medicine and		
		The Oxford		
		Textbook of		
		Medicine, the		
		electronic		
		versions of		
		which are		
		continually		
		updated.		
		Reference		
		information on		
		physiology, cell		
		biology,		
		genetics,		
		biochemistry,		
5.	Human Biology	immunology,	library,	http://humbio.ru/
	Knowledge Base	and pathology.	free access	
		(Source: Institute		
		of Molecular		
		Genetics,		
		Russian		
		Academy of		
		Sciences .)		
		Free reference		
		books,		
		encyclopedias,		
6.	Medical online	books,	library,	http://med-lib.ru/
``	library	monographs,	free access	
		essays, English-		
		language		
		literature, tests.		

		Inform	ation systems	3
7.	Russian	A professional	library,	http://www.rmass.ru/
	Medical	online resource.	free	
	Association	Purpose: to	access	
	11550 11411011	facilitate the		
		effective		
		professional		
		activities of		
		medical		
		personnel.		
		Contains the		
		charter,		
		personnel,		
		structure,		
		membership		
		rules, and		
		information		
		about the		
		Russian		
		Medical Union.		
8.	Web medicine	The website	library,	http://webmed.irkutsk.ru/
0.		provides a	free	
		directory of	access	
		professional		
		medical		
		resources,		
		including links		
		to the most authoritative		
		specialized		
		websites,		
		journals,		
		societies, as		
		well as useful		
		documents and		
		programs. It is		
		intended for		
		physicians,		
		students, and staff of medical		
		universities and		
		research		
		institutions.		
	•		atabases	,
9.	World Health	The site	library,	http://www.who.int/ru/
	Organization	contains news,	free	
		statistics on	access	
		countries that		
		are members of		
		the World		
		Health		
		Organization,		
		fact sheets,		
		reports, WHO		

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		publications,		
		and much more.		
10.	Ministry of	Website of the	library,	http://www.minobrnauki.gov.ru
	Science and	Ministry of	free access	
	higher education	Science and		
	Russian	Higher		
	Federation	Education		
	rederation			
		The Russian		
		Federation		
		contains news,		
		newsletters,		
		reports,		
		publications and		
		much more		
11.	Ministry of	Website of the	library,	https://edu.gov.ru/
11.	Education		free access	https://edu.gov.ru/
		Ministry of	free access	
	Russian	Education of the		
	Federation	Russian		
		Federation		
		contains news,		
		newsletters,		
		reports,		
		publications and		
		much more		
12.	Federal Portal	A single	library,	http://www.edu.ru/
12.	"Russian	window for	free	ittp://www.cdd.it/
	Education"	access to	access	http://window.edu.ru/catalog/?n
	Education	educational	access	http://window.edu.ru/catalog/?p rubr =2.2.81.1
		resources.		
		This portal		
		provides access		
		to textbooks on		
		all areas of		
		medicine and		
		healthcare.		
	<u> </u>		ı raphicbasesda	ta .
13.	Database	Created at the	library,	http://www.scsml.rssi.ru/
13.	"Russian	Central	free	Mapa, and an accommission of the second
	Medicine"	Scientific and	access	
		Methodological	access	
		Library, it		
		covers the		
		entire collection		
		since 1988. The		
		database		
		contains		
		bibliographic		
		descriptions of		
		articles from		
		Russian		
		journals and		
		collections,		
		dissertations		
		and their		
L	<u> </u>	and then		

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14.	eLIBRARY.RU	abstracts, as well as Russian and foreign books, institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related fields of biology, biophysics, biochemistry, psychology, etc. A Russian	library,	http://elibrary.ru/defaultx.asp
		information portal in the fields of science, technology, medicine, and education, containing abstracts and full texts of more than 13 million scientific articles and publications. eLIBRARY.RU platform offers electronic versions of over 2,000 Russian scientific and technical journals, including over 1,000 open- access journals .	free access	
15.	Portal Electronic Library of Dissertations	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	library, free access	http://diss.rsl.ru/?menu=disscatalog/
16.	Medline.ru	Biomedical portal for	library, free access	http://www.medline.ru

specialists. Biomedical journal. Last	
updated	
February 7, 2021.	

## 3.6. Licensed and freely distributed software used in the educational process

	I. Commercial software products			
1.	MS Windows 7 Pro operating system	License number 48381779		
2.	Operating system MS Windows 10 Pro,	AGREEMENT No. 142 A dated December		
	MSOffice	25, 2019		
3.	MS Office	License numbers : 43234783, 67810502,		
		67580703, 64399692, 62795141, 61350919		
4.	Kaspersky Endpoint Security for Business	Agreement No. 977/20 dated 12/24/2020		
	Advanced			
5.	1 C: PROF University	LICENSE AGREEMENT No. 2191 dated		
		October 15, 2020		
6.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated		
		November 11, 2020		
	II . Freely distrib			
		Freely distributed		
1.	Google Chrome	<u>Distribution Terms</u> :		
1.		https://play.google.com/about/play-		
		terms/index.html		
		Freely distributed		
		License Agreement for the Use of Yandex		
2.	Yandex Browser	Browser Software		
		https :// yandex . ru / legal /		
		browser_agreement /		
		Freely distributed		
3.	Dr.WebCureIt!	License Agreement: <a href="https://st.drweb.com/">https://st.drweb.com/</a>		
] .	Bi. Webcurett.	static / new - www / files / license _ CureIt _		
		<u>ru . pdf</u>		
		Freely distributed		
4.	OpenOffice	License: http://www.gnu.org/copyleft/		
		<u>lesser . html</u>		
		Freely distributed		
5.	LibreOffice	License: https://ru.libreoffice.org/about-		
		us / license /		

#### 3.7. Resources of the information and telecommunications network "Internet"

Interregional public organization "Society for Pharmacoeconomic Research" Standards of medical care (diseases of the endocrine system): http://www.rspor.ru/index.php?mod1=standarts3&mod2=db1 Journal of the Attending Physician: https://www.lvrach.ru

Federal Electronic Medical Library of the Ministry of Health of the Russian Federation:

http://www.femb.ru Federal State Budgetary Institution "National Medical Research Center of Endocrinology" of the Ministry of Health of the Russian Federation:

https://www.endocrincentr.ru

Website of the Russian Society of Cardiology: http://scardio.ru Standards of primary health care: <a href="https://minzdrav.gov.ru/ministry/61/22/stranitsa-979/stranitsa-983/1-standarty-pervichnoy">https://minzdrav.gov.ru/ministry/61/22/stranitsa-979/stranitsa-983/1-standarty-pervichnoy</a>-

medikosanitarnoy-pomosch i

Standards of specialized medical care:

https://minzdrav.gov.ru/ministry/61/22/stranitsa-979/stranitsa-983/2-standarty-spetsializirovannoymeditsinskoy-pomoschi

Procedures for providing medical care to the population of the Russian Federation:

https://minzdrav.gov.ru/ministry/61/4/stranitsa-857/poryadki-okazaniya-meditsinskoy-pomoschinaseleniyu-rossiyskoy-federatsii

#### 4. Evaluation Fund

### 4.1. Examples of test tasks for intermediate knowledge assessment

Test assignments for intermediate knowledge assessment (with sample answers) are conducted in the Moodle system.

Access mode: https://educ-amursma.ru/mod/quiz/view.php?id=5209

The total number of test tasks is 100.

Please select one of the suggested answers.

- 1. NORMAL SIZE OF THE THYROID GLAND
  - A) less than 30 ml
  - B) in women less than 25 ml, in men less than 18 ml
  - B) in women less than 18 ml, in men less than 25 ml
  - D) the calculation of standards is carried out individually
- 2. FOR THE DIAGNOSIS OF THYROTOXICOSIS, BLOOD DETERMINATION IS OF PRIOR IMPORTANCE
  - A) total and free T4
  - B) free fractions T3 and T4
  - B) free T3 and thyroid-stimulating hormone
  - C) thyroid-stimulating hormone and free T4
- 4. THE DURATION OF TREATMENT OF DIFFUSE TOXIC GOITER WITH THYREOSTATICS IS NOT LESS THAN
  - A) 12-18 months
  - B) 1-2 months
  - B) 3-4 months
  - D) 6-9 months

The correct answer is: 3, 4, 1

4.2. List of practical skills that a student should possess after completing the internship

- 1 Collect anamnesis and interview a patient with endocrine pathology
- 2 Properly conduct a physical examination of the patient (inspection, palpation, auscultation, measurement of blood pressure, determination of the properties of the arterial pulse, etc.) and identify the main objective data
- 3 Assess the patient's condition to decide whether medical care is needed
- Determine the minimum laboratory and instrumental studies necessary to establish a diagnosis
- Establish priorities for solving the patient's health problems: critical (terminal) condition, condition with pain syndrome, condition with a chronic disease, condition with an infectious disease, disability, condition of mentally ill patients
- 6 Interpret the obtained research results
- 7 To make a preliminary diagnosis is to synthesize information about the patient in order to determine the pathology and the causes that cause it
- **8** Outline the scope of additional research in accordance with the disease prognosis, to clarify the diagnosis and obtain a reliable result
- **9** Assess the severity of the patient's condition (mild, moderate, severe).
- 10 Formulate a clinical diagnosis
- 11 Use diagnostic algorithms (primary, concomitant, complications) taking into account the International Statistical Classification of Diseases and Related Health Problems (ICD)
- Formulate indications for the selected treatment method taking into account etiotropic and pathogenetic agents, justify pharmacotherapy in a specific patient with the main pathological syndromes and emergency conditions, determine the route of administration, regimen and dose of drugs, evaluate the effectiveness and safety of the treatment
- 13 Determine indications for outpatient treatment of the patient
- 14 Create a treatment plan for a specific patient
- 15 Be able to explain the mechanism of action of drugs
- 16 Use different methods of drug administration
- Write out prescriptions (taking into account social rights to subsidized drugs) and drugs that are on the subject-quantity register
- 18 Provide emergency assistance before the ambulance arrives
- 19 Analyze and interpret the results of modern diagnostic technologies
- 20 Apply basic methods of clinical and immunological examination and assessment of the functional state of the patient's body
- 21 Perform basic medical diagnostic and therapeutic measures to provide first aid in emergency and life-threatening conditions
- 22 Conduct resuscitation measures in the event of clinical death
- Timely identification of life-threatening disorders (acute blood loss, respiratory failure, pulmonary edema, hypertensive crisis, myocardial infarction, cardiac asthma, cardiac arrest, paroxysmal tachycardia, coma, anaphylactic shock), use methods for their immediate elimination, and carry out anti-shock measures
- 24 Determine indications for hospitalization of patients with endocrine pathology
- 25 Determine the patient's ability to work at the time of the initial examination and after completion of treatment
- Use legislative acts on the examination of temporary and permanent disability; establish the cause of temporary disability and the criteria for recovery and discharge to work
- 27 Correctly prepare documents certifying temporary disability
- Timely identification of signs of disability, prediction of disability group, preparation of documents for referral to the Medical and Social Expertise (MSE)
- 29 Timely identification of indications for rational employment and its proper implementation

- 30 Draw up an Individual Plan of Action for a disabled person
- Conduct medical examinations, draw up a medical examination plan, a plan for health measures; evaluate the quality and effectiveness of medical examinations
- 32 Provide the patient with recommendations on primary prevention and a healthy lifestyle
- 33 Select individuals for BCG vaccination and revaccination based on the results of mass tuberculin testing, evaluate the nature of the local vaccination reaction and possible post-vaccination complications; form high-risk groups for tuberculosis; and evaluate the effectiveness of patient follow-up.
- Correctly maintain and fill out medical documentation: outpatient card of the patient (form No. 025u-04), certificate of incapacity for work, control card of the patient registered with the dispensary (No. 095/u), referral to the Medical and Social Expertise (No. 088/u-97), referral for hospitalization (No. 070/u-04), registration card of the medical examination of the employee (No. 131 / u-DD), emergency notification of an acutely contagious patient (No. 058-u), passport of the medical station (No. 030/u-ter), doctor's diary (No. 039-u), sanatorium and resort card (No. 072/u-04), etc.
- 35 Be able to draw up annual medical reports and plans for clinical examination of patients

#### 4.3. List of questions for the test:

- 1. Functions and tasks of an endocrinologist
- 2. Organization of the activities of an endocrinologist
- 3. Accounting and reporting documentation of an endocrinologist
- 4. Criteria for the effectiveness of an endocrinologist
- 5. Oncological alertness in the work of an endocrinologist. A program for screening patients with suspected cancer in an outpatient setting.
- 6. Clinical examination. Criteria for the effectiveness of clinical examination of patients with endocrine pathology
- 7. Preventive counseling as part of a medical examination of the adult population with endocrine pathology (brief and in-depth preventive counseling)
- 8. Deontological principles in the work of an endocrinologist
- 9. Outpatient examination options for diagnosis verification. Endocrinologist's approach
- 10. A framework for establishing a preliminary and detailed clinical diagnosis for diabetes mellitus, metabolic syndrome, and thyroid disease. Indications for hospitalization.
- 11. Methodology for writing an annual medical report and observation plan for a dispensary patient
- 12. Spa Treatment. General Indications and Contraindications for Spa Treatment
- 13. Primary prevention of socially significant diseases (diabetes mellitus, etc.).

