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

AGREED
Vice-Rector for Academic Affairs
_____N. V. Loskutova
April 17, 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 HE Amur SMA of the Ministry of Health of the Russian Federation
_____ I.V. Zhukovets
April 20, 2025

ДОКУМЕНТ ПОДПИСАН ЭЛЕКТРОННОЙ ПОДПИСЬЮ
Сертификат: 50AB224260 4E6452 0BS2614FA420034A
Владелец: Жуковец Ирина Валентиновна
Действителен: с 15.04.2025 до 09.07.2026

EDUCATIONAL PROGRAM
discipline "Emergency Conditions In The Practice Of A District Physician"

Specialty: 31.05.01 General Medicine
Course: 6
Semester: 12
Total hours: 72 hrs.
Total credits: 2 credit units
Form of control: credit (12 semester)

Blagoveshchensk 2025

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).

Authors: Head of the Department of Anesthesiology, Resuscitation, Intensive Care and Emergency Medical Care, Ph.D. of Medical Sciences, Associate Professor S.V. Khodus; Senior lecturer of the Department anesthesiology, resuscitation, intensive care and emergency medical care, V.S. Oleksik.

Reviewers: Head of the Department of Hospital Therapy with Pharmacology course named after Professor Yu.S. Landyshev, Doctor of Medical Sciences, Professor V.V. Voitsekhovsky;
Chief freelance specialist of the Ministry of Health of the Amur Region in the field of anesthesiology and resuscitation, head of the center of anesthesiology and resuscitation of the State Autonomous Healthcare Institution of the Amur Region Regional Children's Clinical Hospital R.S. Petrenko.

APPROVED at the meeting of the Department of Anesthesiology, Resuscitation, Intensive Care and Emergency Medical Care, protocol No. 8 dated April 7, 2025.

Head of Department, Ph.D. of Medical Sciences, Docent _____ **S.V. Khodus**

Conclusion of the Expert Commission on the review of the Educational Programs: Protocol No. 7 dated April 17, 2025

Expert of the Expert Commission
Ph.D. of medical Sciences, Docent _____ **S.V. Medvedeva**

APPROVED at the meeting of the CMC No. 9:
Protocol No. 7 dated April 17, 2025

Chairman of the CMC No. 9,
Ph.D. of medical Sciences, Docent _____ **S.V. Medvedeva**

AGREED:
Dean of the Faculty of Medicine,
Ph.D. of Medical Sciences
April 17, 2025 _____ **N.G. Brush**

CONTENT

1. EXPLANATORY NOTE

1.1. Characteristics of the discipline.

Emergency conditions can develop suddenly in any person. Delay in providing emergency medical care can lead to various serious consequences for the patient's health, including rapid death. The doctor must know the basic methods of diagnosing emergency conditions and be proficient in first aid techniques. A primary care doctor, by virtue of his profession, is often the first to help a patient. He must not only have a perfect command of the methods of providing care, but also be able to provide care to prevent serious consequences of suddenly developing life threatening conditions.

1.2. Objectives and tasks of the discipline.

The purpose of teaching the course: " Emergency conditions in the practice of a local therapist " is in -depth study of theoretical knowledge of emergency conditions and mastering the basic skills, methods and algorithms for providing emergency medical care in emergency conditions at the pre-hospital stage.

Learning objectives of the discipline:

- familiarizing students with the etiology and pathogenesis of critical conditions, the pathophysiological essence of the processes occurring during dying and recovery of the body;
- students acquire knowledge of diagnostics and principles of treatment of critical conditions in patients at the pre-hospital stage ;
- developing skills for a qualified approach to patients with disorders of vital body functions;
- student training a set of resuscitation and intensive care measures for acute respiratory and circulatory disorders, and clinical death; the use of modern methods of resuscitation and intensive care in providing assistance to patients in critical conditions of various etiologies;
- the formation of a sustainable algorithm for cardiopulmonary and cerebral resuscitation.

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

In accordance with the Federal State Educational Standard of Higher Education - a specialist in the specialty 31.05.01 General Medicine (2020), the discipline " Emergency conditions in the practice of a district therapist" refers to the optional part, block 1 and is taught in the 6th year. The total workload of the discipline is 72 hours (2 credit units). Of these, 48 classroom hours, 24 hours are allocated for independent work. Form of control - credit, XII semester **.**

Students are trained on the basis of continuity of knowledge and skills acquired in previous courses.

1.4. Requirements for students

To study this academic discipline, the following knowledge, skills and abilities, formed by previous disciplines, are required:

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 electrolyte balance of the human body, colligative properties of solutions (diffusion, osmosis, osmolarity , osmolality); − 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, physiological, age-related, gender-related and individual characteristics of the structure and development of a healthy and sick organism; − knows the concepts of etiology, pathogenesis, morphogenesis, pathomorphosis of disease, nosology, principles of classification of diseases, basic concepts of general nosology ; − knows the functional systems of the human body, their regulation and self-regulation when exposed to the external environment in normal and pathological conditions; − knows the theoretical foundations of computer science, collection, storage, search, processing, transformation, distribution of information in medical and biological systems, the use of information computer systems in medicine and healthcare.
Skills: − knows how to use educational, scientific, popular science literature, the Internet professional activity; − uses physical, chemical and biological equipment; − uses various dosage forms in the treatment of certain pathological conditions, based on from their characteristics, to assess possible manifestations of drug overdose and ways to eliminate them; − interprets the results of the most common methods of functional diagnostics used to identify pathologies of the blood, heart and blood vessels, lungs, kidneys, liver and other systems; − 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.) from pathologically altered ones in blood serum, reads a proteinogram and explains the reasons for the differences; − substantiates the principles of pathogenetic therapy of the most common diseases.
Skills: − has a command of medical and anatomical concepts; − has the skills to use medicines 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, Traumatology and orthopedics, Endocrinology, Emergency conditions in therapy, Public health and healthcare, health economics

Knowledge: − knows the basics of the legislation of the Russian Federation on public health protection, the main regulatory and technical documents; − knows the modern classification of diseases; − 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, 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 basics of organizing medical (outpatient and inpatient) care for various population groups; − knows the diagnostic criteria for various diseases; − knows the specifics of the organization and scope of work of an outpatient physician, the modern diagnostic capabilities of the outpatient service, methods of conducting emergency measures, indications for planned hospitalization of patients;
− knows the clinical manifestations of the main surgical syndromes; − knows the specifics of providing first aid and resuscitation to victims of road traffic injuries, drowning, electrical injury, strangulation asphyxia, methods of 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, eye, ear, throat, nose;
− sets priorities for solving the patient's health problems: critical (terminal) condition, condition with pain syndrome, condition with chronic disease, condition with infectious disease, disability, geriatric problems, condition of mentally ill patients;
− make a preliminary diagnosis - synthesize information about the patient in order to determine the pathology and the causes that cause it;
− knows how to outline the scope of additional research in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result;
− can determine the presence of a fracture or dislocation, free gas in the abdominal cavity, hydro -pneumothorax from an X-ray;
− knows how to select an individual type of care for treating a patient in accordance with the situation: primary care, emergency care, hospitalization;
− is able to formulate indications for the selected method of treatment 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, assess the effectiveness and safety of the treatment;
− uses various methods of administering medications;
− is able to make a preliminary diagnosis and synthesize information about the patient in order to determine the pathology and the causes that cause it;
− knows how to outline the scope of additional research in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result;
− provides first aid in emergency situations, first medical aid to victims in affected areas in emergency situations;
− knows how to examine patients with various traumatic injuries, with purulent-septic conditions, identify life-threatening disorders in bleeding,
− monitors hemodynamic and respiratory parameters;
− carries out resuscitation measures in the event of clinical death;

Skills:

− has mastered the methods of general clinical results of instrumental detailed examination;
− has experience interpreting laboratory diagnostic methods;
− has a command of the clinical diagnosis algorithm;
− has an algorithm for making a preliminary diagnosis with subsequent referral of the patient to the appropriate specialist doctor;
− has mastered the basic medical diagnostic and therapeutic measures to provide first aid in emergency and life-threatening conditions.
− the fundamentals of medical diagnostic and therapeutic measures to provide first aid in emergency and life-threatening conditions.

1.5. Requirements for the results of mastering the discipline

The study of the discipline "Emergency conditions in the practice of a district therapist" is aimed at improving the following competencies: universal (UC) UC-1, general professional (GPC) GPC-4 and professional (PK) PC-1,2,3,4,5.

