

**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

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

 Rector of the FSBEI HE Amur SMA of the
Ministry of Health of the Russian Federation



I.V Zhukovets

EDUCATIONAL PROGRAM

disciplines «Hospital Surgery, Pediatric Surgery»

Specialty: 31.05.01 General Medicine

Course: 5-6

Semester: 9, 10, 11

Total hours: 360 hrs.

Total credits: 10 credit units

Control form: examination, 11 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).

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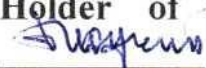
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Protocol No. 12 dated April 15, 2025


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Conclusion of the Expert Commission on the review of the Educational Programs:
Protocol No. 2 dated April 16, 2025

Expert of the expert commission,
Holder of an Advanced Doctorate in Medical Sciences, Professor  A.A. Blotskiy

APPROVED at the meeting of the CMC No. 1:
Protocol No. 7 dated April 16, 2025

Chairman of the CMC No. 4
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AGREED: Dean of the Medical Faculty,
Ph.D. of Medical Sciences, Associate Professor  N.G. Brash

April 17, 2025

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1. INTRODUCTORY NOTE

1.1. Brief characteristics of the discipline.

The discipline "Hospital Surgery, Pediatric Surgery" corresponds to the curriculum for specialist training, approved by the decision of the Academic Council.

1.2. Aims and objectives of the discipline.

AIM of mastering the academic discipline "Hospital Surgery, Pediatric Surgery" is to train a highly qualified physician with knowledge of modern problems in pediatric surgery and surgical diseases in adults, features of the clinical presentation of surgical diseases in children and adults, as well as the principles of diagnosis, treatment and prevention of surgical diseases in childhood and adulthood, possessing certain knowledge in the field of surgical diseases, taking into account further training and professional activities in the specialty "General Medicine".

OBJECTIVES of the discipline are:

1. To familiarize with the pathogenesis, etiology and preventive measures of the most common surgical diseases.
2. To teach modern methods of clinical, laboratory and instrumental examination of patients.
3. To teach how to determine indications and methods of treatment for patients with surgical pathology of the cardiovascular system, diseases of the abdominal and thoracic organs.
4. To familiarize with deontological aspects in surgery.
5. To teach recognition of symptoms and syndromes of surgical diseases in childhood, determination of the severity of the disease.
6. To teach students the choice of optimal examination methods for surgical diseases and the compilation of a differential diagnosis algorithm.
7. To teach the full scope of therapeutic, rehabilitation and preventive measures among pediatric patients with various surgical diseases.
8. To teach students to provide first medical aid to surgical patients in emergency situations.
9. To familiarize with the skills of studying scientific literature and official statistical reviews.

1.3. 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, the discipline "Hospital Surgery, Pediatric Surgery" belongs to the basic part, block 1, and is taught in the V-VI years of the Faculty of General Medicine.

The work program in hospital surgery and pediatric surgery identifies two main modules - surgical diseases of adults (IX and X semesters) and pediatric surgery (XI semester). The identified modules in the studied discipline are considered in the V and VI years. In the V year, IX - X semesters - the module of hospital surgery. In the VI year, XI semester - the module of pediatric surgery.

1.4. Requirements for students.

The following knowledge, skills and abilities formed by preceding disciplines are required to study this discipline:

<i>Mathematical, Natural Science Disciplines</i>	
<ul style="list-style-type: none"> • Physics, Mathematics • Medical Informatics • Chemistry • Biochemistry • Biology • Anatomy • Topographic Anatomy and Operative Surgery • Histology, Embryology, Cytology • Normal Physiology • Microbiology, Virology • Immunology • Pharmacology • Pathological Anatomy, Clinical Pathological Anatomy • Pathophysiology, Clinical Pathophysiology 	<p>Knowledge:</p> <ul style="list-style-type: none"> – Mathematical methods for solving intellectual problems and their application in medicine; – Safety regulations; – Basic laws of physics, physical phenomena and patterns underlying processes occurring in the human body; – Physical principles of the functioning of medical equipment, device and purpose of medical equipment; – Physical and chemical essence of processes occurring in a living organism at the molecular, cellular, tissue and organ levels; – Electrolyte balance of the human body, colligative properties of solutions (diffusion, osmosis, osmolarity, osmolality); – Classification and main characteristics of medicinal products, pharmacodynamics and pharmacokinetics, indications and contraindications for the use of medicinal products, side effects; – Basic patterns of development and vital activity of the organism based on the structural organization of cells, tissues and organs; – Anatomical, physiological, age, sex and individual characteristics of the structure and development of a healthy and diseased organism; – Concepts of etiology, pathogenesis, morphogenesis, pathomorphosis of disease, nosology, principles of disease classification, basic concepts of general nosology; – Functional systems of the human body, their regulation and self-regulation when interacting with the external environment in health and disease; – Theoretical foundations of informatics, collection, storage, search, processing, transformation, distribution of information in medical and biological systems, use of information computer systems in medicine and healthcare.