#### MODULE 8 "CARDIOPULMONARY RESUSCITATION"

#### 1.2. Objectives and tasks of the practice module.

The objective of the internship is to develop a concept of "cardiopulmonary resuscitation," an understanding of the mechanisms of development of critical conditions, methods of their diagnosis and correction; to teach the provision of resuscitation care in case of cardiac arrest; and to provide first aid in emergency situations.

The objectives of the practical training are to master the modern algorithm for conducting cardiopulmonary resuscitation at the stages of patient evacuation, ensuring and maintaining airway patency, ensuring vascular access, and methods for ensuring patient safety using vital function monitoring.

## 1.3. The place of practice in the structure of the main professional educational program of higher education.

In accordance with the Federal State Educational Standard of Higher Education (2020), the "Cardiopulmonary Resuscitation" module of the "General Medical Practice" industrial practice course for the specialty 31.05.01 General Medicine (2020) is part of the core component , Block 2. The total workload is 18 hours and is conducted in the 11th semester of the 6th year student. The assessment form is a credit test with an assessment in the 11th semester .

#### 1.4. Forms of practice control.

Current monitoring of students' implementation of the internship program is carried out daily by internship supervisors in the form of monitoring the completion of individual internship assignments, keeping internship diaries, and mastering practical skills.

The midterm assessment (test with assessment) consists of a theoretical part - an interview on theoretical questions, testing in the Moodle system, and a practical part - testing the acquisition of practical skills and abilities, and assessment of reporting forms.

#### 1.5. Indication of forms of reporting on practice.

Before the internship, the student receives the following reporting documents: "Internship schedule", "Individual assignment for internship".

During the internship, the student maintains a "Internship Diary" in accordance with established requirements and provides a properly completed "Student Characteristic".

The teacher responsible for conducting the internship provides the Internship Department with the "Certification Sheet for Students' Internship", "Industrial Internship Diary", "Individual Assignment for Internship", and "Internship Schedule".

#### 1.6. Requirements for students.

## Physics, Mathematics, Anatomy, Biochemistry, Pathophysiology, Clinical Pathophysiology, Topographic Anatomy and Operative Surgery, Pharmacology

#### Knowledge:

- knows the basic laws of physics, physical phenomena and patterns underlying the processes occurring in the human body;
- knows the physical principles of the functioning of medical equipment, the structure and purpose of medical equipment;
- knows the physical and chemical essence of the processes occurring in a living organism at the molecular, cellular, tissue and organ levels;
- knows the classification and main characteristics of drugs, pharmacodynamics and pharmacokinetics, indications and contraindications for the use of drugs, side effects;
- knows the basic patterns of development and vital activity of the organism based on the structural organization of cells, tissues and organs;
- knows the anatomical and physiological, age-related, gender-related and individual characteristics of the structure and development of a healthy and sick organism;

#### Skills:

- uses physical, chemical and biological equipment;
- uses various dosage forms in the treatment of certain pathological conditions, based onBased
   on their characteristics, assess possible manifestations of drug overdose and ways to eliminate them;
- determines and evaluates the results of electrocardiography, spirography, thermometry; hematological parameters; distinguishes normal values of metabolite levels (glucose, urea, bilirubin, uric acid, lactic and pyruvic acids, etc.) in blood serum from pathologically altered ones, reads a proteinogram and explains the reasons for the differences;

#### **Skills:**

- has a command of medical and anatomical concepts;
- has the skills to use drugs in the treatment, rehabilitation and prevention of various diseases and pathological conditions.

# Propaedeutics of internal diseases, Hospital therapy, Hospital surgery, pediatric surgery, Clinical pharmacology, Outpatient therapy, Emergency conditions in therapy

#### Knowledge:

- knows the clinical picture, features of the course and possible complications of the most common diseases that occur in a typical form in different age groups;
- knows the methods of diagnostics, the diagnostic capabilities of methods of direct examination of
  patients with therapeutic, surgical and infectious profiles, modern methods of clinical, laboratory,
  instrumental examination of patients (including endoscopic, radiological methods, ultrasound
  diagnostics);
- Knows the specifics of providing first aid and resuscitation measures to victims of road traffic injuries, drowning, electrical injury, strangulation asphyxia, methods for restoring the patency of the upper respiratory tract, clinical symptoms of injuries to the musculoskeletal system, chest, abdominal cavity, pelvic cavity, head and cranial cavity.

#### Skills:

- determines the patient's status: collect anamnesis, interview the patient and/or his relatives, conduct
   a physical examination of the patient (inspection, palpation, auscultation, measurement of blood
   pressure, determination of the properties of the arterial pulse, etc.);
- assesses the patient's condition to decide on the need for medical care, conducts a primary examination of systems and organs: nervous, endocrine, immune, respiratory, cardiovascular, blood and hematopoietic organs, digestive, urinary, reproductive, musculoskeletal and joint, eyes, ear, throat, nose;
- sets priorities for solving the patient's health problems: critical (terminal) condition, condition with pain syndrome, condition with a chronic disease, condition with an infectious disease, disability,

geriatric problems, condition of mentally ill patients;

- uses various methods of administering medications;
- knows how to outline the scope of additional research in accordance with the disease prognosis, to clarify the diagnosis and obtain a reliable result;
- monitors hemodynamic and respiratory parameters;
- carries out resuscitation measures in the event of clinical death;

#### **Skills:**

- has experience in interpreting laboratory and diagnostic methods;
- ownsalgorithmclinicaldiagnosis;
- has mastered the basic medical diagnostic and therapeutic measures to provide first aid in emergency and life-threatening conditions.

#### 1.7 Interdisciplinary links with subsequent disciplines/practices

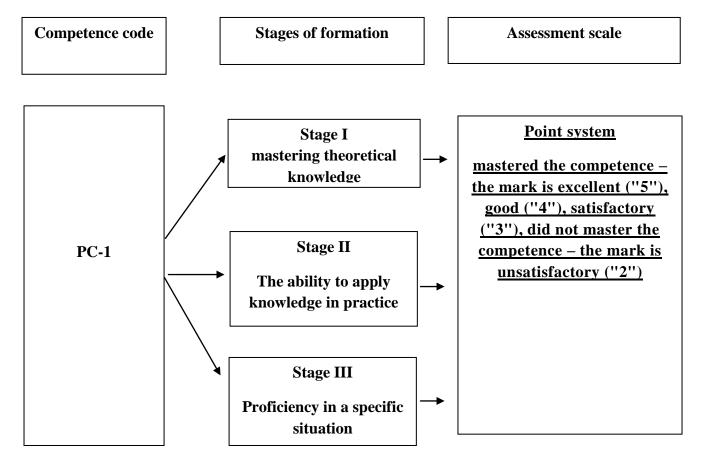
	Name of subsequent	Module "Socially significant endocrine
te	disciplines	diseases"
m		
No		
•		
	Outpatient therapy	+
1.		
	Clinical pharmacology	+
2.		
	Anesthesiology, resuscitation,	+
3.	intensive care	
	Differential diagnostics in	+
4.	cardiology	

### 1.8. Requirements for the results of the internship.

During the course of mastering the practical training "Cardiopulmonary Resuscitation", the student develops and improves the following competencies: Mastering the module "Cardiopulmonary Resuscitation" is aimed at improving the following competencies: professional (PC) PC-1.

No. p/p	Code and name of competence	As a result of mastering the practice of "Cardiopulmonary Resuscitation", the student should:			Indicator of achievement of competence
		Know	Be able to	To own	
		Universal o	competencies		
Pro	fessional competencies				
	PC-1		- carry out a full	<ul> <li>algorithm for</li> </ul>	AI PC -1.5.
	Able to provide		range of resuscitation	performing basic	Reveals signs of sudden
	medical care in		measures in case of	medical diagnostic and	cessation of blood
	urgent and		circulatory arrest	therapeutic measures	circulation and breathing
	emergency situations			to perform CPR.	AI PC - 1.6.
					Performs basic
		- Factures of providing medical			cardiopulmonary
		- Features of providing medical			resuscitation in
		care in emergency situations.			combination with
		<ul> <li>methodsconductingurgentevents</li> </ul>			electrical impulse therapy
					(defibrillation) in the
					event of clinical death of
					a patient (in case of
					sudden cessation of blood
					circulation and/or
					breathing).

### 1.9. Stages of competence development and descriptions of assessment scales.



#### Forms of training organization and types of control.

Forms of practical training organization: Module 8 "Cardiopulmonary Resuscitation" involves work in the Accreditation and Simulation Center of the Academy (hereinafter ASC), where students practice practical cardiopulmonary resuscitation skills on simulators and robotic simulators.

Sections of work in the ASC:

- 1) Basic cardiopulmonary resuscitation complex
- 2) Advanced cardiopulmonary resuscitation complex

Current monitoring of students' implementation of the internship program is carried out daily by internship supervisors in the form of monitoring the completion of individual internship assignments, keeping internship diaries, and mastering practical skills.

The midterm assessment (test with assessment) consists of a theoretical part - an interview on theoretical questions, testing in the Moodle system, and a practical part - testing the acquisition of practical skills and abilities, and assessment of reporting forms.

The student's final credit grade is made up of the grade obtained as a result of mastering two modules based on the criteria for assessing learning outcomes: the student must receive positive grades for passing the midterm test, for work in departments, and for the oral answer at the test.

#### 2. The structure and content of the practice .

#### 2.1. Scope of practice.

Scope of practice	
Total labor intensity in hours, total	432
Labor intensity in hours of the Cardiopulmonary Resuscitation Module	18
Total workload in credit units, total	12
Type of intermediate assessment	Credit with grade

#### 2.2. Type of practice.

#### Type of practice: industrial.

Industrial internship is a mandatory part of the curriculum, directly focused on students' professional and practical training. During the program, students are encouraged to master a set of required practical skills.

#### 2.3. Criteria for assessing students' knowledge

The assessment of learning outcomes is carried out in accordance with the "Regulations on the system for assessing the learning outcomes of students of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy of the Ministry of Health of the Russian Federation".

The basis for determining the level of knowledge, skills, and abilities are the assessment criteria - completeness and correctness:

- correct, precise answer;
- correct, but incomplete or inaccurate answer;
- incorrect answer;
- no answer.

When assigning marks, the classification of errors and their quality are taken into account:

- -gross errors;
- similar errors;
- minor errors:
- shortcomings.

#### Criteria for assessing the theoretical part

- "5" for the depth and completeness of mastery of the content of the educational material, in which the student can easily navigate, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present their answer competently and logically.
- "4" the student has fully mastered the educational material, is oriented in it, and expresses his answer competently, but the content and form contain some inaccuracies.
- "3" the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, and does not know how to express and justify his judgments.
- "2" the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and the secondary, makes mistakes in defining

concepts, distorts their meaning, and presents the material in a disorderly and uncertain manner.

#### Test control evaluation criteria

- "5" when testing, up to 10% of incorrect answers are allowed.
- "4" allows up to 20% of incorrect answers during testing.
- "3" allows up to 30% of incorrect answers during testing.
- "2" during testing, more than 30% of incorrect answers are allowed.

#### Criteria for assessing the practical part

- "5" the student has fully mastered the practical skills and abilities provided for in the work program of industrial practice.
- "4" the student has mastered the practical skills and abilities provided for in the work program of industrial practice, but allows for some inaccuracies.
- "3" the student has only some practical skills and abilities.
- "2" the student has only some practical skills and abilities and performs them with gross errors.

#### Interim assessment (test lesson) on a five-point scale

The midterm assessment is conducted by a practice commission consisting of a course supervisor from the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy and a practice supervisor from a medical organization.

- "5" (excellent) for the depth and completeness of the student's understanding of the course material, which the student navigates easily, for their ability to connect theoretical and practical questions, express and justify their judgments, and present their answers clearly and logically; Allows up to 10% incorrect answers during testing. The practical skills and abilities required by the internship program have been fully mastered.
- "4" good the student has fully mastered the course material, is familiar with it, and presents answers clearly, but the content and format contain some inaccuracies; during testing, the student makes up to 20% incorrect answers. The student has fully mastered the practical skills and abilities required for the course, but makes some inaccuracies.
- "3" (satisfactory) the student has mastered the knowledge and understanding of the main concepts of the course material, but presents it incompletely and inconsistently, and is unable to express and justify their judgments; during testing, the student makes up to 30% incorrect answers. The student possesses only some practical skills and abilities.
- "2" (unsatisfactory) the student has a fragmented and unsystematic knowledge of the course material, is unable to distinguish between essential and non-essential concepts, makes errors in defining concepts, distorts their meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% incorrect answers during testing. The student performs practical skills and abilities with significant errors.