No. p/p	Code and name of competence	Code and name of the indicator of achievement of competence	As a result of studying the academic discipline "Emergency conditions in the practice of a local therapist" The student must:		
			Know	**Be able to**	**To own**
Universal competencies					
1	UC-1. Capable of carrying out a critical analysis of problematic situations based on a systems approach, developing an action strategy	**AI UC-1.1.** Analyzes the problem situation based on a systems approach. **AI UC-1.3.** Applies systems analysis to resolve problematic situations in the professional sphere.	- algorithms for diagnostics and providing assistance to patients in emergency and urgent cases.	− outline the scope of additional research in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result; − formulate indications for the selected treatment method, taking into account etiotropic and pathogenetic agents.	− skills in making syndromic diagnosis
General professional competencies					

	GPC-4. Capable of using medical products provided for by the procedure for providing medical care, as well as conducting patient examinations to establish a diagnosis	**AI GPC-4.1.** Uses modern medical technologies, specialized equipment and medical products, disinfectants, drugs, including immunobiological and other substances and their combinations when solving professional problems from the standpoint of evidence-based medicine. **AI GPC-4.2.** Knows the indications and contraindications for the appointment of instrumental, functional and laboratory examination methods, possible complications during the examination, emergency care and their prevention. **AI GPC-4.3.** Interprets the results of the most common methods of instrumental, laboratory and functional diagnostics, thermometry to identify pathological processes.	- modern methods of clinical, laboratory and instrumental diagnostics of patients with a therapeutic profile, in emergency conditions	− conduct a physical examination of the patient (inspection, palpation, auscultation, measurement of blood pressure, determination of the properties of the arterial pulse, etc.) assess the patient's condition in order to decide on the need for medical care; − conduct a primary examination of systems and organs: nervous, endocrine, immune, respiratory, cardiovascular, blood and hematopoietic organs, digestive, urinary,	− algorithm for making a preliminary diagnosis with subsequent referring them for additional examination and to specialist doctors; – algorithm for establishing a detailed clinical diagnosis for patients – interpretation results laboratory, instrumental diagnostic methods;
		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 clinical diagnosis according to ICD		reproductive, musculoskeletal and joint, eye, ear, throat, nose; − formulate a clinical diagnosis.	
Professional competencies					

	PC-1 Capable of providing medical assistance in urgent and emergency situations	**AI PC - 1.1.** Identifies clinical signs of conditions requiring emergency medical care **AI PC -1.2.** Provides emergency medical care to patients with sudden acute illnesses, conditions, exacerbation 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 in conditions that pose a threat to the patient's life. **AI PC -1.5.** Reveals signs of sudden cessation of blood circulation and breathing **AI PC - 1.6.** Performs basic cardiopulmonary resuscitation measures 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) .	– etiology, pathogenesis, diagnosis, treatment and prevention of the most common diseases, emergency conditions, treatment methods and indications for their use; – Features of providing medical care in emergency situations. – principles and methods of providing first aid in emergency situations; – methods for carrying out emergency measures.	– identify life-threatening disorders and provide emergency care ; – carry out resuscitation measures in the event of clinical death.	– basic medical diagnostic and therapeutic measures to provide first aid in emergency and lifethreatening conditions; – methods of cardiopulmonary resuscitation, electropulse therapy.
	PC-2. Capable of collecting and analyzing complaints, life history and medical history of the patient in order to establish a diagnosis	**AI PC -2 .1.** Establishes contact with the patient. **AI PC- 2.2.** Collects complaints, specifies them, highlighting the main and secondary ones.	– diagnostic methods, diagnostic capabilities of methods of direct examination of a	– determine the patient's status: collect anamnesis, interview the patient and/or his relatives	– evaluation methods states health population various age-gender groups.

		AI PC- 2.3. Collects and analyzes information about 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.** Analyzes the timing of the first and repeated requests for medical care, the volume of therapy performed, and its effectiveness. **AI PC -2.5 .** Collects and evaluates information about the medical history, including data on past illnesses, injuries and surgeries, hereditary, professional, epidemiological history.	patient with a therapeutic profile; − algorithm for interviewing a patient in an emergency situation (SAMPLE interview algorithm)		
	PC-3. Capable of conducting a physical examination of a patient, analyzing the results of additional examination methods in order to establish a diagnosis	**AI PC-3.1.** Conducts a complete physical examination of the patient (inspection, palpation, percussion, auscultation) and interprets its results **AI PC-3.2.** Justifies the necessity, volume, sequence of diagnostic measures (laboratory, instrumental) and referral of the patient to specialist doctors for consultations **AI PC-3.3.** Analyzes the results of the patient examination, if necessary, justifies and plans the scope of additional studies. **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.** Performs early diagnostics of internal organ diseases. Establishes a diagnosis taking into account the current international statistical classification of diseases and related health problems (ICD)	− diagnostic methods, diagnostic capabilities of methods of direct examination of a patient with a therapeutic profile; − modern methods of clinical, laboratory and instrumental examination of patients. − modern methods of clinical, laboratory and instrumental diagnostics of patients with a therapeutic profile, in emergency conditions	− determine the patient's status: conduct a physical examination of the patient (inspection, palpation, auscultation, measurement of blood pressure, determination of the properties of the arterial pulse, etc.)	− evaluation methods states health population various age-gender groups; − methods of general clinical examinations; interpretation results laboratory instrumental diagnostic methods. − interpretation of the results of laboratory and instrumental diagnostic methods

		AI PC-3.6. Conducts differential diagnostics of internal organ diseases from other diseases			

	PC-4. Capable of determining indications for hospitalization, indications for emergency, including emergency specialized, medical care	**AI PC-4.1.** Defines medical indications for the provision of emergency, including emergency specialized, medical care **AI PC-4.3.** Uses medical products in accordance with current procedures for the provision of medical care, clinical recommendations (treatment protocols) on issues of providing medical care, care taking into account the standards of medical care	– etiology, pathogenesis, diagnosis, treatment and prevention of the most common diseases, emergency conditions, treatment methods and indications for their use; – Features of providing emergency care, including emergency specialized medical care in emergency situations. – principles and methods of providing emergency care, including emergency specialized medical care in emergency situations; – methods of providing emergency, including emergency specialized medical	– identify life-threatening disorders and provide emergency care, including emergency specialized care in emergency situations;	– the main medical diagnostic and therapeutic measures to provide emergency, including emergency specialized medical care in urgent and lifethreatening conditions
			care in urgent and life-threatening conditions		

	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 the current procedures for the provision of medical care, clinical recommendations, taking into account the 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 the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care **AI PC-5. 5.** Organizes personalized treatment of the patient, including pregnant women, elderly and senile patients	− etiology, pathogenesis, diagnosis, treatment and prevention of the most common diseases, emergency conditions, treatment methods and indications for their use.	− develop a treatment plan for the patient taking into account the course of the disease, select and prescribe drug therapy, use non-drug treatment methods; select − an individual type of care for treating a patient in accordance with the situation: primary care, emergency care, hospitalization.	− algorithm for performing basic medical diagnostic and therapeutic measures to provide first medical aid in urgent and threatening life states.

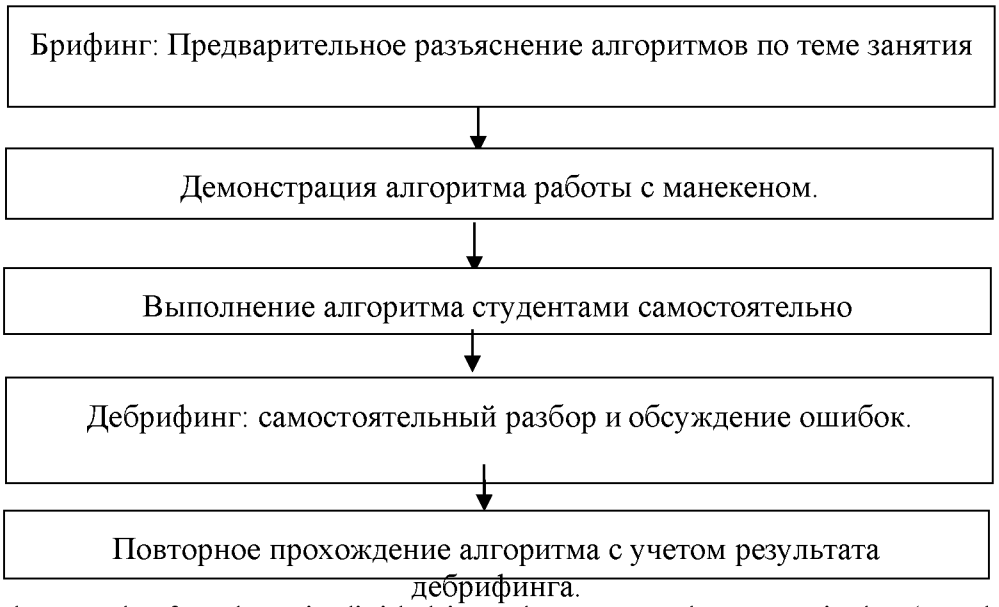
1. 6. Stages of competencies formation and description of assessment scales

1.7. Forms of training organization and types of control.

The training consists of classroom studies (48 hours), including a lecture course of 14 hours and practical classes - 10 days (34 hours), independent work 24 hours. The main study time is allocated to practical work on mastering practical skills in diagnosing critical conditions and providing first aid and resuscitation measures at the pre-hospital stage.

Practical classes are held at the Accreditation and Simulation Center in the form of simulations, interactive simulations (according to the algorithm presented in Fig. 1), practicing practical skills on simulators and dummies, and interviews and discussions (debriefing).

Fig. 1. Algorithm of work in the Accreditation and Simulation Center.



Independent work of students is divided into classroom and extracurricular (mandatory for all students and optional). Extracurricular independent work implies preparation on issues not included in the subject of classroom classes and includes independent study of the material, preparation and defense of the abstract, as well as preparation for current and midterm assessment

(24 hours). Extracurricular independent work on a number of topics studied is participation in an interactive simulation on the Academy's distance learning platform.

Work with educational literature is considered as a type of educational work in the discipline " Emergency conditions in the practice of a local therapist" and is carried out within the hours allocated for its study.