	<p>Skills:</p> <ul style="list-style-type: none"> – Use educational, scientific, popular science literature, the Internet for professional activities; – Use physical, chemical and biological equipment; – Use various dosage forms in the treatment of certain pathological conditions, based on their characteristics; assess possible manifestations of drug overdose and methods for their elimination; – Interpret the results of the most common methods of functional diagnostics used to identify pathology of the blood, heart and blood vessels, lungs, kidneys, liver and other systems; – Determine and evaluate the results of electrocardiography, spirometry, thermometry; hematological parameters; distinguish normal values of metabolite levels in blood serum (glucose, urea, bilirubin, uric acid, lactic and pyruvic acids, etc.) from pathologically altered ones, read a proteinogram and explain the reasons for differences; – Justify the principles of pathogenetic therapy of the most common diseases. <p>Proficiency:</p> <ul style="list-style-type: none"> – Medical and anatomical conceptual apparatus; – Skills in making a preliminary diagnosis based on the results of laboratory and instrumental examination; – Prescribing medicinal products for the treatment, rehabilitation and prevention of various diseases and pathological conditions; – Basics of medical diagnostic and therapeutic measures for providing first medical aid in emergency and life-threatening conditions; – Skills in using medicinal products for the treatment, rehabilitation and prevention of various diseases and pathological conditions.
<i>Professional Disciplines</i>	

<ul style="list-style-type: none"> ✓ Anesthesiology, Resuscitation, Intensive Care and Emergency Medical Services ✓ Propaedeutics of Internal Diseases ✓ Hospital Therapy ✓ Hygiene ✓ Clinical Pharmacology ✓ Radiation Diagnostics ✓ Neurology, Neurosurgery ✓ Outpatient Therapy ✓ Pediatrics ✓ Infectious Diseases ✓ Traumatology and Orthopedics ✓ Endocrinology ✓ Faculty Therapy ✓ Surgery, Urology 	<p>Knowledge:</p> <ul style="list-style-type: none"> – Fundamentals of the legislation of the Russian Federation on the protection of public health, basic regulatory and technical documents. – Basic principles of management and organization of medical care for surgical patients. – Social insurance and social security, fundamentals of the organization of insurance medicine in the Russian Federation. – Organization of medical monitoring of the health status of the population, issues of disability examination and medico-legal assistance to the population. – Methodology for calculating medical statistics indicators; basics of applying the statistical method in medical research, using statistical indicators to assess the health status of the population and the activities of medical organizations. – Maintenance of standard medical records and reporting documentation in medical organizations. – Population health indicators (morbidity, complications of diseases), factors shaping human health. – Fundamentals of preventive medicine, basics of preventive measures aimed at strengthening public health. Methods of sanitary and educational work. – Etiology, pathogenesis, modern classification of surgical diseases and preventive measures for the most common surgical diseases. – Clinical picture, features of the course and possible complications of the most common surgical diseases and complications, occurring in a typical form in various age groups of patients. – Diagnostic methods, diagnostic capabilities of direct examination methods for surgical patients, modern methods of clinical, laboratory, instrumental examination of patients (including endoscopic, radiological methods, ultrasound diagnostics). – Basics of organizing medical (outpatient and inpatient) care for surgical patients, principles of dispensary observation and rehabilitation of patients. – Diagnostic criteria for various surgical diseases. – Clinical manifestations of the main surgical syndromes. – Methods and techniques for preventing postoperative complications. – Clinical symptoms of injuries to the abdominal cavity, pelvic cavity, methodology for determining the area of the burned surface; features of applying bandages in burn disease and cold injury. – Features of organizing work with HIV-infected surgical patients. – Clinical and pharmacological characteristics of the main groups of drugs and rational choice of specific drugs in the treatment of the main pathological syndromes of diseases and emergency conditions in surgical patients.
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- Duties, rights, place of the doctor in society; moral and ethical norms, rules and principles of professional medical behavior, rights of the patient and doctor, ethical foundations of modern medical legislation.
- Principles of dispensary observation of various age, sex and social groups of the population, rehabilitation of patients.