## 3. Material, technical and educational support for the internship work program

### 3.1. Basic literature.

N	Name	Access mode
0.		
1.	Sumin S.A. Emergency conditions: textbook . 7th edition ,	Printed
	revised and enlarged. – M.: OOO MIA, 2010. – 960 p.	
2.	Sumin S.A. Anesthesiology and resuscitation: in 2	Printed
	volumes - M.: MIA LLC, 2010 T.1. – 928 pp., T. 2. –	
	872s.	
2	T 1 1 1 FF1 ( 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1,, // , 1 111 // 1 /
3.	Emergency medical aid [Electronic resource] / Vertkin	http://www.studmedlib.ru/book/
	A.L M.: GEOTAR-Media, 2007 368 p.: ill. – ISBN	<u>ISBN9785970405222.html</u>
	978-5-9704-0522-2 . –	
4.	Fundamentals of resuscitation [Electronic resource]:	http://www.studmedlib.ru/book/
	textbook / Sumin S.A., Okunskaya T.V M.: GEOTAR-	ISBN9785970424247.html
	Media, 2013 688 p. – ISBN 978-5-9704-2424-7.	
5.	Anesthesiology and Intensive Care: A Practical Guide	http://www.studmedlib.ru/book/
	[Electronic resource] / Edited by Corresponding Member	ISBN9785423500467.html
	of the Russian Academy of Medical Sciences, Professor	
	B.R. Gelfand . – 2nd ed., corrected and enlarged. –	
	Moscow: Litterra, 2012. – 640 p. –	

## 3.2. Further reading.

N	Name	Access mode
- '	Name	Access mode
0.		
1.	Intensive care: national guidelines: in 2 volumes/edited by	Printed
	B.R. Gelfand, A.I. Saltanov. – M.: GEOTAR-Media, 2011.	
	– Vol.2. – 784 p. – (Series "National Guidelines").	
2.	Anesthesiology: national guidelines/edited by A.A.	Printed
	Bunyatyan, V.M. Mizikov. – M.: GEOTAR-Media, 2011.	
	– 1104 p. – (Series "National Guidelines").	
3.	Emergency care for diseases of internal organs at the pre-	Printed
	hospital stage: a guide for doctors / edited by V.A. Galkin.	
	- M .: OOO "MIA", 2009 200 p.	
4.	Anesthesiology and Intensive CareTherapy:	http://www.studmedlib.ru/book/
	Practicalmanual [ Electronicresource ] / Undered . by	ISBN9785423500467.html
	Corresponding Member of the Russian Academy of	
	Medical Sciences prof . B.R. Gelfand . – 2nd ed .,	
	corrected and enlarged . – M.: Litterra , 2012. – 640 p. –	
	Modeaccess:	
5.	Modernapproaches to solutionproblemssuddencardiacdeath	http://www.studmedlib.ru/book/
	[ Electronicresource ] / V.V. Rezvan , N.V. Strizhova , A.V.	ISBN9785970425343.html
	Tarasov; undered. L. I. Dvoretsky. – M.: GEOTAR-	
	Media, 2015. – 96 p. – ISBN 978-5-9704-2534-3. –	
	Modeaccess:	

## 3. 3. Educational and methodological support for practice, prepared by the department staff

N	Name	Access mode
ο.		
1.	Video lecture "Modern approaches to CPR" - Khodus S.V.	https://educ-
		amursma.ru/course/view.php?id
		=53

### 3.4. Material and technical base for conducting internship.

Educationstudentsis being carried outonASC base usingnextequipment:

Name of premises	Equipmentpremises
Debriefing Room No. 3, Accreditation and Simulation Center (Room No. 5, 3rd floor), 675006, Blagoveshchensk, Gorky St., Bldg. 101	Teacher's desk - 1 pc., study table - 8 pcs., chair - 18 pcs., video monitoring and recording system for the simulation training process - 1 pc.
Intensive care unit, Accreditation and simulation center (room 2, 3rd floor) 675006, Blagoveshchensk, Gorky st., bldg. 101	Table - 1 pc., system for video monitoring and recording of the simulation training process - 1 pc., medical bed - 1 pc., bedside table - 1 pc., medical table - 1 pc., procedure table - 1 pc., changing table - 2 pcs., patient simulator simulating an adult man for training ECG skills - 1 pc., robot simulator for training advanced cardiopulmonary resuscitation skills - 1 pc., CPR mannequins - 3 pcs., pulse oximeter - 1 pc., airway management simulator - 1 pc., Heimlich maneuver training simulator - 1 pc., adult resuscitation simulator - 1 pc., training defibrillator - 1 pc., resuscitation phantom - 1 pc., defibrillator - monitor DKI-N-10 "Axion" - 1 pc., Defibrillator TES-7511k 1 pc., Airway Management Simulator - 1 pc., Ozhivlennaya Anna Simulator - 3 pcs., Powerheart G5 Automatic External Defibrillation Simulator - 1 pc., Cardia International Training Defibrillator - 1 pc., Ambu Bag - 3 pcs., Electrically Powered Ventilator - 1 pc., Laryngoscope with Blade Set - 1 pc., Resuscitation Phantom - 1 pc., YX300 Pulse Oximeter - 1 pc., Glucometer - 1 pc., Steel IV Infusion Stand - 3 pcs.

## 3.5. Professional databases, information and reference systems, electronic educational resources.

No. p/p	Resource name	Resource Description	Access	Resource address
Electronic library systems				
	"Student	For students and faculty of medical and		http://www
1	Consultant"	pharmaceutical universities. Provides	library, individual	±
1	Electronic	access to electronic versions of	access	studmedlib.r
	Library of the	textbooks, teaching aids, and periodicals.		<u>u/</u>

University.  The materials in the library were developed by leading Russian specialists based on modern scientific knowledge (evidence-based medicine). The information was prepared taking into account the position of the scientific and practical medical community (global, European, and Russian) in the relevant specialty. All materials have undergone mandatory independent peer review.  MedLine, the largest medical bibliographic database. It documents medical and biological articles from specialized literature and provides links to full-text articles.  A collection of Oxford Medical Press publications, bringing together over 350 titles into a single, cross-searchable resource. Publications include The OxfordHandbookoftClinicalMedicine and The OxfordTextbookoftMedicine, the electronic versions of which are constantly updated.  Reference information on physiology, cell biology, genetics, biochemistry, immunology, and pathology. (Source: Institute of Molecular Genetics, Russian Academy of Sciences.)  Free reference books, encyclopedias, books, monographs, essays, Englishlanguage literature, tests.  Information systems  A professional internet resource. Purpose: to facilitate the effective professional activities of medical personnel. Contains the charter, personnel, structure, membership rules, and information about the Russian Medical Union.  The website provides a directory of professional activities of medical personnel. Contains the charter, personnel, structure, membership rules, and information about the Russian Medical Union.  The website provides a directory of professional activities of medical personnel. Contains the charter, personnel, structure, membership rules, and information about the Russian Medical Union.  The website provides a directory of professional membership rules, and information about the Russian Medical Union.  The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents		Medical			
The materials in the library were developed by leading Russian specialists based on modern scientific knowledge (evidence-based medicine). The information was prepared taking into account the position of the scientific and practical medical community (global, European, and Russian) in the relevant specialty. All materials have undergone mandatory independent peer review.  Med.Line, the largest medical bibliographic database. It documents medical and biological articles from specialized literature and provides links to full-text articles.  A collection of Oxford Medical Press publications, bringing together over 350 titles into a single, cross-searchable resource. Publications include TheOxfordItandbookofClinicalMedicine and TheOxfordTextbookofMedicine, the electronic versions of which are constantly updated.  Reference information on physiology, cell biology, genetics, biochemistry, immunology, and pathology. (Source: Institute of Molecular Genetics, Russian Academy of Sciences.)  Free reference books, encyclopedias, books, monographs, essays, English language literature, tests.  Information systems  A professional internet resource. Purpose: to facilitate the effective professional activities of medical personnel, structure, membership rules, and information about the Russian Medical Library in the charter, personnel, structure, membership rules, and information about the Russian Medical Union.  The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.					
A	2	"Doctor's Consultant" Electronic	developed by leading Russian specialists based on modern scientific knowledge (evidence-based medicine). The information was prepared taking into account the position of the scientific and practical medical community (global, European, and Russian) in the relevant specialty. All materials have undergone		osmedlib.ru/ cgi-
A continue dictal Library  Russian Medical Association  Russian Medical Association  Web medicine.  Web medicine.  OxfordMedicine Online.  Dictal Medical Association  Russian Medical Association  Russian Medical Association  The Website provides a directory of professional medical resources, and staff of medical universities and programs. It is intended for physicians, students, and staff of medical universities and research institutions.  Publications, bringing together over 350 titles into a single, cross-searchable resource 350 titles into a single, cross-searchable resource. Publications include The OxfordTextbookofMedicine, the electronic versions of which are constantly updated.  Reference information on physiology, cell biology, genetics, biochemistry, immunology, and pathology. (Source: Institute of Molecular Genetics, Russian Academy of Sciences.)  Free reference books, encyclopedias, books, monographs, essays, English-language literature, tests.  Information systems  A professional internet resource. Purpose: to facilitate the effective professional activities of medical personnel. Contains the charter, personnel, structure, membership rules, and information about the Russian Medical Union.  The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.	3	PubMed	MedLine, the largest medical bibliographic database. It documents medical and biological articles from specialized literature and provides links	_	ncbi.nlm.nih . gov/
Human Biology Knowledge Base Knowledge Base Knowledge Base  Online Medical Library  The reference books, encyclopedias, books, monographs, essays, English-language literature, tests.  Information systems  A professional internet resource. Purpose: to facilitate the effective professional activities of medical personnel. Contains the charter, personnel, structure, membership rules, and information about the Russian Medical Union.  Web medicine.  Web medicine.  Web medicine.  Web medicine.  Cell biology, genetics, biochemistry, immunology, and pathology. (Source: Institute of Molecular Genetics, Russian Academy of Sciences.)  Free reference books, encyclopedias, books, monographs, essays, English-language literature, tests.  Information systems  A professional internet resource. Purpose: to facilitate the effective professional activities of medical personnel. Contains the charter, personnel, structure, membership rules, and information about the Russian Medical Union.  The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.  Information systems  A professional internet resource. Purpose: to facilitate the effective professional access  library, free access  http://humbi o.ru/  http://www.r	4		A collection of Oxford Medical Press publications, bringing together over 350 titles into a single, cross-searchable resource. Publications include TheOxfordHandbookofClinicalMedicine and TheOxfordTextbookofMedicine, the electronic versions of which are constantly updated.	_	oxfordmedic
Russian Medical Association   Suspension   Association   Association   Association   The website provides a directory of professional links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.   Intrary, free access   Interpretation   Interpretation   Intrary, free access   Interpretation   Interpret	5		cell biology, genetics, biochemistry, immunology, and pathology. (Source: Institute of Molecular Genetics, Russian		
Russian Medical Association  Russian Medical personnel. Contains the charter, personnel, structure, membership rules, and information about the Russian Medical Union.  The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.  A professional internet resource. Purpose: to facilitate the effective professional library, free access  http://www.r mass.ru/  http: //webmed.ir kutsk.ru/	6		books, monographs, essays, English-		
Russian Medical Association  Russian Medical personnel. Contains the charter, personnel, structure, membership rules, and information about the Russian Medical Union.  The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.  Russian Medical Bibrary, free access  http://www.r  mass.ru/  http://webmed.ir kutsk.ru/			Information systems		
Web medicine.  Web medicine.  Web medicine.  Web medicine.  Web medicine.  Web medicine.  Professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.    http://webmed.ir kutsk.ru/	7		to facilitate the effective professional activities of medical personnel. Contains the charter, personnel, structure, membership rules, and information about		•
Databases	8	Web medicine.	The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.	_	//webmed.ir
			Databases		

9	World Health Organization	The site contains news, statistics on countries that are members of the World Health Organization, fact sheets, reports, WHO publications, and much more.	library, free access	http://www. who.int/ru/
10	Ministry of Science and Higher Education of the Russian Federation.	The website of the Ministry of Science and Higher Education of the Russian Federation contains news, newsletters, reports, publications and much more.	library, free access	http://www. minobrnauki .gov.ru
11	Ministry of Education of the Russian Federation.	The website of the Ministry of Education of the Russian Federation contains news, newsletters, reports, publications, and much more.	library, free access	https://edu.g
12	Federal Portal "Russian Education"	A single point of access to educational resources. This portal provides access to textbooks on all areas of medicine and healthcare.	library, free access	http://www .edu.ru/ http://windo w.edu.ru/cat alog/?p rubr =2.2.81.1
13	Database "Russian Medicine"	Bibliographic databases  Created at the Central Scientific and Methodological Library, it covers the entire collection since 1988. The database contains bibliographic descriptions of articles from Russian journals and collections, dissertations and their abstracts, as well as Russian and foreign books, institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related fields of biology, biophysics, biochemistry, psychology, etc.	library, free access	http://www.scsml.rssi.ru//
14	eLIBRARY.RU	A Russian information portal in science, technology, medicine, and education, containing abstracts and full texts of over 13 million scientific articles and publications. The eLIBRARY.RU platform offers electronic versions of over 2,000 Russian scientific and technical journals, including over 1,000 open-access journals.	library, free access	http://elibrar y.ru/defaultx .asp
15	Portal Electronic Library of Dissertations	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	library, free access	http://diss.rs l.ru/?menu= disscatalog/

16	Medline.ru	Biomedical portal for specialists. Biomedical journal. Last updated February 7, 2021.	library, free access	http://www. medline.ru
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## 3.6. Licensed and freely distributed software used in the educational process.