Each student has access to the library collections of the Academy and the department. For each topic of the academic discipline, methodological recommendations have been developed for students: "Algorithm for examining a patient in critical condition", "Modern approaches to cardiopulmonary resuscitation. Fundamentals of basic CPR using AED", "Acute coronary syndrome (cardiogenic shock, pulmonary edema). Diagnostics. First aid at the prehospital stage", "Acute cerebrovascular accident. Diagnostics. First aid at the prehospital stage", "Anaphylactic shock. Diagnostics. First aid at the prehospital stage", "Hemorrhagic shock. Internal bleeding. Diagnostics. First aid at the prehospital stage", "Acute respiratory failure. Broncho-obstructive syndrome. Foreign body in the airways", "Acute respiratory failure. Pulmonary embolism. Spontaneous pneumothorax", "Complications of diabetes mellitus. Hypoglycemic and hyperglycemic coma" and guidelines for teachers of the discipline "Emergency conditions in the practice of a local therapist" .

Types of knowledge control in the discipline:

1. Current monitoring of academic performance includes *entrance monitoring (testing)* – conducted at the first lesson (on issues studied in previous disciplines), as well as *initial monitoring (testing)* – at the beginning of each lesson in order to check individual knowledge, skills, and abilities of students to master the topic of the lesson. *Exit monitoring* – checking the knowledge, skills, and abilities acquired in the lessons (passing a simulation). Conducting a survey on the topic of the lesson at each clinical practical lesson, checking practical skills.
2. Midterm assessment is conducted during a credit lesson in the 12th semester and consists of an oral interview on questions, passing a simulation, and solving test tasks.

2. STRUCTURE AND CONTENT OF THE DISCIPLINE.

2.1. Volume of academic discipline and types of educational activities

Type of academic work		Total hours	Semester XII
Lectures		**14**	**14**
Clinical practical classes		**34**	**34**
Independent work of a student		**24**	**24**
Total labor intensity	**hours**	**72**	**72**
	Z.E.	**2**	**2**

2.2. Thematic plan of lectures and their brief content

Item No.	Thematic plan of lectures and their summary	Code of formed competencies	Labor intensity (hour)
1	**2**	**3**	**4**
1.	**Physiology of critical conditions. Algorithm for examining a patient in critical conditions.** The concept of critical conditions. Basic and specialized resuscitation measures. Cardiopulmonary and cerebral resuscitation. Algorithm for examining patients ABCDE.	UC-1; GPC-1; GPC-4; PC-1; PC-2; PC-3; PC4; PC-5.	2
2.	**Shock. Diagnostics, first aid at the prehospital stage in anaphylactic shock.** Definition. Shock mechanisms: hypovolemia, heart failure, vasoplegia . Anaphylactic shock. Etiology, pathogenesis, classification, clinical picture. Current recommendations, protocols. General principles of intensive care. First aid at the prehospital stage.	UC-1; GPC-1; GPC-4; PC-1; PC-2; PC-3; PC4; PC-5.	2
3.	**Acute respiratory failure, diagnostics, first aid at the prehospital stage.** Definition, etiology, pathogenesis, classification, clinical picture of acute respiratory failure. Diagnostics, course of acute respiratory failure. Methods of restoring airway patency.	UC-1; GPC-1; GPC-4; PC-1; PC-2; PC-3; PC4; PC-5.	2
4.	**Acute coronary syndrome: diagnostics, first aid at the prehospital stage.** Definition, etiology. Clinical picture. Complications of acute coronary syndrome. Cardiogenic shock. Diagnostics, first aid at the prehospital stage. Pulmonary edema. Diagnostics, first aid at the prehospital stage.	UC-1; GPC-1; GPC-4; PC-1; PC-2; PC-3; PC4; PC-5.	2
5.	**Acute surgical pathology, First aid at the pre-hospital stage.** Internal bleeding. Gastrointestinal bleeding. Hemorrhagic shock. Diagnostics, first aid at the pre-hospital stage.	UC-1; GPC-1; GPC-4; PC-1; PC-2; PC-3; PC4; PC-5.	2
6.	**Coma: differential diagnostics, first aid at the pre-hospital stage** . Classification of comatose states. Impaired consciousness. Types (traumatic, apoplectic, as a result of poisoning, dysmetabolic). Pathogenesis, clinical picture, diagnostics. Features of intensive care and resuscitation of diabetic coma, uremic, hepatic, chlorhydropenic , epileptic, acute cerebrovascular accident, cerebral edema. Correction of acid-base balance and water-electrolyte balance disorders.	UC-1; GPC-1; GPC-4; PC-1; PC-2; PC-3; PC4; PC-5.	2
7.	**Acute respiratory failure. Airway obstruction. Severe exacerbation of bronchial asthma.** Bronchial asthma. Severe exacerbation. Relevance of the problem. Prevalence of the disease. Etiology, pathogenesis, classification, clinical presentation, diagnostics. Broncho-obstructive syndrome, laryngospasm, foreign body in the airways. Diagnostics, first aid at the prehospital stage.	UC-1; GPC-1; GPC-4; PC-1; PC-2; PC-3; PC4; PC-5.	2
Total hours			**14**

2.3. Thematic plan of clinical practical classes and their content

Item No.	Name of the topics of practical classes	Contents of topics for practical classes or clinical practical classes	Codes of formed competencies and indicators of their achievement	Types of control	Labor intensity (hours)
1	Algorithm for examining a patient in critical condition.	**Theoretical part:** Terminology issues: terminal condition, its stages. Etiology, pathogenesis and types of cardiac arrest. Algorithm for diagnosing respiratory system, cardiovascular system and consciousness disorders in critically ill patients **Practical part:** development of an algorithm for examining a patient in critical condition.	**UC-1.** AI: 1.1, 1.3 **GPC-4.** AI: 4.1-4.5 **PC-1.** AI: 1.1-1.6 **PC-2.** AI: 2.1, 2.2, 2.3, 2.5 **PC-3.** AI: 3.1-3.6 **PC-4** . AI: 4.1, 4.3 **PC-5.** AI: 5.1, 5.2, 5.3, 5.5	Incoming inspection, initial inspection (testing), final control – business game (passing a simulation scenario)	3.4
2	Modern approaches to cardiopulmonary resuscitation. Fundamentals of basic CPR using AED.	**Theoretical part:** Signs of clinical death; Methods of resuscitation. Types of CPR. Indications, contraindications and timing of resuscitation assistance. Sequence of actions to save life - chain of survival. Universal algorithm and quality of CPR. Sequence of CPR in adults and adolescents (method of artificial respiration, chest compressions, safe position for the victim). Algorithm of CPR using AED. **Practical part:** practicing the CPR algorithm, CPR using AED; practicing practical skills (indirect cardiac massage technique, artificial ventilation).	**UC-1.** AI: 1.1, 1.3 **GPC-4.** AI: 4.1-4.5 **PC-1.** AI: 1.1-1.6 **PC-2.** AI:2.1, 2.2, 2.3, 2.5 **PC-3.** AI: 3.1-3.6 **PC-4** . AI: 4.1, 4.3 **PC-5.** AI: 5.1, 5.2, 5.3, 5.5	Initial control – testing, final control – business game (passing a simulation scenario)	3.4
3	Acute coronary syndrome (cardiogenic shock, pulmonary edema). Diagnostics. First aid at the prehospital stage.	**Theoretical part:** Acute left ventricular failure. Features of intensive care and resuscitation. Cardiogenic shock. Pulmonary edema. Diagnostics. First aid at the prehospital stage. **Practical part:** development of an algorithm for examination and provision of emergency medical care to a patient with true cardiogenic shock and cardiogenic pulmonary edema.	**UC-1.** AI: 1.1, 1.3 **GPC-4.** AI: 4.1-4.5 **PC-1.** AI: 1.1-1.6 **PC-2.** AI:2.1, 2.2, 2.3, 2.5 **PC-3.** AI: 3.1-3.6 **PC-4** . AI: 4.1, 4.3 **PC-5.** AI: 5.1, 5.2, 5.3, 5.5	Initial control – testing, final control – business game (passing a simulation scenario)	3.4