Skills:

- Plan, analyze and evaluate the quality of medical care, the health status of the population, and the influence of environmental and occupational factors on it.
- Determine the status of a patient with surgical pathology: take a history, perform a physical examination of the patient (inspection, palpation, auscultation, blood pressure measurement, etc.); assess the condition to decide on the need for medical care.
- Establish priorities for solving patient health problems: critical (terminal) condition, condition with pain syndrome, condition with a chronic disease, condition with an infectious disease, geriatric problems.
- Outline the scope of additional investigations in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result.
- Formulate a clinical diagnosis.
- Select an individual type of care for the treatment of a patient with surgical pathology according to the situation: primary care, emergency care, hospitalization.
- Develop a plan of surgical actions, taking into account the course of the disease and its treatment.
- Formulate indications for the chosen method of treatment, taking into account etiologic and pathogenetic agents, justify pharmacotherapy in a particular patient for 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.
- Use methods of primary and secondary prevention in therapeutic activities (based on evidence-based medicine), establish cause-and-effect relationships between changes in health status and the impact of environmental factors.
- Fill out a medical history, write a prescription.
- Interpret examination results, make a preliminary diagnosis for a child and adolescent, outline the scope of additional investigations to clarify the diagnosis; formulate a clinical diagnosis.
- Plan, analyze and evaluate the quality of medical care, the health status of the population and the influence of environmental and occupational factors on it; participate in the organization and provision of therapeutic, preventive and sanitary-anti-epidemic care to the population, taking into account its socio-professional (including professional sports) and age-sex structure; perform preventive, hygienic and anti-epidemic measures.

	<p>Proficiency:</p> <ul style="list-style-type: none"> - Correct maintenance of medical documentation. - Methods of general clinical examination of patients with surgical pathology. - Interpretation of results of laboratory and instrumental diagnostic methods. - Algorithm for a detailed clinical diagnosis in surgery. - Algorithm for making a preliminary diagnosis with subsequent referral of patients to the appropriate specialist doctor. - Basic medical, diagnostic and therapeutic measures for providing first medical aid in emergency and life-threatening conditions. - Skills in presenting an independent point of view, analysis and logical thinking, public speaking. - Principles of medical deontology and medical ethics. - Interpretation of results of laboratory and instrumental diagnostic methods.
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1.5. Interdisciplinary connections with subsequent disciplines.

№ п/п	Name of subsequent disciplines	Hospital Surgery	Pediatric Surgery
1.	Clinical Pharmacology	+	+
2.	Phthiology	+	+
3.	Hospital Therapy	+	+
4.	Oncology, Radiation Therapy	+	+

5.	Anesthesiology, Resuscitation, Intensive Therapy and Emergency Care	+	+
6.	Traumatology, Orthopedics	+	+
7.	Outpatient Therapy	+	+

1.6. Requirements for the results of mastering the discipline

The study of the discipline is aimed at the formation/improvement of the following competencies: universal (UC), general professional (GPC) and professional (PC): UC-1,6; GPC-4,5,7,10,11; PC-1,2,3,4,5,11,12.

№ п/п	Code and Name of Competence	Code and Name of Competence Achievement Indicator
Universal Competencies		
1	UC-1. Able to carry out a critical analysis of problem situations based on a systematic approach, develop a strategy for action.	ID UC-1.1. Analyzes a problem situation as a system, identifying its components and the connections between them. ID UC-1.2. Identifies gaps in the information necessary for solving problem situations and designs processes to eliminate them. ID UC-1.3. Applies system analysis to resolve problem situations in the professional sphere.
2	UC-6. Able to determine and implement priorities for their own activities and ways to improve it based on self-assessment and lifelong learning.	ID UC-6.1. Evaluates their personal, situational, and temporal resources and uses them optimally to complete assigned tasks. ID UC-6.3. Carries out critical self-analysis of the results of their own activities.
General Professional Competencies		
3	GPC-4. Able to use medical devices provided for by the procedure for rendering medical care, as well as to conduct examinations of the patient in order to establish a diagnosis.	ID GPC-4.1. Uses modern medical technologies, specialized equipment and medical devices, disinfectants, medicinal products, including immunobiological and other substances and their combinations when solving professional tasks from the standpoint of evidence-based medicine. ID GPC-4.3. Interprets the results of the most common methods of instrumental, laboratory and functional diagnostics, thermometry to identify pathological processes. ID GPC-4.4. Possesses methods of general clinical examination of patients of different ages. ID GPC-4.5. Formulates a preliminary diagnosis and clinical diagnosis according to the ICD.
4	GPC-5. Able to assess morphofunctional, physiological states and pathological processes in the human body to solve professional tasks.	ID GPC-5.1. Knows the functional systems of the human body, their regulation and self-regulation when interacting with the external environment in health and pathological processes. ID GPC-5.2. Knows the etiology, pathogenesis, morphogenesis, pathomorphosis of disease development, basic concepts of nosology. ID GPC-5.3. Knows the indicators of the morphofunctional, physiological state of a healthy person and is able to measure/determine them. ID GPC-5.4. Applies indicators of morphofunctional, physiological state and pathological process for examining the human body in order to establish a diagnosis, prescribe treatment and monitor its effectiveness and safety.