	I. Commercial software products			
1	MS operating systemWindows 7 Pro	License number 48381779		
2	Operating system: MS Windows 10 Pro , MS Office	AGREEMENT R No. 142 A dated December 25, 2019		
3	MS Office	NumberLicenses: 43234783, 67810502, 67580703, 64399692, 62795141, 61350919		
4	Kaspersky Endpoint Security forbusinessExtended	Agreement No. 977/20 dated 12/24/2020		
5	1 C: PROF University	LICENSE AGREEMENT No. 2191 dated October 15, 2020		
6	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated November 11, 2020		
	II . Freely dis	stributed software		
		Freely distributed		
1	Google Chrome	<u>Distribution Terms</u> : <a href="https://play.google.com/about/play-terms/index.html">https://play.google.com/about/play-terms/index.html</a>		
2	Yandex Browser	For freedistributed LicensedagreementonusageprogramsYandex Browser <a href="https://yandex.ru/legal/browser_agreement/">https://yandex.ru/legal/browser_agreement/</a>		
		Freely distributed		
3	Dr.WebCureIt!	LicensedAgreement: <a href="https://st.drweb.com/static/new-www/files/license_CureIt_ru.">https://st.drweb.com/static/new-www/files/license_CureIt_ru.</a> <a href="mailto:pdf">pdf</a>		
		Freely distributed		
4	OpenOffice	License: <a href="http://www.gnu.org/copyleft/lesser.">http://www.gnu.org/copyleft/lesser.</a> <a href="http://www.gnu.org/copyleft/lesser.">httml</a>		
		Freely distributed		
5	LibreOffice	License: <a href="https://ru.libreoffice.org/about-us/license/">https://ru.libreoffice.org/about-us/license/</a>		

#### 3.7. Resources of the information and telecommunications network "Internet"

- 1. Ministry of Health of the Russian Federation. Standards of primary health care <a href="https://www.rosminzdrav.ru/ministry/61/22/page-979/page-983/1-standards-pervichnoy-mediko-sanitarnoy-pomoschi">https://www.rosminzdrav.ru/ministry/61/22/page-979/page-983/1-standards-pervichnoy-mediko-sanitarnoy-pomoschi</a>
- 2. Ministry of Health of the Russian Federation. Standards of specialized medical care <a href="https://www.rosminzdrav.ru/ministry/61/22/page-979/page-983/2-standarty-spetsializirovannoy-meditsinskoy-pomoschi">https://www.rosminzdrav.ru/ministry/61/22/page-979/page-983/2-standarty-spetsializirovannoy-meditsinskoy-pomoschi</a>
- 3. Ministry of Health of the Russian Federation. Procedures for providing medical care to the population of the Russian Federation <a href="https://www.rosminzdrav.ru/ministry/61/4/stranitsa-857/">https://www.rosminzdrav.ru/ministry/61/4/stranitsa-857/</a> poryadki okazaniya meditsinskoy pomoschi naseleniyu rossiyskoy federatsii
- 4. Federal Electronic Medical Library (Ministry of Health of the Russian Federation) <u>http://www.femb.ru</u>
- 5. Student consultant (Electronic library of a higher educational institution)  $\underline{\text{http}}$ : // old .  $\underline{\text{studmedlib}}$ . ru / ru / index .  $\underline{\text{html}}$
- 6. Electronic library system "Medical library "MEDLIB.RU" http://www.medlib.ru/
- 7. Amur State Medical Academy (Electronic educational resources) <a href="http://www.amursma.ru/obuchenie/biblioteki/elektronnye-obrazovatelnye-resursy/">http://www.amursma.ru/obuchenie/biblioteki/elektronnye-obrazovatelnye-resursy/</a>

#### 4. Assessment Fund

#### 4.1. Examples of test tasks for intermediate knowledge assessment.

Test control is carried out on a single information and educational portal in the Moodle system. <a href="https://educ-amursma.ru">https://educ-amursma.ru</a>, by randomly generating an individual version containing 50 questions from the question bank (100 questions).

#### **EXAMPLES OF TEST TASKS:**

Choose one correct answer

#### 1. FOR NON-INSTRUMENTAL AIRWAY PATENANCE USED

- A) tracheal intubation
- B) naso- and oropharyngeal airways
- B) bending the head and opening the mouth
- D) Safar's triple technique or throwing back the head and opening the mouth

#### 2. CONICOTOMY IS PERFORMED

- A) between the first semicircle of the trachea and the cricoid cartilage
- B) between the cricoid and thyroid cartilages
- B) between the first and second semirings of the trachea
- C) below the hyoid bone

#### 3. THE HEIMLICH MANEUVER IS USED IN

- A) aspiration of a foreign body
- B) drowning
- B) strangulation
- D) asystole

Correct answers: G, B, A.

## 4.2. List of practical skills that a student should possess after completing the internship.

- 1. Perform basic cardiopulmonary resuscitation (CPR) on an adult using an AED.
- 2. Perform basic cardiopulmonary resuscitation (CPR) on an adult without an AED.
- 3. Perform advanced cardiopulmonary resuscitation on an adult with rhythms that are not amenable to electrical defibrillation .
- 4. Perform advanced cardiopulmonary resuscitation (CPR) on an adult with rhythms requiring defibrillation .
- 5. Perform basic cardiopulmonary resuscitation (CPR) on a child under 8 years of age using an AED.
- 6. Perform basic cardiopulmonary resuscitation on a child under 8 years of age without an AED.
- 7. Perform advanced cardiopulmonary resuscitation on a child under 8 years of age with rhythms that are not amenable to electrical defibrillation.
- 8. Perform advanced cardiopulmonary resuscitation on a child under 8 years of age with rhythms requiring electrical defibrillation.

#### 4.3. List of questionsfor credit

- 1. Basic CPR Algorithm for Adults Using an AED
- 2. Basic Cardiopulmonary Resuscitation Algorithm for an Adult Without an AED
- 3. Algorithm for advanced cardiopulmonary resuscitation in adults with rhythms not amenable to electrical defibrillation .
- 4. Advanced Cardiopulmonary Resuscitation Algorithm for Adults with Rhythms Requiring Electrodefibrillation
- 5. Basic cardiopulmonary resuscitation algorithm for a child under 8 years of age using an AED
- 6. Basic cardiopulmonary resuscitation algorithm for a child under 8 years of age without an AED
- 7. Algorithm for advanced cardiopulmonary resuscitation for a child under 8 years of age with rhythms that are not amenable to electrical defibrillation .
- 8. Algorithm for advanced cardiopulmonary resuscitation for a child under 8 years of age with rhythms subject to electrical defibrillation

## MODULE 9 " FUNDAMENTALS OF PRACTICAL TRAINING OF A DISTRICT PHYSICIAN"

#### 1.2. Purpose and objectives of the practice

**The purpose** of the Module "Fundamentals of Practical Training for the Professional Activities of a District Therapist" is to deepen basic knowledge and develop skills in generalizing and applying the acquired knowledge in the practical activities of a district therapist.

#### **Module objectives:**

1. Students will master the basic principles of outpatient clinics.

- 2. To consolidate the knowledge acquired in the Department of Health, Safety and Social Hygiene, to expand understanding of the structure and functional purpose of various departments of the clinic, to master the principles of work of a district physician-therapist, general practitioner.
- 3. Under the supervision of a local general practitioner, taking into account previously acquired knowledge, learn how to diagnose and provide emergency care for the most common emergency conditions.
- 4. Under the supervision of a local physician, taking into account the clinical experience acquired in the departments, learn to carry out early diagnosis, treatment, prevention, EVI, and medical examination of the most common diseases in an outpatient setting.
- 5. Strengthen communication skills with patients, taking into account ethics and deontology depending on the identified pathology.
- 6. To deepen skills in primary and secondary prevention of the main forms of therapeutic diseases.
  - 7. To deepen skills in health education work.
- 8. To consolidate skills in preparing medical documentation, working with educational, scientific, reference, medical literature and official statistical reviews.

## 1.3. The place of practice in the structure of the main professional educational program of higher education.

In accordance with the Federal State Educational Standard of Higher Education (FSES VO) – specialty 31.05.01 General Medicine (2020). The module "Fundamentals of Practical Training for the Professional Activities of a District Therapist " of the industrial practice "General Medical Practice" is part of the core part, Block 2. The total workload is 180 hours and is conducted in the 11th semester of the 6th year. The assessment form is a credit test with an assessment in the 11th semester .

#### 1.4. Forms of practice control.

Intermediate control is used as a form of monitoring the completion of practical training, including testing, control of theoretical knowledge, and control of the acquisition of practical skills.

#### 1.5. Internship reporting forms.

Industrial practice diary, individual assignment for industrial practice, calendar schedule for completing the practice.

#### 1.6. Requirements for students

## To master the practice, knowledge, skills and abilities formed by previous disciplines are necessary:

#### Latin

Knowledge: basic medical and pharmaceutical terminology in Latin.

**Skills:** be able to apply knowledge for communication and obtaining information from medical literature, medical documentation

**Skills:** applies medical and pharmaceutical terminology in Latin in professional activities

#### **Professional foreign language**

Knowledge: basic medical and pharmaceutical terminology in a foreign language

**Skills**: be able to apply knowledge for communication and obtaining information from foreign sources

**Skills:** applies medical and pharmaceutical terminology in a foreign language in professional activities

#### **Bioethics**

**Knowledge:** moral and ethical standards, rules and principles of professional medical conduct, rights of the patient and the doctor, basic ethical documents regulating the activities of the doctor

**Skills**: build and maintain working relationships with patients and other team members.

**Skills:** applies moral and ethical standards, rules and principles of professional medical conduct, the rights of the patient and the doctor, the main ethical documents regulating the activities of the doctor in his professional activities

#### **Biochemistry**

**Knowledge**: blood composition, biochemical blood constants, hormones, buffer systems, hemoglobin oxygenation factors, erythrocyte metabolism

**Skills:** analyze the contribution of biochemical processes to the functioning of organs and the cardiovascular, respiratory, digestive, urinary, and hematopoietic systems; interpret the results of the most common laboratory diagnostic methods to identify disorders in diseases of internal organs and occupational diseases.

**Skills:** applies knowledge of blood composition, blood biochemical constants, hormones, buffer systems, hemoglobin oxygenation factors, and red blood cell metabolism in their professional activities

#### **Biology**

**Knowledge:** the laws of genetics and its importance for medicine; the patterns of heredity and variability in individual development as the basis for understanding the pathogenesis and etiology of hereditary and multifactorial diseases; the biosphere and ecology, the phenomenon of parasitism and bioecological diseases

**Skills:** analyze patterns of heredity and variability in the development of diseases of internal organs and occupational diseases.

**Skills:** applies knowledge of the laws of genetics and its importance for medicine; the patterns of heredity and variability in individual development as the basis for understanding the pathogenesis and etiology of hereditary and multifactorial diseases in their professional activities

#### **Normal** physiology

**Knowledge**: physiology of the cardiovascular, digestive, urinary, respiratory and hematopoietic systems in normal conditions

**Skills:** analyze the importance of regulation of biological processes in the human body on the functioning of the cardiovascular, digestive, urinary, respiratory, and hematopoietic systems.

**Skills:** applies knowledge of the physiology of the cardiovascular, digestive, urinary, respiratory and hematopoietic systems in their professional activities

#### Topographic anatomy, operative surgery

**Knowledge**: structure, topography of cells, tissues, organs and systems of the body in interaction with their function in normal and pathological conditions

**Skills**: analyze the functional features of the cardiovascular, respiratory, digestive, urinary, and hematopoietic systems in normal and pathological conditions.

**Skills:** applies knowledge about the structure, topography of cells, tissues, organs and systems of the body in interaction with their function in norm and pathology in their

#### professional activities

#### Pathophysiology, clinical pathophysiology

**Knowledge:** morphological changes in body tissues in pathologies of the cardiovascular, respiratory, digestive, urinary and blood systems

**Skills:** determine the contribution of pathophysiological processes to the development of diseases of internal organs.

**Skills:** applies knowledge of morphological changes in body tissues in pathologies of the cardiovascular, respiratory, digestive , urinary and blood systems in their professional activities

#### Pharmacology

Knowledge: pharmacokinetics, pharmacodynamics, side effects of various drugs on the body

Skills: write prescriptions for prescribed medications, know the indications and contraindications for their use.