4	Acute cerebrovascular accident. Diagnostics. First aid at the prehospital stage.	**Theoretical part:** Hemorrhagic stroke. Ischemic stroke. Diagnostics. First aid in critical condition at the pre-hospital stage. **Practical part:** development of an algorithm for examination and provision of emergency medical care to a patient with various types of stroke.	**UC-1.** AI: 1.1, 1.3 **GPC-4.** AI: 4.1-4.5 **PC-1.** AI: 1.1-1.6 **PC-2.** AI:2.1, 2.2, 2.3, 2.5 **PC-3.** AI: 3.1-3.6 **PC-4** . AI: 4.1, 4.3 **PC-5.** AI: 5.1, 5.2, 5.3, 5.5	Initial control – testing, final control – business game (passing a simulation scenario)	3.4
5	Anaphylactic shock. Diagnostics. First aid at the prehospital stage.	**Theoretical part:** Etiology and pathogenesis of anaphylactic shock. Classification, clinical picture. Diagnostic criteria. First aid for anaphylactic shock at the prehospital stage. **Practical part:** development of an algorithm for examination and provision of emergency medical care to a patient with anaphylactic shock.	**UC-1.** AI: 1.1, 1.3 **GPC-4.** AI: 4.1-4.5 **PC-1.** AI: 1.1-1.6 **PC-2.** AI:2.1, 2.2, 2.3, 2.5 **PC-3.** AI: 3.1-3.6 **PC-4** . AI: 4.1, 4.3 **PC-5.** AI: 5.1, 5.2, 5.3, 5.5	Initial control – testing, final control – business game (passing a simulation scenario)	3.4
6	Hemorrhagic shock. Internal bleeding. Diagnostics. First aid at the prehospital stage.	**Theoretical part:** Etiology, pathogenesis, classification, clinical picture of hemorrhagic shock. Diagnostics. First aid for hemorrhagic shock at the prehospital stage (external, internal bleeding). **Practical part:** development of an algorithm for examination and provision of emergency medical care to a patient with hemorrhagic shock (internal bleeding, gastrointestinal bleeding).	**UC-1.** AI: 1.1, 1.3 **GPC-4.** AI: 4.1-4.5 **PC-1.** AI: 1.1-1.6 **PC-2.** AI:2.1, 2.2, 2.3, 2.5 **PC-3.** AI: 3.1-3.6 **PC-4** . AI: 4.1, 4.3 **PC-5.** AI: 5.1, 5.2, 5.3, 5.5	Initial control – testing, final control – business game (passing a simulation scenario)	3.4
7	Acute respiratory failure. Bronchoobstructive syndrome. Foreign body in the respiratory tract.	**Theoretical part:** Acute respiratory failure. Etiology, pathogenesis, clinical features, diagnostics. Resuscitation and intensive care in case of foreign body in the upper respiratory tract, asphyxia, severe exacerbation of bronchial asthma. Diagnostics. First aid at the prehospital stage . **Practical part:** development of an algorithm for examination and provision of emergency medical care to a patient with a severe exacerbation of bronchial asthma.	**UC-1.** AI: 1.1, 1.3 **GPC-4.** AI: 4.1-4.5 **PC-1.** AI: 1.1-1.6 **PC-2.** AI:2.1, 2.2, 2.3, 2.5 **PC-3.** AI: 3.1-3.6 **PC-4** . AI: 4.1, 4.3 **PC-5.** AI: 5.1, 5.2, 5.3, 5.5	Initial control – testing, final control – business game (passing a simulation scenario)	3.4

8	Acute respiratory failure. Pulmonary embolism . Spontaneous pneumothorax.	**Theoretical part:** Acute respiratory failure. Etiology, pathogenesis, clinical picture of pulmonary embolism. Etiology, pathogenesis, clinical picture of spontaneous pneumothorax. Diagnostics. First aid at the prehospital stage. **Practical part:** development of an algorithm for examination and provision of emergency medical care to a patient with pulmonary embolism, a patient with spontaneous pre-eumothorax .	**UC-1.** AI: 1.1, 1.3 **GPC-4.** AI: 4.1-4.5 **PC-1.** AI: 1.1-1.6 **PC-2.** AI:2.1, 2.2, 2.3, 2.5 **PC-3.** AI: 3.1-3.6 **PC-4** . AI: 4.1, 4.3 PC-5. AI: 5.1, 5.2, 5.3, 5.5	Initial control – testing, final control – business game (passing a simulation scenario)	3.4
9	Complications of diabetes mellitus. Hypoglycemic and hyperglycemic coma.	**Theoretical part:** Etiology , pathogenesis, clinical manifestations of complications of diabetes mellitus. Risk factors leading to the development of complications of diabetes mellitus. Diagnostics. First aid at the prehospital stage . **Practical part:** development of an algorithm for examination and provision of emergency medical care to a patient with hypoglycemic and hyperglycemic coma.	**UC-1.** AI: 1.1, 1.3 **GPC-4.** AI: 4.1-4.5 **PC-1.** AI: 1.1-1.6 **PC-2.** AI:2.1, 2.2, 2.3, 2.5 **PC-3.** AI: 3.1-3.6 **PC-4** . AI: 4.1, 4.3 **PC-5.** AI: 5.1, 5.2, 5.3, 5.5	Initial control – testing, final control – business game (passing a simulation scenario)	3.4
10	Credit lesson	Demonstration by a student of the algorithm for diagnostics and first medical aid to a patient in critical condition at the pre-hospital stage in one of the critical conditions.	**UC-1.** AI: 1.1, 1.3 **GPC-4.** AI: 4.1-4.5 **PC-1.** AI: 1.1-1.6 **PC-2.** AI:2.1, 2.2, 2.3, 2.5 **PC-3.** AI: 3.1-3.6 **PC-4** . AI: 4.1, 4.3 PC-5. AI: 5.1, 5.2, 5.3, 5.5	Midterm assessment: testing, verification of practical skills (passing a simulation scenario), oral survey on the topics covered.	3.4
Total hours					**34**

2. 4. Interactive forms of learning

Item No.	Topics of clinical practical classes, lectures	Labor intensity in hours	Interactive form of learning	Labor intensity in hours, in % of the lesson
Clinical practical classes				
1.	Algorithm for examining a patient in critical condition.	3.4	Practicing practical skills on mannequins, training devices, and robotic simulators	30 min (0.7 hours) 19.6%
2	Modern approaches to cardiopulmonary resuscitation. Fundamentals of basic CPR using AED.	3.4	Practicing practical skills on mannequins, training devices, and robotic simulators	10 min (0.2 hours) 6%
3	Acute coronary syndrome (cardiogenic shock, pulmonary edema). Diagnostics. First aid at the prehospital stage.	3.4	Practicing practical skills on mannequins, training devices, and robotic simulators	30 min (0.65 hours) 19.1%
4	Acute cerebrovascular accident. Diagnostics. First aid at the prehospital stage.	3.4	Practicing practical skills on mannequins, training devices, and robotic simulators	25 min (0.55 hours) 16.1%
5.	Anaphylactic shock. Diagnostics. First aid at the pre-hospital stage.	3.4	Practicing practical skills on mannequins, training devices, and robotic simulators	10 min (0.2 hours) 6%
6.	Hemorrhagic shock. Internal bleeding. Diagnostics. First aid at the prehospital stage.	3.4	Practicing practical skills on mannequins, training devices, and robotic simulators	10 min (0.2 hours) 6%
7.	Acute respiratory failure. Bronchoobstructive syndrome. Foreign body in the respiratory tract.	3.4	Practicing practical skills on mannequins, training devices, and robotic simulators	30 min (0.65 hours) 19.1%
8.	Acute respiratory failure. Pulmonary embolism. Spontaneous pneumothorax.	3.4	Practicing practical skills on mannequins, training devices, and robotic simulators	10 min (0.2 hours) 6%
9.	Complications of diabetes mellitus. Hypoglycemic and hyperglycemic coma.	3.4	Practicing practical skills on mannequins, training devices, and robotic simulators	90 min (2 hours) 58.8%
10	A credit lesson.	3.4	Practicing practical skills on mannequins, training devices, and robotic simulators	-------
Lectures				
1	Physiology of critical conditions. Algorithm for examining a patient in critical conditions.	2	viewing a multimedia presentation	90 min (2 hours) 100%
2	Shock. Diagnostics, first aid at the prehospital stage in case of anaphylactic shock.	2	viewing a multimedia presentation	90 min (2 hours) 100%
3	Acute respiratory failure, diagnosis, first aid at the pre-hospital stage.	2	viewing a multimedia presentation	90 min (2 hours) 100%

4	Acute coronary syndrome: diagnosis, first aid at the pre-hospital stage.	2	viewing a multimedia presentation	90 min (2 hours) 100%
5	Acute surgical pathology, first aid at the pre-hospital stage.	2	viewing a multimedia presentation	90 min (2 hours) 100%
6	Coma: differential diagnosis, first aid	2	viewing a multimedia presentation	90 min

	at the pre-hospital stage.			(2 hours) 100%
7	Acute respiratory failure. Airway obstruction. Severe exacerbation of bronchial asthma.	2	viewing a multimedia presentation	90 min (2 hours) 100%

2.5. Criteria for assessing students' knowledge

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 imprecise 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.

No. p/p	Topic practical classes	Theoretical Part	Practical Part	General grade
1.	Algorithm for examining a patient in critical condition.	2-5	2-5	2-5
2	Modern approaches to cardiopulmonary resuscitation. Fundamentals of basic CPR using AED.	2-5	2-5	2-5
3	Acute coronary syndrome (cardiogenic shock, pulmonary edema). Diagnostics. First aid at the pre-hospital stage.	2-5	2-5	2-5
4	Acute cerebrovascular accident. Diagnostics. First aid at the prehospital stage.	2-5	2-5	2-5
5.	Anaphylactic shock. Diagnostics. First aid at the pre-hospital stage.	2-5	2-5	2-5
6.	Hemorrhagic shock. Internal bleeding. Diagnostics. First aid at the pre-hospital stage.	2-5	2-5	2-5
7.	Acute respiratory failure. Broncho-obstructive syndrome. Foreign body in the respiratory tract.	2-5	2-5	2-5
8.	Acute respiratory failure. Pulmonary embolism. Spontaneous pneumothorax.	2-5	2-5	2-5
9.	Complications of diabetes mellitus. Hypoglycemic and hyperglycemic coma.	2-5	2-5	2-5
10	A credit lesson.	2-5	2-5	Passed - Failed

Average score	

Rating scales for ongoing knowledge control

The success of students' mastering of the subjects of the discipline, 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. The conversion of the percentage of correct answers when solving test tasks into a point scale is carried out according to the following scheme:

Success rate	Mark on a 5-point scale
90-100%	"5"
80-89%	"4"
70-79%	"3"
Below 70%	"2"

Working off disciplinary debts.