		<p>ID GPC-5.5. Analyzes and interprets macroscopic and microscopic changes in normal and pathologically altered tissues and organs.</p> <p>ID GPC-5.6. Interprets the results of studies of biopsy and operative material to solve professional tasks and formulate a diagnosis according to the ICD.</p>	
5	<p>GPC-7. Able to prescribe treatment and monitor its effectiveness and safety.</p>	<p>ID GPC-7.1. Makes a choice of a medicinal product based on the totality of its pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological forms in outpatient and inpatient settings.</p> <p>ID GPC-7.2. Selects the optimal minimum of the most effective means, using convenient methods of their application.</p> <p>ID GPC-7.4. Writes prescriptions for medicinal products for the treatment of diseases and correction of pathological conditions, based on the characteristics of the pharmacokinetics and pharmacodynamics of the drugs.</p> <p>ID GPC-7.5. Takes into account morphofunctional features, physiological states and pathological processes in the human body when choosing over-the-counter drugs and other pharmacy assortment goods.</p> <p>ID GPC-7.6. Analyzes the results of possible interactions of medicinal products when various drugs are used in combination.</p> <p>ID GPC-7.7. Evaluates the effectiveness and safety of drug therapy based on a combination of clinical, laboratory, instrumental and other diagnostic methods.</p>	
6	<p>GPC-10. Able to solve standard tasks of professional activity using information, bibliographic resources, biomedical terminology, information and communication technologies, taking into account the basic requirements of information security.</p>	<p>ID GPC-10.2. Carries out an effective search for information necessary for solving professional tasks, using legal reference systems and professional pharmaceutical databases.</p> <p>ID GPC-10.3. Applies specialized software for mathematical processing of observational and experimental data when solving tasks in professional activities.</p>	
7	<p>GPC-11. Able to prepare and apply scientific, scientific-production, project, organizational-managerial and regulatory documentation in the healthcare system.</p>	<p>ID GPC-11.1. Applies modern methods of collecting and processing information, conducts statistical analysis of the obtained data in the professional field and interprets the results to solve professional tasks.</p> <p>ID GPC-11.2. Identifies and analyzes problem situations, searches for and selects scientific, regulatory and organizational-administrative documentation in accordance with set goals.</p> <p>ID GPC-11.4. Conducts scientific and practical research, analyzes information using the historical method and prepares publications based on research results.</p>	
Professional Competencies			
№ п/п	Labor Functions	Code and Name of Professional Competence	Code and Name of Competence Achievement Indicator