**Skills:** applies knowledge of pharmacokinetics, pharmacodynamics , and side effects of various drugs on the body in his/her professional activities

#### **Propaedeutics of internal diseases**

**Knowledge:** collection of complaints, anamnesis, objective methods of examination of patients (palpation, percussion, auscultation

**Skills**: conduct anamnestic and physical examination, identify the main syndromes and symptoms of diseases of internal organs.

**Skills:** applies knowledge of collecting complaints, anamnesis, objective methods of examining patients (palpation, percussion, auscultation**in my professional activities** 

#### Public health and healthcare, health economics

**Knowledge:** Fundamentals of the Russian Federation legislation on public health protection, key regulatory and technical documents; population health indicators, factors shaping human health (environmental, professional, natural and climatic, endemic, social, epidemiological, psycho-emotional, professional, genetic)

**Skills:** plan, analyze, and evaluate the quality of medical care, the health status of the population, and the impact of environmental and occupational factors; calculate medical statistics.

**Skills:** applies knowledge of the fundamentals of the Russian Federation legislation on public health protection, the main regulatory and technical documents; population health indicators, factors that shape human health (environmental, professional, natural and climatic, endemic, social, epidemiological, psycho-emotional, professional, genetic) in their professional activities

#### Pathological anatomy, clinical pathological anatomy

**Knowledge:** etiology, pathogenesis, morphogenesis, pathomorphosis of disease, principles of disease classification; structural and functional bases of diseases and pathological processes; causes, mechanisms of development and outcomes of typical pathological processes.

**Skills:** visually assess and record changes in the organs and tissues of a corpse, substantiate the nature of the pathological process and its clinical manifestations; provide an opinion on the cause of death and formulate a pathological diagnosis;

**Skills:** applies knowledge of the etiology, pathogenesis, morphogenesis, pathomorphosis of disease, principles of disease classification; structural and functional bases of diseases and pathological processes; causes, mechanisms of development and outcomes of typical pathological processes in their professional activities

#### **Emergency conditions in therapy**

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of emergency conditions in therapy).

**Skills:** diagnose an urgent condition under the main therapeutic conditions, formulate and justify a clinical diagnosis, conduct a differential diagnosis and provide emergency care.

**Skills:** applies knowledge of the etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of emergency conditions in their professional activities

### **Faculty therapy**

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of major diseases of the respiratory, cardiovascular, digestive, urinary and hematopoietic systems.

**Skills:** formulate and justify a clinical diagnosis, prescribe an examination and treatment plan for the main therapeutic diseases, diagnose an urgent condition and provide emergency care.

**Skills:** applies knowledge of the etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of major diseases of the respiratory, cardiovascular, digestive, urinary and hematopoietic systems in their professional activities

#### Hospital therapy

**Knowledge:** etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of major diseases of the respiratory, cardiovascular, digestive, urinary and hematopoietic systems.

**Skills:** formulate and justify a clinical diagnosis, prescribe a plan of examination and treatment for the main therapeutic diseases.

**Skills:** applies knowledge of the etiology, pathogenesis, classification, clinical manifestations, complications, diagnosis, treatment and prevention of major diseases of the respiratory, cardiovascular, digestive, urinary and hematopoietic systems in their professional activities

#### 1.7. Interdisciplinary connections of practice

Knowledge and skills acquired during the internship "Fundamentals of practical training for the professional activities of a district therapist ." Necessary for studying subsequent disciplines and practices

Item No.	Name of subsequent disciplines	Module "Fundamentals of practical
		training for the professional activities
		of a district therapist."
1	Clinical pharmacology	+
2	Hospital therapy	+
3	Hospital surgery	+
4	Infectious diseases, epidemiology	+
5	Public health and healthcare organization, healthcare economics	+
6	Anesthesiology, resuscitation, intensive care	+
7	Organization of medical and preventive care for the adult population in a polyclinic setting	+

### 1.8. Requirements for the results of the internship

Mastering the practice of "Fundamentals of practical training for the professional activity of a district therapist" is aimed at the formation and improvement of the following universal ( UC ), general cultural (GPC) and professional competencies (PC): UC -3, 6; GPC -2,4,5,7,8,11; PC-1-14

No. p/p	Code and name of competence	Code and name of the competency achievement indicator	As a result of studying the academic discipline "Outpatient				
			Therapy", the student must:				
			Know	Be able to	To own		
Un	Universal competencies						
	UC -3. Able to organize and manage teamwork, developing a team strategy to achieve the set goal.	AI UC-3.1. Works in a team, is tolerant but perceives social, ethnic, religious and cultural differences.  AI UC 3.2 . Plans and adjusts team work based on the collaboration strategy; assigns tasks and delegates authority to team members.  AI UC-3.3 . Selects constructive ways to resolve conflicts and contradictions in business communication.  AI UC-3.4 . Organizes discussions on a given topic and discusses the team's work results with the involvement of opponents and developed ideas.	Key legislative acts, methods for resolving conflicts and contradictions in business communication	Work within the framework of set goals and objectives, achieve their implementation, resolve conflicts and contradictions in business communication	The basic principles of professional work qualities, the ability to carry out organizational but – managed ecological activities, resolve contradictions in business communication		
	UC -6. Capable of identifying and to implement priorities of one's own activities and ways of improving them based on self-assessment and lifelong learning	AI UC -6.1. Assesses personal, situational, and time resources and uses them optimally to complete assigned tasks.  AI UC-6.2 . Plans his/her activities within the framework of professional tasks.  AI UC-6.3 . Conducts critical self-analysis of the results of one's own activities.  AI UC -6.4 . Identifies priorities for professional growth and ways to improve one's own performance based on self-assessment according to selected criteria.	Priorities for professional growth and ways to improve one's own performance based on self-assessment	Assess your capabilities nost and their limits for success completion of assigned tasks, systematize theoretical knowledge to solve practical problems	The ability to provide a detailed plan of one's professional activities		

	General professional competencies					
		AI GPC-2.1 . Uses preventive medicine methods aimed	Methods and	Conduct discussions	The ability to	
		at improving public health.	measures for	about a healthy	develop a work	
		AI GPC-2.2. Promotes a healthy lifestyle aimed at	prevention	lifestyle with	plan to promote a	
		improving sanitary culture and disease prevention among	tike, formi	interested groups,	healthy lifestyle	
		patients (the population).	vaniyazdoro	monitor the	and sanitary and	
	GPC-2 . Capable	AI GPC-2.3. Develops a plan to promote healthy	lifestyle and	effectiveness of	hygienic	
	of conducting and	lifestyles for various groups (medical staff and patients,	sanitation	preventive measures,	to educate the	
	monitoring the	various professional and social groups), taking into	Czech education	and the formation of	population	
	effectiveness of	account the sanitary and epidemiological situation.	of the population	healthy lifestyles.		
	measures to prevent	AI GPC-2.4 ranks public health risk factors and selects		lifestyle and sanitary		
	and promote	and justifies optimal measures to minimize and eliminate		and hygienic		
	healthy lifestyle and	health risks.		to whom the		
		AI GPC-2.5 . Assesses population health characteristics		education of the		
	sanitation	and environmental factors that impact the body, and		population		
	educational	understands the biophysical mechanisms of such impacts.				
	education of the	AI GPC-2.6. Assesses the need for drug and non-drug				
	population	prophylaxis, natural healing factors, and other methods				
	r · r · · · · ·	aimed at preventing the occurrence of diseases and				
		eliminating risk factors for their development.				
		AI GPC-2.7 . Examines the effects of drugs and				
		biologically active substances, their combinations, taking				
		into account the morphofunctional characteristics and				
	CDC 4 C 11	physiological state of the human body.	F .' 1 1' 1	T ('C (1 1 ' C	TT1 1 '1' 4	
	<b>GPC- 4.</b> Capable	AI GPC-4.1. Utilizes modern medical technologies,	Essential medical	Justify the choice of	The ability to	
	of using medical	specialized equipment and medical devices, disinfectants,	products,	essential medical	conduct a patient examination to	
	devices as provided for by the	and medications, including immunobiological and other substances and their combinations, to solve professional	specialized equipment,	products, specialized equipment,	establish a	
	procedure for	problems using evidence-based medicine.	technologies, and	technology, and	diagnosis and	
	providing medical	AI GPC-4.2. Understands the indications and	medications	medications	interpretation	
	care, as well as	contraindications for instrumental, functional, and	required by the	provided for by the	results of the most	
	· ·	, , , , , , , , , , , , , , , , , , ,	procedure for	procedure for	common methods	
	conducting patient	laboratory examination methods, potential complications	procedure for	procedure for	common methods	

examinations to	during examinations, emergency care, and their	providing medical	providing medical	of instrumental,
establish a	prevention.	care	care,	laboratory
diagnosis	AI GPC-4.3. Interprets the results of the most common			rnoy and funktio
	instrumental, laboratory, and functional diagnostic			diagnostics,
	methods, including thermometry, to identify pathological			thermometry to
	processes.			identify
	AI GPC-4.4. Proficient in methods of general clinical			pathological
	examination of patients of various ages.			processes
	AI GPC-4.5. Formulates a preliminary diagnosis and a			
	clinical diagnosis according to the ICD.			
	AI GPC -5.1. Understands the functional systems of the	Morphofunctional	Assess	The ability to
	human body, their regulation, and self-regulation in	, physiological	morphofunctional,	assess the physical
	interaction with the external environment under normal	states and	physiological states	development of the
	and pathological conditions.	pathological	and pathological	body, data from
	AI GPC-5.2 . Knowledge of etiology, pathogenesis,	processes in the	processes in the	medical
GPC-5 . Capable	morphogenesis, pathomorphism of disease development,	human body for	human body to solve	examinations of
of assessing	and basic concepts of nosology.	solving	professional	various contingents
morphofunctional,	AI GPC-5.3. Understands the morphofunctional and	professional	problems	and periodic
physiological	physiological state indicators of a healthy person and can	problems		medical
states, and	measure/determine them.			examinations to
pathological	AI GPC-5.4. Uses indicators of morphofunctional,			solve a professional
processes in the	physiological state, and pathological processes to examine			problem
human body to	the human body to establish a diagnosis, prescribe			
solve professional	treatment, and monitor its effectiveness and safety.			
problems.	AI GPC-5.5 . Analyzes macroscopic and microscopic			
	changes in normal and pathologically altered tissues and			
	organs.			
	AI GPC-5.6. Interprets biopsy and surgical specimen			
	results to solve professional problems and formulate a			
	diagnosis in accordance with the ICD.			
	T	1	Τ	T
GPC-7. Capable of	AI GPC-7.1 . Selects medications based on their	Mechanisms of	Prescribe treatment	Ability

prescribing	pharmacokinetic and pharmacodynamic characteristics	action of drugs	to patients with	selection of a drug
treatment and	for the treatment of patients with various nosological	based on their	various nosological	based on a
monitoring its	entities in outpatient and inpatient settings.	pharmacokinetic	forms in outpatient	combination of
effectiveness and	AI GPC-7.2 . Selects the optimal minimum of the most	and	settings and monitor	the nature of its
safety.	effective medications, taking into account convenient	pharmacodynami	its effectiveness and	pharmacokinetics
·	methods of administration and the patient's financial	c characteristics	safety	genetic and
	ability to purchase medications.	for the treatment		pharmacodynamic
	AI GPC-7.3. Explains the primary and secondary effects	of patients with		characteristics for
	of medications, the effects of their combined use, and	various		the treatment of
	interactions with food, taking into account	nosological forms		patients with
	morphofunctional characteristics, physiological	in outpatient		various nosological
	conditions, and pathological processes in the human	settings.		forms in outpatient
	body.			settings
	AI GPC-7.4. Prescribes medications for the treatment of			
	diseases and correction of pathological conditions, based			
	on the pharmacokinetics and pharmacodynamics of the			
	drugs.			
	AI GPC-7.5 takes into account morphofunctional			
	characteristics, physiological states, and pathological			
	processes in the human body when selecting over-the- counter medications and other pharmacy products.			
	AI GPC-7.6 . Analyzes the results of potential drug			
	interactions when various medications are used in			
	combination.			
	AI GPC-7.7. Evaluates the efficacy and safety of drug			
	therapy using a combination of clinical, laboratory,			
	instrumental, and other diagnostic methods.			
<b>GPC-8.</b> Capable of	AI GPC -8.1. Assesses a person's functional reserves and	Basic principles	Carry out activities	Ability
implementing and	adaptive abilities, reduced by adverse environmental	of monitoring the	to identify risk	monitor the
monitoring the	factors and activities or as a result of illness.	effectiveness of	groups for the	effectiveness of the
effectiveness	AI GPC-8.2. Identifies risk groups for the purpose of	medical	purpose of	patient's medical
the necessity of	improving health and determining rehabilitation potential	rehabilitation of a	improving health	rehabilitation,