If a student misses a class for a valid reason, he/she has the right to make it up and receive the maximum grade provided for by the course work program for that class. A valid reason must be documented.

If a student misses a class for an unjustified reason or receives a "2" mark for all activities in the class, he/she is required to make it up. In this case, the mark received for all activities is multiplied by 0.8.

If a student is excused from a class at the request of the dean's office (participation in sports, cultural and other events), then he is given a grade of "5" for this class, provided that he submits a report on the completion of mandatory extracurricular independent work on the topic of the missed class.

Criteria for assessing midterm assessment. 1.

Test control in the " Moodle " system.

2. Oral interview on tickets containing theoretical questions, passing a simulation.

Criteria for final assessment (midterm assessment)

Excellent - for the depth and completeness of mastery of the content of the educational material, in which the student easily navigates, for the ability to connect theoretical questions with practical ones, to express and justify their judgments, to present the answer competently and logically; when testing, allows up to 10% of erroneous answers. Practical skills and abilities provided for by the working program of the discipline are fully mastered.

"Good" - the student has fully mastered the educational material, is oriented in it, correctly states the answer, but the content and form have some inaccuracies; during testing allows up to 20% of erroneous answers. Completely practical skills and abilities provided by the working program of the discipline, but allows some inaccuracies

"Satisfactory" - the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, does not know how to express and justify his/her judgments; during testing, allows up to 30% of erroneous answers. Has only some practical skills and abilities.

"Unsatisfactory" - the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and secondary, makes mistakes in defining concepts, distorts their meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% of erroneous answers during testing. Performs practical skills and abilities with gross errors.

Based on the results of different assessments, an average grade is given in favor of the student.

The student's success in mastering the discipline is assessed using a binary system of "passed" and "failed".

The conversion of the mark into a binary scale is carried out according to the following scheme :

Marking on a 5-point system	Binary system mark
"5"	Passed
"4"	
"3"	
"2"	Not accepted

2.6. Independent work of students: in-class, out-of-class. Students' independent classroom work includes:

- independent familiarization under the guidance of a teacher with the methodological material prepared by the department's teachers on the sections being studied;
- taking notes on important aspects of the topic being studied;
- practicing practical skills (Accreditation and Simulation Center).
- watching educational videos videos .
-

Extracurricular independent work of students:

Topic of the practical lesson		Time for student preparation for the lesson (hours)	Forms of extracurricular independent work of a student	
			Mandatory and the same for all students	At the student's choice
1	Algorithm for examining a patient in critical condition.	2.4	Preparation on theoretical issues (lectures, basic and additional literature, methodological recommendations, writing notes), solving test tasks, working in an online classroom, completing interactive simulations	Abstract: "Patient condition assessment scales".
2	Modern approaches to cardiopulmonary resuscitation. Fundamentals of basic CPR using AED.	2.4		Abstract: "Evolution of changes in CPR protocols".
3	Acute coronary syndrome (cardiogenic shock, pulmonary edema). Diagnostics. First aid at the pre-hospital stage.	2.4		Abstract: "Myocardial infarction. Thrombolytic therapy, indications, methodology."
4	Acute cerebrovascular accident. Diagnostics. First aid at the prehospital stage.	2.4		Abstract: "Aneurysm of the cerebral vessels"
5	Anaphylactic shock. Diagnostics. First aid at the prehospital stage.	2.4		Abstract: "Emergency care for anaphylaxis of varying severity."
6.	Hemorrhagic shock. Internal bleeding. Diagnostics. First aid at the pre-hospital stage.	2.4		Abstract: "Mathematical calculations in the practice of a local therapist."
7.	Acute respiratory failure. Broncho-obstructive syndrome. Foreign body in the respiratory tract.	2.4		Abstract: "Acute bronchospasm. Emergency care."
8.	Acute respiratory failure. Pulmonary embolism . Spontaneous pneumothorax.	2.4		Abstract: "Drowning. First aid measures"
9.	Complications of diabetes mellitus. Hypoglycemic and hyperglycemic coma.	2.4		Abstract: "Prevention of diabetes mellitus in young people"

10	A credit lesson.	2.4	Review of literature on past topics	
Labor intensity in hours		**24**	**20**	**4**
Total labor intensity in hours		**24**		

2.7. Research (project) work of students.

It is a mandatory section of the educational program, aimed at the comprehensive formation of universal, general professional and professional competencies. When developing research work, students are given the opportunity to study specialized literature on emergency conditions, participate in scientific research or technical developments, collect, process, and analyze the information received on the topics of "Oxygen status disorders in patients in critical conditions," "First aid, social aspects." To evaluate research work, a binary assessment scale is adopted: “passed”, “failed”.

3. EDUCATIONAL, METHODOLOGICAL, MATERIAL, TECHNICAL AND INFORMATION SUPPORT OF THE DISCIPLINE

3.1. Main literature:

1. Sumin S.A. Emergency conditions: textbook . 7th edition , revised and enlarged. – M.: OOO MIA, 2010. – 960 p.
2. Sumin S.A. Anesthesiology and resuscitation: in 2 volumes - M.: MIA LLC, 2010. - T.1. – 928 pp., T. 2. – 872s.
3. Fundamentals of resuscitation [Electronic resource]: textbook / Sumin S.A., Okunskaya T.V. – M.: GEOTAR-Media, 2013. – 688 p. – ISBN 978-5-9704-2424-7. – Access mode: http://www.studmedlib.ru/book/ISBN9785970424247.html
4. Emergency medical care [Electronic resource] / Vertkin A.L. – M .: GEOTAR-Media, 2007. – 368 p.: ill. – ISBN 978-5-9704-0522-2 . – Access mode: http://www.studmedlib.ru/book/ISBN9785970405222.html

3.2. Further reading:

1. Intensive care: national guidelines: in 2 volumes/edited by B.R. Gelfand, A.I. Saltanov. – M.: GEOTAR-Media, 2011. – V.2. – 784 p. – (Series “National Guidelines”).
2. Anesthesiology: national guidelines/edited by A.A. Bunyatyan , V.M. Mizikov . – M.: GEOTARMedia, 2011. – 1104 p. – (Series “National Guidelines”).
3. Emergency care for diseases of internal organs at the pre-hospital stage: manual for doctors / edited by V.A. Galkin. - M .: OOO "MIA", 2009. - 200 p.
4. Emergency care in therapy and cardiology / edited by Yu. I. Grinshtein . - M.: GEOTAR-Media, 2009. - 224 p.
5. Syncopal states in clinical practice/edited by S.B. Shustov. – St. Petersburg: ELBI, 2009. – 336 p.
6. Anesthesiology and resuscitation [Electronic resource]: textbook / Edited by O.A. Dolina. - 4th ed., revised and enlarged . - M .: GEOTAR-Media, 2009. - 576 p. - ISBN 978-5-9704-1033-2 - Access mode: http://www.studmedlib.ru/book/ISBN9785970410332.html
7. Anesthesiology and Intensive Care: A Practical Guide [Electronic resource] / Edited by Corresponding Member of the Russian Academy of Medical Sciences, Professor B.R. Gelfand. - 2nd ed., corrected . and additional. - M .: Litterra , 2012. - 640 p. - Access mode: http://www.studmedlib.ru/book/ISBN9785423500467.html
8. Modern approaches to solving the problem of sudden cardiac death [Electronic resource] / V. V. Rezvan , N. V. Strizhova , A. V. Tarasov; edited by L. I. Dvoretsky. - M .: GEOTAR-Media, 2015.

- 96 p. - ISBN 978-5-9704-2534-3. - Access mode: http://www.studmedlib.ru/book/ISBN9785970425343.html

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

1. Video lecture "Modern approaches to CPR" - Khodus S.V. (https :// educ - amursma . ru / course / view . php ? id = 241).
2. Video lecture "Shock. General principles of therapy. Cardiogenic shock" - Khodus S.V. (https :// educ - amursma . ru / course / view . php ? id = 241).
3. Video lecture "Anaphylactic shock" - Khodus S.V. (https :// educ - amursma . ru / course / view . php ? id = 241).
4. Electronic interactive presentation "Acute respiratory failure, methods of restoring patency of the upper respiratory tract" - Khodus S.V. (https :// educ - amursma . ru / course / view . php ? id = 241).
5. Electronic interactive presentation "Bronchial asthma. Severe exacerbation" - Oleksik V.S. (https :// educ - amursma . ru / course / view . php ? id = 241).
6. Video lecture "Secondary comas. Differential diagnostics" - Oleksik V.S. (https :// educ - amursma . ru / course / view . php ? id = 241).

3.4. Equipment used for the educational process

Students are trained in this discipline at the Accreditation and Simulation Center, where simulation rooms, debriefing rooms, and a testing laboratory are used in the training process.

Name of premises	Equipment premises
Classrooms for lecture-type classes: Lecture hall #5 (room #14, 4th floor, 176 m2), 675006, Blagoveshchensk, Gorky st., 101	Premises equipped with specialized furniture, multimedia equipment (screen, projector, laptop), sound amplification equipment
Debriefing room #3, Accreditation and Simulation Center (room #5, 3rd floor), 675006, Blagoveshchensk, Gorky St., 101	Teacher's desk - 1 pc., educational 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., 101	Table - 1 pc., video monitoring and recording system for simulation training - 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 mannequin - 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 patency restoration simulator - 1 pc., Ozhivlennaya Anna simulator mannequin - 3 pcs., automatic external defibrillation simulator Powerheart G5 – 1 pc., training defibrillator Kardia International - 1 pc., Ambu bag - 3 pcs., Electric ventilator - 1 pc., Laryngoscope with a set of blades - 1 pc., Resuscitation phantom - 1 pc., Pulse oximeter YX 300 – 1 pc., glucometer – 1 pc., stand-tripod for intravenous infusions, steel – 3 pcs.

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

No. p/p	Resource name	Resource Description	Access	Resource address

Electronic library systems				
1	"Student Consultant" Electronic library of the medical university.	For students and teachers 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 by leading Russian specialists based on modern scientific knowledge (evidence-based medicine). The information has been prepared taking into account the position of the scientific and practical medical society (world, European and Russian) in the relevant specialty. All materials have undergone mandatory independent review.	library, individual access	http://www.rosmedlib.ru/cgi-bin/mb4x
3	PubMed	Free search engine in the largest medical bibliographic database MedLine . Documents medical and biological articles from the specialized literature, and also provides links to full-text articles.	library, free access	http:// www. ncbi.nlm.nih . gov/ pubmed /
4	Oxford Medicine Online .	A collection of Oxford 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	library, free access	http://www.oxfordmedicine.com
		electronic versions of which are constantly updated.		
5	Human Biology Knowledge Base	Reference information on physiology , cell biology , genetics , biochemistry , immunology , pathology . (Resource of the Institute of Molecular Genetics of the Russian Academy of Sciences .)	library, free access	http://humbio.ru/
6	Medical online library	Free reference books, encyclopedias, books, monographs, abstracts, English-language literature, tests.	library, free access	http://medlib.ru/
Information systems				
7	Russian Medical Association	Professional Internet resource. Objective: to promote effective professional activity of medical personnel. Contains the charter, personnel, structure, rules of entry, information about the Russian Medical Union.	library, free access	http://www.rmass.ru/
8	Web medicine.	The site presents a catalog of professional medical resources, including links to the most authoritative subject sites, journals, societies, as well as useful documents and programs. The site is intended for doctors, students, employees of medical universities and scientific institutions.	library, free access	http: //webmed.irkutsk.ru/
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 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 window for access to educational resources. This portal provides access to textbooks on all areas of medicine and health care.	library, free access	http: // www . edu.ru/ http://window .edu.ru/catalog/?p rubr =2.2.81.1
Bibliographic databases				
13	Database "Russian Medicine"	It is created in the Central Scientific and Methodological Library and covers the entire collection, starting from 1988. The database contains bibliographic descriptions of articles from domestic journals and collections, dissertations and their abstracts, as well as domestic and foreign books, collections of institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related areas of biology, biophysics, biochemistry, psychology, etc.	library, free access	http://www.scsml.rssi.ru/
14	eLIBRARY.RU	Russian information portal in the field of science, technology, medicine and education, containing abstracts and full texts of more than 13 million scientific articles and publications. The eLIBRARY.RU platform provides electronic versions of more than 2,000 Russian scientific and technical journals, including more than 1,000 open access journals.	library, free access	http://elibrary .ru/defaultx.a sp
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	Medical and biological portal for specialists. Biomedical journal. Last updated February 7, 2021.	library, free access	http://www.medline.ru

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

I . Commercial software products		
1	MS Operating System Windows 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	Number licenses : 43234783, 67810502, 67580703, 64399692, 62795141, 61350919
4	Kaspersky Endpoint Security for business Extended	Agreement No. 977/20 dated 12/24/2020
5	1 C: PROF University	LICENSE AGREEMENT No. 2191 dated 15.10.2020

6	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated 11.11.2020
II . Freely distributed software		
1	Google Chrome	Freely distributed Distribution Terms: https :// play . google . com / about / play - terms / index . html
2	Yandex Browser	For free distributed Licensed agreement on usage programs Browser « Yandex » https://yandex.ru/legal/browser_agreement/
3	Dr.Web CureIt !	Freely distributed Licensed agreement : https :// st . drweb . com / static / new - www / files / license _ CureIt _ ru . pdf
4	OpenOffice	Freely distributed License: http :// www . gnu . org / copyleft / lesser . html
5	LibreOffice	Freely distributed License: https :// ru . libreoffice . org / about - us / license /

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

- Ministry of Health of the Russian Federation. Standards of primary health care – https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/1-standarty-pervichnoymediko-sanitarnoy-pomoschi
- Ministry of Health of the Russian Federation. Standards of specialized medical care – https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/2-standartyspetsializirovannoy-meditsinskoy-pomoschi
- Ministry of Health of the Russian Federation. Procedures for providing medical care to the population of the Russian Federation - https://www.rosminzdrav.ru/ministry/61/4/stranitsa857/poryadki-okazaniya-meditsinskoy-pomoschi-naseleniyu-rossiyskoy-federatsii
- Federal Electronic Medical Library (Ministry of Health of the Russian Federation) – http://www.femb.ru
- Student consultant (Electronic library of the higher educational institution) – http://old.studmedlib.ru/ru/index.html
- Electronic library system "Medical library "MEDLIB.RU" - http://www.medlib.ru/
- Amur State Medical Academy (Electronic educational resources) – http://www.amursma.ru/obuchenie/biblioteki/elektronnye-obrazovatelnye-resursy/
- Clinical recommendations of the RKO approved by the scientific and practical council of the Ministry of Health of the Russian Federation "Arterial hypertension in adults": https://scardio.ru/rekomendacii/rekomendacii_rko_odobrennye_nauchnoprakticheskim_sovetom_minzdrava_rf/
- Clinical recommendations of the RCO approved by the scientific and practical council of the Ministry of Health of the Russian Federation "Acute myocardial infarction with ST segment elevation of the electrocardiogram" and "Acute coronary syndrome without ST segment elevation of the electrocardiogram": https://scardio.ru/rekomendacii/rekomendacii_rko_odobrennye_nauchnoprakticheskim_sovetom_minzdrava_rf/
- Clinical recommendations of the RKO approved by the scientific and practical council of the Ministry of Health of the Russian Federation " Bradyarrhythmia and conduction disorders": https://scardio.ru/rekomendacii/rekomendacii_rko_odobrennye_nauchnoprakticheskim_sovetom_minzdrava_rf/

- Clinical guidelines "Anaphylactic shock" All-Russian public organization "Federation of anesthesiologists and resuscitators ", Russian association of allergists and clinical immunologists http://www.far.org.ru/recomendation#

4. ASSESSMENT TOOLS FUND

4.1 Current test control (input, initial, output, final)

Current (entrance) testing is carried out in the distance learning system (https://educamursma.ru/course/view.php?id=241) , by randomly generating an individual version containing 20 questions from the question bank (50 questions) .

Current (initial) testing is carried out in the distance learning system (https://educamursma.ru/course/view.php?id=241) , by randomly generating an individual version for each lesson topic, containing 10 questions from the question bank (30 questions); the total number of questions for current control is 270 .

The final test control is carried out in the distance learning system (https://educamursma.ru/course/view.php?id=241), by randomly generating an individual version containing 100 questions from the question bank (270 questions).

Examples of test tasks:

Choose one correct answer

1. AN ABSOLUTE CONTRAINDICATION FOR THE USE OF B-ADRENERGY RECEPTOR BLOCKERS IS
    1) myocardial infarction
    2) chronic hepatitis C
    3) severe obstructive pulmonary disease
    4) iron deficiency anemia
2. THE GAS WILL DIFFUSE THROUGH THE PERMEABLE MEMBRANE
    1) from a site with a larger volume to a site with a smaller volume
    2) from a high pressure area to a low pressure area
    3) from a site with a smaller volume to a site with a larger volume
    4) from a low pressure area to a high pressure area
3. RESTRICTIVE RESPIRATORY FAILURE DEVELOPES WHEN
    1) obstruction of the bronchial tree
    2) lung tissue resections
    3) decreased elasticity of lung tissue
    4) violation of the integrity of the chest

Answer standards: 1-3; 2-2; 3-3

4.2 Simulation scenario

Example of a simulation scenario.

Topic: Anaphylactic shock

Concept: The class is held in the Accreditation and Simulation Center. The student receives input data and goes to the simulation room, where he must demonstrate skills in the algorithm and technique of providing emergency medical care in critical conditions on a robot simulator. The necessary input data (the emergency medical care dispatcher, the state of individual patient functions, etc.) are announced by the teacher from the video surveillance room. The assessment is carried out according to the developed checklist.

Input data for the student:

You are a general practitioner at a local clinic.

You are called into a treatment room where a 45-year-old patient (approximate weight 60 kg, height 165 cm) is lying on a couch and has suddenly felt unwell. The patient has a venous catheter inserted due to a diagnostic procedure. There is an emergency medical kit in the room. The nurse is unable to provide you with assistance because she is reassuring a relative accompanying the patient. Important! Voice your actions as much as possible, as if someone were next to you.
a colleague was there.