medical	for subsequent restorative treatment and rehabilitation of	patient, including	and determining the	including the
rehabilitation of the	patients.	when	rehabilitation	implementation of
patient, including	AI GPC-8.3. Develops and organizes a plan of medical	implementing	potential for	individual
in the	rehabilitation for patients, including non-drug treatment	tsiindividual	subsequent	rehabilitation and
implementation of	methods (natural healing factors, physical and	rehabilitation and	restorative treatment	habilitation
individual	reflexology, exercise therapy).	habilitation	and rehabilitation of	programs for
rehabilitation and	AI GPC-8.4. Interprets the results of clinical, laboratory,	programs for	patients	people with
habilitation	instrumental, and neuropsychological diagnostic methods	people with		disabilities, and
programs for	to monitor the effectiveness of medical rehabilitation	disabilities, to		assess the patient's
people with	programs and assess the patient's ability to perform work	assess the		ability to perform
disabilities, to	activities.	patient's ability to		work
assess the patient's		perform work		
ability to carry out		activities		
work activities				
	AI GPC 11.1 . Applies modern methods for collecting	Scientific,	Prepare and apply	Ability
	and processing information, conducts statistical analysis	research and	scientific, scientific-	conduct scientific
	of obtained data in the professional field, and interprets	production,	industrial, design,	and practical
<b>GPC- 11.</b> Able to	the results to solve professional problems.	design,	organizational-	research, analyze
prepare and apply	AI GPC 11.2 . Identifies and analyzes problematic	organizational,	managerial and	information using
scientific, research	situations, searches for and selects scientific, regulatory,	managerial and	regulatory	the historical
and production,	and organizational documentation in accordance with	regulatory	documentation in the	method and prepare
design,	established objectives.	documentation in	healthcare system,	publications based
organizational and	AI GPC 11.3. Interprets and applies data from physical,	the healthcare	implement	on the research
managerial, and	chemical, mathematical, and other natural science	system	search and selection	results
regulatory	concepts and methods to solve professional problems.		of scientific,	
documentation in	AI GPC-11.4. Conducts scientific and practical research,		regulatory, legal and	
the healthcare	analyzes information using the historical method, and		organizational	
system.	prepares publications based on research results.		documentation in	
	AI GPC-11.5. Analyzes and compiles medical records		accordance with the	
	and calculates qualitative and quantitative indicators used		specified objectives	
	in professional activities.			
Professional competence	eies			

	PC-1 Capable of	AI PC - 1.1. Identifies clinical signs of conditions	Clinical signs of	Identify and provide	Skills in providing
	providing medical	requiring emergency medical care.	conditions	emergency medical	medical care in
	assistance in urgent	AI PC -1.2. Provides emergency medical care to patients	requiring	care to patients with	emergency and
	and emergency	with sudden acute illnesses, conditions, and exacerbations		sudden acute	urgent situations to
	situations	of chronic diseases without obvious signs of a threat to	medical care	illnesses, conditions,	patients with
		the patient's life.		and exacerbations of	sudden acute
		AI PC -1.3. Identifies conditions requiring emergency		chronic diseases	illnesses,
		medical care.		without obvious	conditions, and
		AI PC - 1.4. Provides emergency medical care to patients		signs of a threat to	exacerbation of
		with life-threatening conditions.		the patient's life.	chronic diseases
		AI PC -1.5. Detects signs of sudden cessation of blood			without obvious
		circulation and breathing.			signs of a threat to
		AI PC - 1. 6. Performs basic cardiopulmonary			the patient's life
		resuscitation in combination with electrical impulse			
		therapy (defibrillation) in the event of clinical death of the			
		patient (in case of sudden cessation of blood circulation			
		and/or breathing).			
	PC-2. Capable of	AI PC -2 .1. Establishes contact with the patient.	Algorithms for	Collect and analyze	Skills in collecting
	collecting and	AI PC -2 .2.Collects complaints, specifies them,	collecting	information about	complaints, life
	analyzing	highlighting the main and secondary ones.	complaints, life	the onset of the	history and medical
	complaints, life	AI PC -2.3 . Collects and analyzes information about	history and medical	disease, the	history of the patient
	history and medical	the onset of the disease, the presence of risk factors, the	history of the	presence of risk	in order to establish
	history of the	dynamics of symptom development, and the course of	patient for the	factors, the	a diagnosis
	patient in order to	the disease.	purpose of	dynamics of the	
	establish a	AI PC -2.4. Analyzes the timing of the first and	establishing a	development of	
	diagnosis	repeated requests for medical care, the volume of	diagnosis	symptoms and the	
		therapy administered, and its effectiveness.		course of the	
		AI PC -2.5. Collects and evaluates information about		disease	
		the medical history, including data on past illnesses,			
		injuries and surgical interventions, hereditary,			
-	DC 2	professional	M-411-1	A1 41	C1-!11 - C 1
	PC-3.	AI PC-3.1.Conducts a complete physical examination	Methodology for	Analyze the	Skills for early

Able to conduct a physical examination of a patient and analyze the results of additional examination	of the patient (inspection, palpation, percussion, auscultation) and interprets the results  AI PC-3.2. Justifies the necessity, scope, sequence of diagnostic measures (laboratory, instrumental) and referral of the patient to specialist doctors for consultations  AI PC-3.3. Analyzes the patient examination results	conducting a complete physical examination of the patient and international statistics -10 classification of	obtained results of the patient's examination	diagnosis of diseases of internal organs and
methods in order to	and, if necessary, justifies and plans the scope of	diseases and related		
establish a	additional research.	health problems		
diagnosis	AI PC-3.4. Interprets and analyzes the results of collecting information about the patient's disease, data obtained during laboratory and instrumental examinations and during consultations with specialist doctors, and, if necessary, justifies and plans the scope of additional research.  AI PC-3.5.Provides early diagnosis of internal organ diseases. Diagnosis is based on the current International Statistical Classification of Diseases and Related Health Problems (ICD).  AI PC-3.6.Conducts differential diagnostics of internal organ diseases from other diseases			
PC-4 .	AI PC-4.1.Determines medical indications for the	Indications for	Determine medical	Skills in using
Capable of	provision of emergency, including specialized	hospitalization,	indications for the	medical devices in
determining	emergency, medical care	indications for	provision of	accordance with
indications for	AI PC-4.2.Refer the patient for specialized medical care	emergency,	emergency,	current procedures
hospitalization,	in an inpatient setting or in a day hospital setting if there	including	including	for providing
indications for	are medical indications in accordance with the current	specialized	emergency	medical care, clinical
emergency,	procedures for providing medical care, clinical	emergency,	specialized,	guidelines (treatment
including	guidelines (treatment protocols) on issues of providing	medical care	medical care and	protocols) on issues
specialized	medical care, taking into account the standards of medical care		refer the patient for	of providing medical
emergency, medical care	AI PC-4.3.Uses medical devices in accordance with		specialized medical care in an inpatient	care, and care taking into account medical
medicai care	AT FU-4.5. Uses medical devices in accordance with		care in an inpatient	into account medical

	current procedures for the provision of medical care, clinical guidelines (treatment protocols) on issues of providing medical care, care taking into account the		setting or in a day hospital setting	care standards
	standards of medical care			
PC-5. Able to prescribe treatment to patients	AI PC -5. 1. Draws up a treatment plan for the patient taking into account the diagnosis, age of the patient, clinical picture of the disease, presence of complications, concomitant pathology, in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on issues of providing medical care, taking into account the standards of medical care.  AI PC -5. 2. Prescribes medications, medical devices, and therapeutic nutrition taking into account the diagnosis, age, and clinical picture of the disease in accordance with current procedures for the provision of medical care, clinical guidelines, and standards of medical care.  AI PC -5. 3. Prescribes non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with current procedures for the provision of medical care, clinical guidelines, and standards of medical care, clinical guidelines, and standards of medical care.  AI PC -5.4 . Provides palliative care in collaboration with specialist doctors and other healthcare workers.  AI PC -5. 5. Organizes personalized treatment for patients, including pregnant women, elderly and senile patients.	Clinical guidelines (treatment protocols) for the provision of medical care, taking into account the standards of medical care	Prepares a treatment plan for the patient taking into account the diagnosis, age of the patient, clinical picture of the disease, presence of complications, concomitant pathology, in accordance with current procedures for the provision of medical care, clinical recommendations (treatment protocols) on issues of providing medical care, taking into account the standards of medical care	Skills in providing palliative care in collaboration with specialist doctors and other healthcare workers

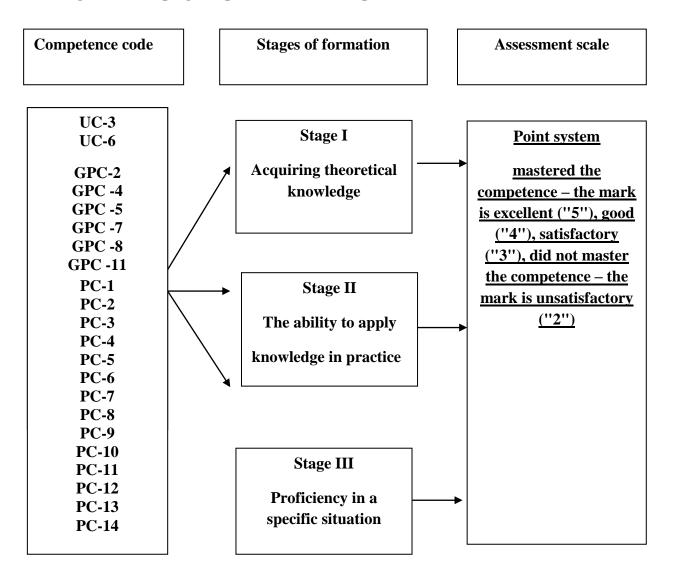
PC-6. Capable of monitoring the effectiveness and safety of the therapy being administered  PC-7. Able to guide a patient with persistent impairment of body functions caused by a disease we, last	AI PC-6.1. Evaluates the efficacy and safety of drugs, medical devices, nutritional supplements, and other treatment methods.  AI PC-6.2. Takes into account the pharmacodynamics and pharmacokinetics of key drug groups, prevents the development of adverse drug reactions, and corrects them if they occur.  AI PC-7.1. Identifies signs of temporary disability and signs of persistent impairment of body functions caused by diseases, consequences of injuries, or defects.  AI PC-7.2. Participates in the examination of temporary disability and works as part of the medical commission conducting the examination of temporary disability.  AI PC-7.3. Prepares the necessary medical	Pharmacodynamics and pharmacokinetics of the main groups of drugs  Signs of temporary disability and signs of persistent impairment of body functions caused by diseases, consequences of injuries or	Evaluate the effectiveness efficacy and safety of drug use drugs, medical devices, therapeutic nutrition and other treatment methods  Conduct an examination of temporary disability and prepare the necessary medical documentation for the implementation	Skills in monitoring the effectiveness and safety of the therapy  Skills in conducting an examination of temporary disability and preparing the necessary medical documentation for the implementation of medical and social
PC-7. Able to guide a patient with	AI PC-7.1. Identifies signs of temporary disability and signs of persistent impairment of body functions caused	disability and signs of persistent	treatment methods Conduct an examination of temporary	an examination of temporary disability
impairment of body functions caused by	<b>AI PC-7.2.</b> Participates in the examination of temporary disability and works as part of the medical commission	functions caused by diseases,	prepare the necessary medical	necessary medical documentation for
PC-8. Capable of implementing and monitoring the effectiveness of individual patient rehabilitation programs	AI PC-8. 1. Determines medical indications for medical rehabilitation or habilitation of disabled persons, in accordance with current procedures for the provision of medical care, clinical guidelines for the provision of medical care, taking into account the standards of medical care.  AI PC-8.2. Performs medical rehabilitation activities for the patient, in accordance with current procedures for the provision of medical care, clinical guidelines	Medical indications for carrying out medical rehabilitation or habilitation measures for disabled people, in accordance with the current	Determine medical indications for carrying out medical rehabilitation or habilitation measures for disabled people, in accordance with	Skills implementation and monitoring of the effectiveness of individual patient rehabilitation programs