State of the simulated patient (simulator robot):

SpO2	88%
NPV	30
Auscultation of the lungs	Dry wheezing, stridor
Heart rate radial, carotid arteries	110
HELL	80/40
Heart sounds	Clear frequent
ECG	Sinus tachycardia 110 bpm
Capillary filling	4 sec
Stomach	No special features
Pulsation in the femoral arteries	Weak filling
Pupils	Norm
Photoreaction	Direct, friendly reaction to light
Skin	Red hot skin

Text For voiceovers :

When trying to assess consciousness, give an introduction	**Opens eyes, there is chest excursion**
Answer any questions	**With a groan**
When attempting to examine the oropharynx, give the following introduction:	**The airways are swollen and noisy breathing is heard.**
After connecting the pulse oximeter, give introductory:	**Saturation 88%, pulse on the device 110**
After attempting to measure respiratory rate, give input 10 seconds after request	**5 movements in 10 seconds (if possible, count yourself)**
When attempting to percuss the cell , give an introductory	**Tympanitis**
When attempting to auscultate the cell , give an introductory	**Dry wheezing sounds over the entire surface of the lungs, stridor**
When trying to assess the position of the trachea and neck vein, give an introductory	**Trachea is normal, neck veins sunken**
When trying to assess the pulse on the peripheral or central arteries **on one side** give input after 10 seconds from request	**18 hits in 10 sec, weak filling**
When trying to assess the pulse on the peripheral or central arteries **on the other side**	**The pulse is the same on both sides**
After attaching the cuff and inflating the tonometer bulb, give an introductory	**80/40**
When attempting to auscultate the heart, give an introductory	**Heart sounds are clear**
After squeezing the patient's fingertip and asking about the capillary filling time, give the injection after 5-7 seconds.	**White spot symptom disappears after 4 seconds**
When trying to assess the condition of the skin by palpating the patient's hands and/or forehead and/or cheeks and/or ankles	**The skin is red and hot in all areas.**

When trying to assess the size, symmetry and reaction of the pupils to light, give an introductory	**Pupils are normal, friendly reaction narrowing to light**
When trying to use a glucometer, give an introduction	**4 mmol /l**
When trying to bend and straighten the leg(s), arm(s), give an input	**Muscle tone is normal**
When examining the back, give an introductory	**No visible injuries or bleeding were detected.**
When examining the finger after rectal research give an introduction	**There is fecal matter on the glove without any special features**
When examining the popliteal region and shins, give introductory information	**Varicose veins were not detected**
On palpation shins and dorsum of the patient's feet	**No edema detected**
When palpating the abdomen, give an introductory note	**The abdomen is unremarkable**
When palpating the pulse on the femoral arteries, give an introductory	**Frequent, weak filling**

The most important events

Situation	Events
Anaphylactic shock	1. Adrenaline 0.5 mg intramuscularly without dilution 2. NaCl solution 0.5-1 liter - jet intravenously 3. Calling the resuscitation team **After the patient has been stabilized** 4. Chlorpyramine 10 mg IV slowly - diluted to 10 ml 0.9% NaCl (or 10 mg IM without dilution) 5. Hydrocortisone 200 mg IV slowly - diluted to 10 ml 0.9% NaCl (or 200 mg IM, diluted to 5 ml 0.9% NaCl) or Prednisolone 1.5-2.0 mg/kg body weight **Acceptable:** 6. Salbutamol 5 mg inhalation , 7. Ipratropium 0.5 mg via nebulizer, 8. intravenous drip administration of norepinephrine solution (8 mg diluted in 500 ml of 0.9% NaCl solution)

Checklist " ANAPHYLACTIC SHOCK "

No.	Action	Mark
1.	**I made sure that there was no danger to myself or the victim**	
2.	**Assessed consciousness**	
3.	**Called for helpers**	
4.	**Put on gloves**	
5.	**Correctly assessed the airway patency**	
6.	**Correctly and fully assessed the respiratory function**	
	pulse oximetry	
	auscultation	
	percussion	
	NPV	
	trachea	
	neck veins	

7.	**Ensured the correct position of the patient (in accordance with his condition)**	
8.	**Conducted oxygen therapy correctly**	
9.	**Assessed the cardiovascular system**	
	peripheral pulse	
	HELL	
	auscultation of the heart	
	white spot symptom	
	skin color	
10.	**ECG - diagnostics**	
.	correct placement of electrodes	
	correct interpretation of ECG	
11.	**Correctly and fully assessed the neurological status**	
	pupillary response to light	
	glucometry and its interpretation	
	muscle tone assessment	
12.	**Correctly and fully assessed the general condition indicators**	
	abdominal palpation	
	palpation of the pulse on the femoral arteries	
	back examination	
	shins and feet	
	body temperature measurement (by touch)	
	rectal examination	
13.	**Correctly called for help from specialists (EMS)**	
	named his position	
	location (address)	
	age and gender of the patient	
	preliminary diagnosis	
	vital functions	
	volume of assistance provided	
14	**An ambulance was called only after receiving information about the patient's condition.**	
15	**Emergency measures**	
	Adrenaline solution 0.1% - 0.5 i/m	
	Infusion Sol.NaCl 0.9% - 500.0-1000.0 ml	
	Calling the resuscitation team	
16	**Apovt - A repeat examination of the airway patency was performed**	
17	**Repeat - A repeat pulmonary function test was performed**	
18	**Spovt - A repeat examination of the cardiovascular system was performed**	
19	**Drep - A repeat examination of the neurological status was performed**	
20	**Epovt - A re-examination of general condition indicators was conducted**	
21	**The ABCDE inspection sequence was not violated**	
22	**The priority of drug administration was not violated**	
23	**No non-indicated medications were used (ammonia, etc.)**	
24	**Did not perform other unregulated and unsafe actions**	

25	**The doctor commented on his actions out loud (applied a skill that ensured teamwork)**	
26	**Subjective favorable impression of the expert**	

4.3 List of practical skills that a student should have after mastering the discipline

1. Conduct an examination of a patient in critical condition using the " ABCDE " algorithm.
2. Assess the degree of impaired consciousness using the Glasgow Coma Scale and the AVPU scale .
3. Conduct indirect massage hearts .
4. Conduct differential diagnostics of hypoglycemic and hyperglycemic coma.
5. Conduct glucometry .
6. Provide general emergency medical care to a patient in critical condition.
7. Restore the patency of the upper respiratory tract using various instrumental and non-instrumental methods.
8. Perform artificial ventilation using the mouth-to-mouth method, using an AMBU-type bag through a face mask.
9. Perform basic and advanced cardiopulmonary resuscitation using an AED.
10. Conduct respiratory therapy (oxygen therapy).
11. Define symptoms shock .
12. Determine the type of shock and its severity.
13. Determine indications and perform emergency infusion therapy.
14. Conduct emergency care measures for ACS complicated by cardiogenic shock.
15. Conduct emergency care measures for ACS complicated by pulmonary edema.
16. Conduct differential diagnostics of ischemic and hemorrhagic strokes.
17. Provide emergency medical care for stroke at the pre-hospital stage.
18. Provide first aid for anaphylactic shock at the pre-hospital stage.
19. Provide assistance in case of hemorrhagic shock at the pre-hospital stage.
20. Restore airway patency in case of obstruction by a foreign body.
21. Provide first aid for broncho-obstructive syndrome at the pre-hospital stage.
22. Provide emergency medical care for pulmonary embolism and spontaneous pneumothorax at the pre-hospital stage.
23. Perform pleural puncture in case of tension pneumothorax.
24. Provide first medical aid for hypoglycemic and hyperglycemic coma at the pre-hospital stage.

4.4 List of questions for the test

1. Algorithm for examining a patient in critical condition " ABCDE ".
2. Main disorders of vital functions related to breathing (apnea, pathological rhythms). Disturbances in airway patency.
3. Disorders of the respiratory system revealed during objective examination (percussion, palpation).
4. The main disorders of vital functions from the circulatory system (collapse, shock, cardiac and vascular failure).
5. Main disorders of vital functions from the side of consciousness (delirium, stupor, coma).
6. Methods of restoring airway patency.
7. Diagnostics shock states .
8. General measures for providing emergency medical care (patient position, oxygen therapy, infusion therapy)
9. Sudden circulatory arrest - definition, clinical signs.
10. Stages of dying of an organism – characteristics and duration of each stage.
11. Cardiopulmonary resuscitation complex – main periods, goals.
12. Primary resuscitation complex is a sequence of actions at the stage of elementary life support.
13. Methods of restoring airway patency.

14. Methods of artificial ventilation during CPR.
15. ECG rhythms of sudden circulatory arrest.
16. Methodology use of AND.
17. Signs of effective resuscitation, indications for termination of resuscitation.
18. Acute coronary syndrome - classification, morphological cause, clinical presentation, laboratory diagnostics. Main directions therapy .
19. Principles of emergency medical care for ACS and its complications (cardiogenic shock, pulmonary edema).
20. Etiology , pathogenesis classification of stroke.
21. Causes of hemorrhagic stroke. Main clinical manifestations. Diagnostics .
22. Causes of ischemic stroke. Main clinical manifestations. Diagnostics . 23. First aid at the pre-hospital stage for hemorrhagic stroke
24. First aid at the pre-hospital stage for ischemic stroke.
25. Tactics of antihypertensive therapy for stroke at the prehospital stage.
26. Shock - definition, clinical signs, types, hemodynamic profiles.
27. Anaphylactic and anaphylactoid reactions – main differences, causes, clinical manifestations.
28. Variants of anaphylactic shock depending on clinical manifestations.
29. Algorithm for providing first medical aid for anaphylactic shock at the pre-hospital stage.
30. Types of hypovolemic shock. Main indicators of the severity of hypovolemic shock.
31. Internal bleeding. Diagnostics. First aid at the pre-hospital stage.
32. Determination of the volume of blood loss - clinical, laboratory. Classification of blood loss of the American College of Surgeons.
33. Infusion therapy for blood loss – blood replacement scheme – qualitative and quantitative composition of infusion therapy.
34. Respiratory insufficiency - definition .
35. Respiratory failure - main directions of therapy. Oxygen therapy - indications , means delivery .
36. Signs of the onset of exacerbation of bronchial asthma. Degrees of severity of exacerbation of bronchial asthma.
37. Treatment of severe exacerbation of asthma at the outpatient stage.
38. Emergency care for life-threatening exacerbation of bronchial asthma at the pre-hospital stage.
39. Emergency care for foreign bodies in the upper respiratory tract, asphyxia, laryngeal stenosis, and severe exacerbation of bronchial asthma.
40. Methods of restoring airway patency.
41. Heimlich maneuver . Indications. Method of implementation in patients of different age groups.
42. Etiology, pathogenesis, clinical manifestations, diagnosis of pulmonary embolism.
43. Etiology, pathogenesis, clinical manifestations, diagnosis of spontaneous pneumothorax.
44. Pleural puncture. Indications, contraindications. Technique of execution.
45. Etiology, pathogenesis, classification of complications of diabetes mellitus.
46. Risk factors for complications of diabetes .
47. Differential diagnosis of hypoglycemic and hyperglycemic coma .
48. First aid at the pre-hospital stage for hypoglycemic and hyperglycemic coma.

APPROVED
at a meeting of the Department of Anesthesiology and Resuscitation,
intensive care and emergency medical care
Protocol No. 9 of 04/13/2026
Head of Department S.V. Khodus

ADDITIONS AND CHANGES TO THE EDUCATIONAL PROGRAM FOR DISCIPLINES "EMERGENCY CONDITIONS IN THE PRACTICE OF A DISTRICT PHYSICIAN"
SPECIALTY: 31.05.01 GENERAL MEDICINE
FOR THE 2026–2027 ACADEMIC YEAR

The tables in section 3.5. "Licensed and freely distributed software used in the educational process", " Professional databases, information and reference systems, electronic educational resources " shall be set out as follows:

List of software (commercial software products)

No. p/p	List of software (commercial software products)	Details of supporting documents
1.	MS operating system Windows 7 Pro	License number 48381779
2.	MS operating system Windows 10 Pro	CONTRACT No. UT-368 from September 21, 2021
3 .	MS Office	License numbers: 43234783, 67810502, 67580703, 64399692, 62795141, 61350919
4.	Kaspersky Endpoint Security for Business - Standard Russian Edition . 50-99 Node 1-year Educational Renewal License	Agreement No. 7 AA dated 02/07/2025
5.	1C Accounting and 1C Salary	LICENSE AGREEMENT 612/L dated 02.02.2022 (additional licenses)
6.	1C: PROF University	LICENSE AGREEMENT No. KrTsB-004537 dated December 19, 2023
7.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated November 11, 2020
8.	Consultant Plus	Contract No. 41AA dated December 27, 2024
9.	Kontur.Tolk	Agreement No. K213753/24 dated August 13, 2024
10.	3KL e-learning environment (Russian Moodle)	Agreement No. 1362.5 dated November 20, 2024
11.	Astra Linux Common Edition	Agreement No. 142 A dated September 21, 2021
12.	Information system "Plans"	Agreement No. 2873-24 dated June 28, 2024
13.	1C: Document Management	Agreement No. 2191 dated 10/15/2020
14.	R7-Office	Agreement No. 2 KS dated 12/18/2020
15.	License for the "ROSA CHROME OS Workstation"	Agreement No. 88A dated 08/22/2024
16.	Alt Virtualization Server 10 (for secondary and higher vocational education)	Agreement No. 14AK dated September 27, 2024

17.	Dr.Web Desktop Security Suite Comprehensive Protection + Control Center for 12 months.	Agreement No. 8 dated October 21, 2024
18.	Software "Schedule for educational institutions"	Agreement No. 82A dated July 30, 2024

List of freely distributed software

No. p/p	List of freely distributed software	Links to the license agreement
1.	Yandex Browser	Freely distributed License Agreement for the Use of Yandex Browser Software https://yandex.ru/legal/browser_agreement/
2.	Yandex.Telemost	Freely distributed License Agreement for the Use of Software https://yandex.ru/legal/telemost_mobile_agreement/
3.	Dr.Web CureIt !	Freely distributed License Agreement: https://st.drweb.com/static/new-www/files/license_CureIt_ru.pdf
4.	OpenOffice	Freely distributed License: http://www.gnu.org/copyleft/lesser.html
5.	LibreOffice	Freely distributed License: https://ru.libreoffice.org/about-us/license/
6.	VK Calls	Freely distributed https://vk.com/licence
7.	Kaspersky Free Antivirus	Freely distributed https://products.s.kaspersky-labs.com/homeuser/Kaspersky4Win2021/21.16.6.467/english-0.207.0/3830343439337c44454c7c4e554c4c/kis_eula_en-in.txt

Professional databases, information and reference systems, electronic educational resources

Resource name	Resource Description	Access	Resource address
Electronic library systems			
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.	Remote access after registration under the university profile	https://www.studentlibrary.ru/
Reference and information system " MedBaseGeotar ".	The MedBaseGeotar reference and information system is designed for practicing medical specialists, researchers, teachers, postgraduate students, residents, senior students, and healthcare managers to quickly search, select, and read the medical	Remote access after registration under the university profile	https://mbasegeotar.ru/pages/index.html

	literature they need for their work in a single data source.		
Electronic Library System " Bookup "	A large medical library is an information and educational platform for the shared use of electronic educational and methodological publications from medical universities in Russia and the CIS countries.	Remote access after registration under the university profile	https://www.books-up.ru/
Electronic Block System "Lan"	The Network Electronic Library of Medical Universities is an electronic database of educational and scientific works on medical topics, created for the purpose of implementing network forms of professional educational programs, open access to educational materials for partner universities.	Remote access after registration under the university profile	https://e.lanbook.com/
Scientific electronic library " CyberLeninka "	CyberLeninka is a scientific electronic library built on the Open Science paradigm. Its primary goals are the popularization of science and scientific activity, public oversight of the quality of scientific publications, the development of interdisciplinary research, a modern institution of scientific review, increasing the citation rate of Russian science, and building a knowledge infrastructure. It contains over 2.3 million scientific articles.	free access	https://cyberleninka.ru/
Human Biology Knowledge Base	Reference information on physiology , cell biology , genetics , biochemistry , immunology , pathology . (Resource of the Institute of Molecular Genetics of the Russian Academy of Sciences .)	free access	http://humbio.ru/
State Register of Medicines	The State Register of Medicines website contains	free access	https://grls.rosminzdrav.ru/GRLS.aspx

	information about medications: indications, contraindications, mechanism of action, side effects, dosages, and methods of administration.		
Information systems			
Clinical Guidelines Index	A resource of the Russian Ministry of Health that contains clinical guidelines developed and approved by medical professional non-profit organizations of the Russian Federation, as well as methodological manuals, nomenclatures, and other reference materials.	Link to download the application	https://cr.minzdrav.gov.ru/#!/
Federal Electronic Medical Library (FEMB)	The Federal Electronic Medical Library is part of the unified state information system in the field of healthcare as a reference system **. The FEMB was created on the basis of the funds of the Central Scientific Medical Library named after I.M. Sechenov.**	free access	https://femb.ru/
Russian State Library (RSL)	**Collection size:** approximately 3 million titles **Period covered:** from the 11th century to the present The Russian State Library's Electronic Library is a collection of electronic copies of valuable and frequently requested publications from the Russian State Library's collections, from external sources, as well as documents originally created in electronic form.	Registration on the website	https://www.rsl.ru/
Russian Medical Association	A professional online resource. Purpose: to promote effective professional activity among medical personnel. Contains	free access	http://www.rmass.ru/

	the charter, personnel, structure, membership rules, and information about the Russian Medical Union.		
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.	free access	http: //webmed.irkutsk.ru/
Databases			
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.	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.	free access	http://www.minobrnauki.gov.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.	free access	https://edu.gov.ru/
Polpred.com	Electronic library system Business media. Media review	free access	https://polpred.com/news
Bibliographic databases			
Database "Russian Medicine"	Created at the Central Scientific and Methodological Library, it covers the entire collection	free access	https://rucml.ru/

	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.		
PubMed	A text database of medical and biological publications in English. PubMed is an electronic search engine with free access to 30 million publications from 4,800 indexed medical journals. The database contains articles published from 1960 to the present, including information from MEDLINE, PreMEDLINE , and NLM. Each year, the portal is updated with more than 500,000 new papers.	free access	https :// pubmed . ncbi . nlm . nih . gov /
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.	Full functionality of the site is available after registration.	http://elibrary.ru/defaultx.asp
Electronic library of dissertations (RSL)	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	free access	http://diss.rsl.ru/?menu=disscatalog/

Medline.ru	Medical and biological portal for specialists. Biomedical journal.	free access	https://journal.scbmt.ru/jour/index
Official Internet portal of legal information	The single official state information and legal resource in Russia	free access	http://pravo.gov.ru/