	(treatment protocols) on issues of providing medical care, taking into account the standards of medical care.  AI PC-8.3. Determines medical specialists to carry out rehabilitation measures for the patient, taking into account the diagnosis and in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) on issues of providing medical care, taking into account the standards of medical care.  AI PC 8.4. Monitors and evaluates the effectiveness and safety	procedures for the provision of medical care, clinical guidelines for the provision of medical care, taking into account the standards of medical care	current procedures for the provision of medical care, clinical guidelines for the provision of medical care, taking into account the standards of medical care	
PC-9.	rehabilitation measures, taking into account the diagnosis and in accordance with current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care  AI PC 9.1. Organizes and conducts medical	The main current	Conduct medical	Skills for conducting
A method for conducting preventive medical examinations, clinical examinations, and implementing clinical observation patientschronic diseases	examinations taking into account age, health status, and profession in accordance with current regulatory legal acts and other documents.  AI PC 9.2. Conducts medical examination of the adult population for the purpose of early identification of chronic non-communicable diseases and the main risk factors for their development  AI PC 9.3. Conducts outpatient monitoring of patients with identified chronic non-communicable diseases  AI PC 9.4. Determines medical indications for referral to specialist doctors and additional research methods based on the results of a medical examination.	regulatory legal acts and other documents	examinations taking into account age, health status, profession in accordance with current regulatory legal acts and other documents	Skills for conducting dispensary observation of patients with identified chronic non-communicable diseases
PC -10. Capable of	<b>AI PC 10.1.</b> Prescribes preventive measures to patients taking into account risk factors for the prevention and	Formation programs	Conduct and monitor the	Conducting skills activities for
conducting and	early detection of diseases, including socially significant	promotion,	effectiveness of	preventive work and

monitoring the	diseases.	including programs	preventive	the formation of a
effectiveness of	AI PC 10.2. Develops and implements healthy lifestyle	to reduce	measures and the	healthy lifestyle
preventive	programs, including programs to reduce alcohol and	consumption	promotion of a	
measures and	tobacco consumption, and prevent and combat the non-	alcohol and	healthy lifestyle	
promoting a	medicinal use of narcotic drugs and psychotropic	tobacco use		
healthy lifestyle	substances.	ka, prevention and		
	AI PC 10.3. Conducts sanitary and anti-epidemic	control of non-		
	measures in the event of an outbreak of infection.	medicinal		
		substances		
		non-toxic		
		consumption		
		I eat drugs		
		drugs and		
		psychotropics		
		substances		
PC-11.	AI PC 11.1. Organizes medical care in medical	The main	Ensure internal	Skills in drawing up
M a n tapplication	organizations providing outpatient medical care,	principles of	control of the	a work plan and
of the basic	including at home when a medical worker is called.	organizing the	quality and safety	report on the work of
principles of	AI PC 11.2.Monitors the performance of job	management of the	of medical	a district physician
organizing the	responsibilities by the district nurse and other available	attached population	activities within the	in accordance with
management of the	medical workers	in the health care	scope of job	established
attached population	AI PC 11.3. Uses methods and means of visual	sphere, in medical	responsibilities	requirements
in the health care	presentation of activity results	and structural		
sector, in medical	AI PC 11.4. Prepares a work plan and a report on the	organizations		
and structural	work of the district physician in accordance with	divisions x		
organizations	established requirements			
divisions x	AI PC 11.5. Ensures internal quality control and safety			
	of medical activities within the scope of job			
	responsibilities.			
	AI PC 11.6. Uses information systems and information			
DC 12	and telecommunications in professional activities	The main and	Ell ant madical	Skills
PC-12.	AI PC -12.1 .Completes medical documentation,	The main one	Fill out medical	SKIIIS

Ready to maintain medical records, including in	including electronically  AI PC -12.2 .Works with personal data of patients and information constituting a medical secret	medical documentation and how to fill it out	documentation, including in electronic form	working with personal data of patients and
electronic form	<b>AI12.3.</b> Prepares documents for referring patients for hospitalization, consultation, spa treatment, and medical and social assessment.			information constituting a medical secret
PC-13.	AI PC -13.1 .Conducts an analysis of medical and	Statistical	Conduct medical	Skills in conducting
Ready to	statistical indicators of morbidity, disability and	reporting, including	and statistical	statistical reporting
participate in	mortality to assess the health of the assigned population	federal and	analysis	
assessing the	AI PC 13. 2. Analyzes official statistical reporting data,	industry statistical	indicators of	
quality of medical	including federal and industry statistical monitoring	monitoring forms	morbidity,	
care provided to	forms		disability	
patients using			lead and death	
medical statistics			for assessing the	
some indicators			health of the	
			attached	
2011	1770 44 4 7 11 1 10 10	<b>.</b>	population	01.11
PC-14.	AI PC -14. 1. Participates in scientific research	Evidence-based	Analyze medical	Skills in introducing
Capable of	AI PC -14. 2. Analyzes medical information based on	medical	information based	new methods and
participating in	evidence-based medicine	information	on evidence-based	techniques into
research activities	AI PC -14. 3. Introduces new methods and techniques		medicine	practical healthcare
	into practical healthcare aimed at protecting the health			aimed at protecting
	of the adult population.			the health of the
				adult population

# 1.9. Stages of developing competencies and descriptions of assessment scales



# 2. Structure and content of practice

## 2. 1. Scope of practice

Scope of practice	
Total labor intensity in hours, total	432
Labor intensity in hours of the Module "Fundamentals of practical	180
training for the professional activities of a district therapist "	
Total workload in credit units, total	12
Type of intermediate assessment	Credit with grade

### 2.2. Type of practice, method and form of its implementation

# Type of practice: industrial

Industrial internship is a mandatory part of the curriculum, directly focused on students' professional and practical training. During the program, students are encouraged to master a set of required practical skills.

### 2.3. Criteria for assessing students' knowledge.

The assessment of learning outcomes is carried out in accordance with the "Regulations on the system for assessing the learning outcomes of students of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy of the Ministry of Health of the Russian Federation".

The basis for determining the level of knowledge, skills, and abilities are the assessment criteria

- completeness and correctness:
- correct, precise answer;
- correct, but incomplete or inaccurate answer;
- incorrect answer;
- no answer.

When assigning marks, the classification of errors and their quality are taken into account:

- -gross errors;
- similar errors;
- minor errors:
- shortcomings.

### Criteria for assessing the theoretical part

- "5" for the depth and completeness of mastery of the content of the educational material, in which the student can easily navigate, for the ability to connect theoretical questions with practical ones, express and justify their judgments, and present their answer competently and logically.
- "4" the student has fully mastered the educational material, is oriented in it, and expresses his answer competently, but the content and form contain some inaccuracies.
- "3" the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, and does not know how to express and justify his judgments.
- "2" the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and the secondary, makes mistakes in defining concepts, distorts their meaning, and presents the material in a disorderly and uncertain manner.

#### Test control evaluation criteria

- "5" when testing, up to 10% of incorrect answers are allowed.
- "4" allows up to 20% of incorrect answers during testing.
- "3" allows up to 30% of incorrect answers during testing.
- "2" during testing, more than 30% of incorrect answers are allowed.

# Criteria for assessing the practical part

- "5" the student has fully mastered the practical skills and abilities provided for in the work program of industrial practice.
- "4" the student has mastered the practical skills and abilities provided for in the work program of industrial practice, but allows for some inaccuracies.
- "3" the student has only some practical skills and abilities.
- "2" the student has only some practical skills and abilities and performs them with gross errors.

### Interim assessment (test lesson) on a five-point scale

The midterm assessment is conducted by a practice commission consisting of a course supervisor from the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy and a practice supervisor from a medical organization.

- "5" (excellent) for the depth and completeness of the student's understanding of the course material, which the student navigates easily, for their ability to connect theoretical and practical questions, express and justify their judgments, and present their answers clearly and logically; Allows up to 10% incorrect answers during testing. The practical skills and abilities required by the internship program have been fully mastered.
- "4" good the student has fully mastered the course material, is familiar with it, and presents answers clearly, but the content and format contain some inaccuracies; during testing, the student makes up to 20% incorrect answers. The student has fully mastered the practical skills and abilities required for the course, but makes some inaccuracies.
- "3" (satisfactory) the student has mastered the knowledge and understanding of the main concepts of the course material, but presents it incompletely and inconsistently, and is unable to express and justify their judgments; during testing, the student makes up to 30% incorrect answers. The student possesses only some practical skills and abilities.
- "2" (unsatisfactory) the student has a fragmented and unsystematic knowledge of the course material, is unable to distinguish between essential and non-essential concepts, makes errors in defining concepts, distorts their meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% incorrect answers during testing. The student performs practical skills and abilities with significant errors.

# 3. Educational, methodological, logistical and informational support of the discipline:

### 3.1. Primary Literature

	Name of textbooks, teaching aids,	Links
	methodological manuals, developments and	
	recommendations	
1	1. Storozhakov, G. I. Polyclinic therapy: textbook / Storozhakov G. I. ,Chukaeva I. I. , Aleksandrov A. A 2nd ed. , processor . and additional Moscow: GEOTAR-Media, 2013 640 p ISBN 978-5-9704-2501-5 Text: electronic (date of receipt: 06.05.2021) Access mode: by subscription.	http://www.studmedlib.ru/en/book/ISBN978 5970425015.html
2	2. Davydkin, I. L. Outpatient therapy: textbook / edited by Davydkin I. L., Shchukin Yu. V 2nd ed., revised . and additional Moscow: GEOTAR-Media, 2020 840 p ISBN 978-5-9704-5545-6 Text: electronic (date accessed: 05.05.2021) Access mode: by subscription.	http://www.studmedlib.ru/book/ISBN978597 0455456.html

### 3.2. Further reading

1	Outpatient therapy. Standards of medical care. Quality assessment criteria. Pharmacological reference book / compiled by A. I. Murtazin - Moscow: GEOTAR-Media, 2019 624 p ISBN 978-5-9704-5087-1 Text: electronic (date accessed: 05.05.2021) Access mode: by subscription.	http://www.studmedlib.ru/book/ISBN978597 0450871.html
2	Kuznetsova, O. Yu. Palliative care in outpatient settings: a guide for doctors / edited by O. Yu. Kuznetsova Moscow: GEOTAR-Media, 2021 336 p ISBN 978-5-9704-5948-5 Text: electronic (date accessed: 05.05.2021) Access mode: by subscription.	http://www.studmedlib.ru/book/ISBN978597 0459485.html

# 3. 3. Educational and methodological support for the discipline, prepared by the department staff:

#### **Textbooks:**

- 1. Pavlenko V.I., Goncharova O.M. Key aspects of organizing outpatient care for the adult population. Study guide Blagoveshchensk, 2018., 158 p.
- 2. Pavlenko V.I., Goncharova O.M., Soluyanova I.P. Acid-dependent and HELICOBACTER PYLORI- associated diseases in the practice of a local general practitioner. Study guide Blagoveshchensk, 2020., 166 p.

### Educational videos ( DVDs ) prepared by the department:

- 1) Video tutorial "Collecting complaints and anamnesis during an outpatient appointment"
- 2) Video tutorial: "Errors in collecting complaints and anamnesis during an outpatient appointment"
- 3) Educational video tutorial "Medical Examination"

## 3.4. Equipment used for the practice

Item No.	Name of equipped classrooms, facilities for practical classes (quantity, pcs.)
1	Educational and methodological office
	Basic equipment: table-4 and chairs-9; bookcase.
2	Department's classroom
	Basic equipment:
	Board-1; tables-9 and chairs-23; cabinet -1, visual aids-21; stands-3.
3	Basic equipment:
	tables-1 and chairs -3; bookcase-1.
4	Basic equipment: computer-1,
	tables - 2 and chairs - 3, bookcase - 2, visual aids - 23.
5	Department's classroom
	Basic equipment: tables-2 and chairs-10; couch-1.

6	The department's classroom.	
	Basic equipment:	
	tables - 7 and chairs - 22; visual aids - 14; stands - 4.	
7	The department's classroom.	
	Basic equipment:	
	tables - 6 and chairs - 12; visual aids - 16; stands - 4.	
8	Clinic equipment used by students during their internships	

# 3.5. Professional databases, information and reference systems, electronic educational resources.

No.	Resource name	Resource Description	Access	Resource address
p.p.				
		Electronic library	systems	
1.	Student Consultant. Medical University Electronic Library	For students and teachers students of medical and pharmaceutical universities Provides access to electronic versions of textbooks kov, textbooks and periodicals.	library, individual access	http://www. studmedlib.ru/
2.	"Doctor's Consultant" Electronic Medical Library.	Materials, sizes The library's curriculum is developed by leading by Russian specialists based on modern scientific knowledge (evidence-based medicine). The information was prepared taking into account the position of the scientific and practical medical community (world, European and Russian) according to the relevant specialization ality. All materials have undergone mandatory independent review.	library, individual access	httn://www.rosmedli b.ru/cgi-bin/mb4x
3.	PubMed	MedLine, the largest medical bibliographic database. It documents medical and biological articles from specialized literature and provides links to full-text articles.	library, free access	http:// www. ncbi.nlm.nih . gov/ pubmed /

4.	Oxford Medicine Online	A collection of Oxford Press medical publications, bringing together over 350 titles into a single, cross- searchable resource. Publications include The Oxford Handbook of Clinical Medicine and The Oxford Textbook of Medicine, the electronic	library, free access	http://www.oxfordm edicine.com
		versions of which are continually updated.		
5.	Human Biology Knowledge Base	Reference information on physiology, cell biology, genetics, biochemistry, immunology, and pathology. (Source: Institute of Molecular Genetics, Russian Academy of Sciences.)	library, free access	http://humbio.ru/
6.	Medical online library	Free reference books, encyclopedias, books, monographs, essays, English-language literature, tests.	library, free access	http://med-lib.ru/
		Information sys	tems	
7.	Russian Medical Association	A professional internet resource. Objective: to promote effective professional activity. of medical personnel. Contains the charter, personnel, structure, rules of entry, and information about the Russian Medical Union.	library, free access	http://www.rmass.ru /
8.	Web medicine	The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.	library, free access	http: //webmed.irkutsk.ru/
	XX7 11XX 1.1	Databases	111	http://www.who.int/a
9.	World Health Organization	The site contains news, statistics on countries that are members of the World Health Organization, fact	library, free access	http://www.who.int/r u/

sheets, reports, WHO publications, and much more.  10. Ministry of Website of the Ministry of library, http://v	
more.	
10   Ministry of   Website of the Ministry of   library   http://w	
	www.minobrna
Science and Science and Higher free access uki.gov	v.ru
higher education   Education	
Russian The Russian Federation	
Federation contains news,	
newsletters, reports,	
publications and much more	
11. Ministry of The website of the Ministry library, https://	/edu.gov.ru/
Education of Education of the Russian free access	C
Russian Federation contains news,	
Federation newsletters, reports,	
publications and more	
12 Enderel Doutel library from http://	// www .
A single window for access edu.n	
Education" to educational resources.	
http://	/window.edu.ru
medicine and healthcare.   /catalo	og/?p rubr 81.1
Bibliographic databases	01.1
	/www.scsml.rss
"Russian Scientific and access i.ru/	, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,
Medicine" Methodological Library, it	
covers the entire collection	
since 1988. The database	
contains bibliographic	
descriptions of articles	
from Russian journals and	
collections, dissertations	
and their abstracts, as well	
as Russian and foreign	
books, institute	
proceedings, conference	
materials, etc.	
Thematically, the database	
covers all areas of medicine and related fields of	
biology, biophysics,	
biochemistry, psychology,	
etc.	
14. eLIBRARY.RU A Russian information portal library, free http://	/elibrary.ru/def
in the fields of science, access aultx.	
technology, medicine, and	
education, containing	
abstracts and full texts of	
more than 13 million	
scientific articles and	
publications.	
eLIBRARY.RU platform	
offers electronic versions of	
over 2,000 Russian	
scientific and technical	
journals, including over	

15.	Portal Electronic Library of Dissertations	1,000 open-access journals . Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	library, free access	httn://diss.rsl.ru/?me nu=disscatalog/
16.	Medline.ru	Biomedical portal for specialists. Biomedical journal. Last updated February 7, 2021.	library, free access	http://www.medline.r u

# ${f 3.6.}$ Licensed and freely distributed software used in the educational process

	II. Commercial software products			
1.	MS Windows 7 Pro operating system	License number 48381779		
2.	Operating system MS Windows 10 Pro ,	AGREEMENT No. 142 A dated December		
	MSOffice	25, 2019		
3.	MS Office	License numbers : 43234783, 67810502,		
		67580703, 64399692, 62795141, 61350919		
4.	Kaspersky Endpoint Security for Business Advanced	Agreement No. 977/20 dated 12/24/2020		
5.	1 C: PROF University	LICENSE AGREEMENT No. 2191 dated		
		October 15, 2020		
6.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated		
		November 11, 2020		
	II . Freely distrib	uted software		
		Freely distributed		
1.	Google Chrome	<u>Distribution Terms</u> :		
1.	Google Chrome	https://play.google.com/about/play-		
		terms/index.html		
		Freely distributed		
		License Agreement for the Use of Yandex		
2.	Yandex Browser	Browser Software		
		https :// yandex . ru / legal /		
		browser_agreement /		
		Freely distributed		
3.	Dr.WebCureIt!	License Agreement: https://st.drweb.		
٥.	DI. Webether:	com / static / new - www / files / license _		
		CureIt _ ru . pdf		
4.		Freely distributed		
	OpenOffice	License: http://www.gnu.org/copyleft/		
		lesser . html		
		Freely distributed		
5.	LibreOffice	License: https://ru.libreoffice.org/about		
		- us / license /		

### 3.7 Resources of the information and telecommunications network "Internet"

- 1. <a href="https://www.rosminzdrav.ru/">https://www.rosminzdrav.ru/</a> website of the Russian Ministry of Health
- 2. www.emergeneyrus.ru
- 3. <a href="http://www.goldcopd.org/">http://www.goldcopd.org/</a>
- 4. http://www.ginasthma.com/
- 5. <a href="http://www.videotest.ru/ru/app/179/">http://www.videotest.ru/ru/app/179/</a>
- 6. http://asmok.ru/,
- 7. http://www.teva.ru/
- 8. http://www.lvrach.ru/
- 9. <a href="http://www.medicina-journal.ru/">http://www.medicina-journal.ru/</a>
- 10. <a href="http://www.medscape.com/">http://www.medscape.com/</a>
- 11. http://www.medline.ru/
- 12. http://www.rmj.ru/
- 13. <a href="http://www.medmir.com/www.nemb.ru">http://www.medmir.com/www.nemb.ru</a>

# 4. Fund of assessment tools for conducting interim assessment

# 4.1. Examples of test tasks for intermediate control

Access mode: https://educ-amursma.ru/mod/quiz/view.php?id=5209

- 1. **THE** FUNCTIONAL RESPONSIBILITIES OF THE REGISTRATION OFFICE INCLUDE:
  - A) distribution of patient flow in the clinic
  - B) providing emergency care
  - B) issuing referrals for examination
  - D) registration of documents for medical examination

### 2. THE DUTIES OF THE DISTRICT PHYSICIAN DO NOT INCLUDE:

- A) determination of the disability group
- B) provision of medical care
- B) referral for spa treatment
- D) issuance of a certificate of incapacity for work
- 3. STAGES OF MEDICAL EXAMINATION ACCORDING TO NEW LEGISLATIVE DOCUMENTS:
  - A) two stages
  - B) four stages
  - B) three stages
  - D) one stage

# 4.2. List of practical skills that a student should possess after completing the internship

The student must be able to

- 1 Collect anamnesis, interview the patient
- 2 Properly conduct a physical examination of the patient (inspection, palpation, auscultation, measurement of blood pressure, determination of the properties of the arterial pulse, etc.) and identify the main objective data
- 3 Assess the patient's condition to decide whether medical care is needed
- 4 Determine the minimum laboratory and instrumental studies necessary to establish a diagnosis
- 5 Establish priorities for solving the patient's health problems: critical (terminal) condition, condition with pain syndrome, condition with a chronic disease, condition with an infectious disease, disability, condition of mentally ill patients
- 6 Interpret the obtained research results
- 7 To make a preliminary diagnosis is to synthesize information about the patient in order to determine the pathology and the causes that cause it
- 8 Outline the scope of additional research in accordance with the disease prognosis, to clarify the diagnosis and obtain a reliable result
- 9 Assess the severity of the patient's condition (mild, moderate, severe).
- 10 Formulate a clinical diagnosis
- Use diagnostic algorithms (primary, concomitant, complications) taking into account the International Statistical Classification of Diseases and Related Health Problems (ICD)
- Formulate indications for the selected treatment method taking into account etiotropic and pathogenetic agents, justify pharmacotherapy in a specific patient with the main pathological syndromes and emergency conditions, determine the route of administration, regimen and dose of drugs, evaluate the effectiveness and safety of the treatment
- Determine indications for outpatient treatment of the patient
- 14 Create a treatment plan for a specific patient
- Be able to explain the mechanism of action of drugs
- 16 Use different methods of drug administration
- Write out prescriptions (taking into account social rights to subsidized drugs) and drugs that are on the subject-quantity register
- 18 Provide emergency assistance before the ambulance arrives
- 19 Analyze and interpret the results of modern diagnostic technologies
- Apply basic methods of clinical and immunological examination and assessment of the functional state of the patient's body
- Perform basic medical diagnostic and therapeutic measures to provide first aid in emergency and life-threatening conditions
- 22 Conduct resuscitation measures in the event of clinical death
- Timely identification of life-threatening disorders (acute blood loss, respiratory failure, pulmonary edema, hypertensive crisis, myocardial infarction, cardiac asthma, cardiac arrest, paroxysmal tachycardia, coma, anaphylactic shock), use methods for their immediate elimination, and carry out anti-shock measures
- 24 Determine the indications for hospitalization of medical patients
- Determine the patient's ability to work at the time of the initial examination and after completion of treatment
- Use legislative acts on the examination of temporary and permanent disability; establish the cause of temporary disability and the criteria for recovery and discharge to work
- 27 Correctly prepare documents certifying temporary disability
- Timely identification of signs of disability, prediction of disability group, preparation of documents for referral to the Medical and Social Expertise (MSE)
- 29 Timely identification of indications for rational employment and its proper implementation
- 30 Draw up an Individual Plan of Action for a disabled person

- Conduct medical examinations, draw up a medical examination plan, a plan for health measures; evaluate the quality and effectiveness of medical examinations
- 32 Provide the patient with recommendations on primary prevention and a healthy lifestyle
- 33 Select individuals for BCG vaccination and revaccination based on the results of mass tuberculin testing, evaluate the nature of the local vaccination reaction and possible post-vaccination complications; form high-risk groups for tuberculosis; and evaluate the effectiveness of patient follow-up.
- Correctly maintain and fill out medical documentation: outpatient card of the patient (form No. 025u-04), certificate of incapacity for work, control card of the patient registered with the dispensary (No. 095/u), referral to the Medical and Social Expertise (No. 088/u-97), referral for hospitalization (No. 070/u-04), registration card of the medical examination of the employee (No. 131 / u-DD), emergency notification of an acutely contagious patient (No. 058-u), passport of the medical station (No. 030/u-ter), doctor's diary (No. 039-u), sanatorium and resort card (No. 072/u-04), etc.
- 35 Be able to draw up annual medical reports and plans for clinical examination of patients

## 4. 3. List of questions for the test

- 1. Clinic management. Functions of the chief physician of the clinic.
- 2. Structure of the city municipal polyclinic.
- 3. Clinic registration. Tasks and functions of the registry
- 4. Auxiliary diagnostic departments of the polyclinic. Department tasks.
- 5. Functions of a general practitioner (family doctor).
- 6. Accounting and reporting documentation of a district general practitioner, general practitioner (family doctor).
- 7. Organization of the activities of the local general practitioner.
- 8. Tasks and functions of the district general practitioner
- 9. Rights and responsibilities of specialist doctors at the clinic (cardiologist, pulmonologist, gastroenterologist, endocrinologist, etc.).
- 10. Functions of the Deputy Chief Physician for the examination of temporary disability
- 11. Deontological principles in the work of a district physician, general practitioner
- 12. Department of Prevention. Structure and tasks of the department.
- 13. Basic medical documentation of the therapeutic service in the clinic . 14. Criteria for the effectiveness of the activities of the district general practitioner.
- 15. Procedure for issuing prescriptions to outpatients. Specifics of issuing prescriptions for narcotic drugs.
- 16.Organization of preventive work in the clinic. Organization of preliminary and periodic medical examinations.
- 17. The procedure for issuing prescriptions and dispensing medications to persons entitled to a preferential set of social services
- 18. Health centers. Main tasks of the health center.
- 19. Oncological alertness in the work of a district physician. A program for examining patients with suspected oncological disease in a polyclinic setting,
- 20. Electronic outpatient card. Pros and cons of an electronic card
- 21. Medical examination. Health status groups. Criteria for the effectiveness of medical examination.
- 22. Medical examination of the adult population. Objectives of medical examination . Groups for medical registration.
- 23 Preventive counseling as part of medical examination of the adult population. Definition. Objectives.
- 24. Brief preventive counseling. Purpose. Algorithm of brief preventive counseling
- 25. In-depth preventive counseling. Purpose. Algorithm of in-depth preventive counseling.

- 26. Primary prevention of socially significant diseases (cardiovascular, tuberculosis, cancer, diabetes, etc.).
- 27. Possibilities of examination in a clinic to verify a diagnosis. Tactics of a district physician and general practitioner
- 28. Methodology for writing an annual medical report and observation plan for a dispensary patient
- 29. Algorithm for establishing a preliminary and detailed clinical diagnosis for abdominal pain syndrome. Indications for hospitalization.
- 30. Sanatorium-resort treatment. Definition. Objectives. General indications and contraindications for referral to sanatorium-resort treatment.
- 31. Procedure for issuing documents certifying temporary disability Procedure for filling out a temporary disability certificate
- 32. Advantages and disadvantages of spa treatment. Rules for obtaining a certificate for obtaining a spa treatment voucher (Form No. 070/u) and a spa card (Form No. 072/u).
- 33. Indications for referring patients for inpatient treatment
- 34. Functions and composition of the VK
- 35. Organization of provision of primary health care to persons entitled to a set of social services
- 36. Organization of the work of a general practitioner
- 37. Principles of lean manufacturing
- 38. Clinical and diagnostic criteria. Basic principles of outpatient treatment of diseases of the bronchopulmonary system, cardiovascular diseases, diseases of the digestive system, biliary and urinary systems, and joint diseases.