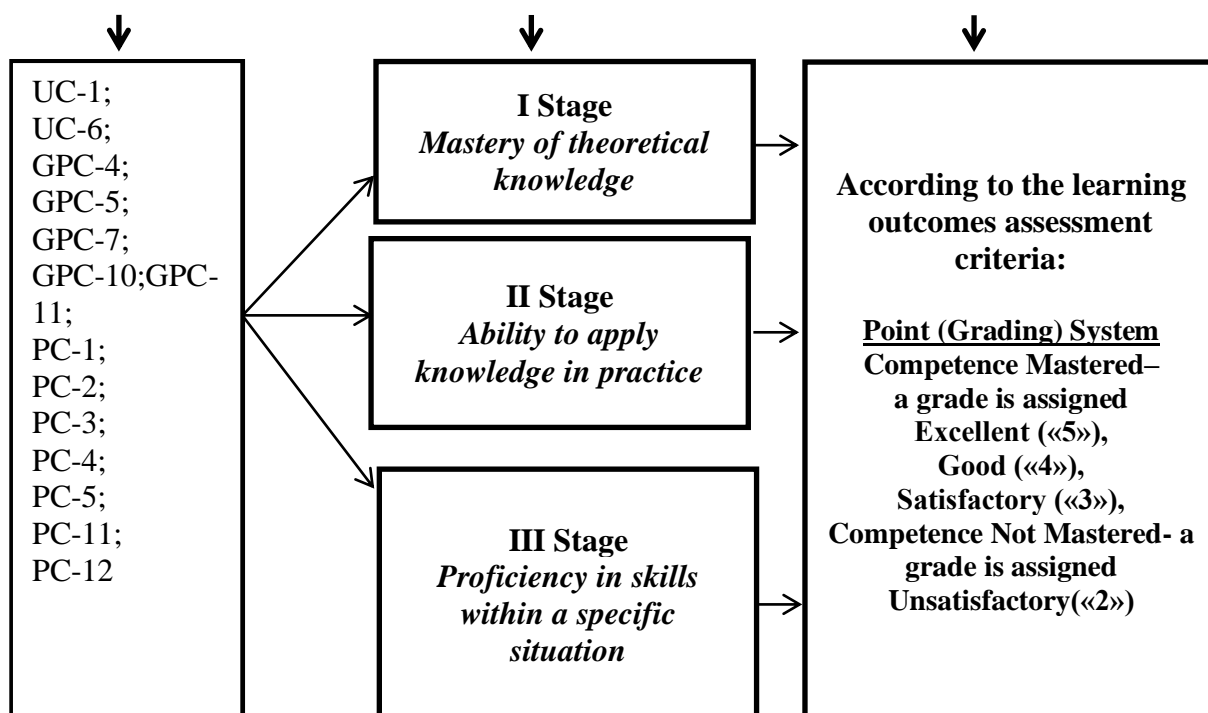
8	A/01.7 Diagnosis of diseases and/or conditions in the profile "Therapy"	<p>PC-1. Ability to collect and analyze patient complaints, life history, medical history in order to establish a diagnosis and/or condition in the profile "Therapy"</p> <p>PC-2. Ability to conduct a physical examination of the patient, analyze the results of additional examination methods in order to establish a diagnosis and/or condition in the profile "Therapy".</p>	<p>ID PC-1.1. Collect complaints, medical history, life history from a patient with a disease and/or condition in the profile "Therapy" (or their legal representative).</p> <p>ID PC-1.2. Interpret and analyze information received from a patient with a disease and/or condition in the profile "Therapy" (or their legal representative).</p> <p>ID PC-2.1. Conduct a physical examination of the patient (inspection, palpation, percussion, auscultation) and interpret its results.</p> <p>ID PC-2.2. Justify the necessity and scope of laboratory and instrumental examinations of a patient with a disease and/or condition in the profile "Therapy".</p> <p>ID PC-2.3. Perform diagnostic manipulations and interpret the obtained results:</p> <ul style="list-style-type: none"> - Measurement of blood pressure on peripheral arteries; - Blood glucose level testing 24-hour ambulatory blood pressure monitoring (ABPM) - Pulse oximetry - Reading spirograms - Determination of the ankle-brachial index - Performing an orthostatic test - Pneumotachometry - Taking and interpreting an electrocardiogram <p>ID PC-2.4. Interpret the results of laboratory and instrumental examinations of patients.</p> <p>ID PC-2.5. Justify the referral of a patient with a disease and/or condition in the profile "Therapy" to specialist doctors in the presence of medical indications, taking into account contraindications in accordance with the Procedures for Rendering Medical Care, clinical recommendations, taking into account medical care standards.</p> <p>ID PC-2.6. Interpret conclusions received from specialist doctors.</p>
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		<p>PC-3. Ability to determine medical indications for hospitalization, indications for [providing emergency, including specialized emergency, medical care]</p>	<p>ID PC-2.7. Assess the severity of the disease and/or condition of a patient with a disease in the profile "Therapy". ID PC-2.8. Establish a diagnosis taking into account the ICD for a patient with a disease and/or condition in the profile "Therapy". ID PC-2.9. Conduct differential diagnosis of diseases and/or conditions in the profile "Therapy", using diagnostic algorithms (main, concomitant and complications) taking into account the ICD.</p> <p>ID PC-3.1. Determine medical indications for providing emergency, including specialized emergency, medical care. ID PC-3.2. Determine medical indications for referring a patient for medical care in inpatient settings or day hospital settings providing specialized medical care in the profile "Therapy" in case of diagnostic difficulties and in the absence of the possibility of conducting additional examinations in outpatient settings.</p>
9	<p>A/02.7 Prescribing treatment to patients with diseases and/or conditions in the profile "Therapy" and monitoring its effectiveness and safety</p>	<p>PC-4. Ability to prescribe treatment to patients with diseases and/or conditions in the profile "Therapy"</p>	<p>ID PC-4.1. Compile and justify a treatment plan for a patient with a disease and/or condition in the profile "Therapy" taking into account the diagnosis, patient's age, clinical picture of the disease and/or condition in accordance with the Procedures for Rendering Medical Care, clinical recommendations, taking into account medical care standards. ID PC-4.2. Prescribe medicinal products, medical devices taking into account the clinical picture of the disease and/or condition in the profile "Therapy" and risk factors for its development in accordance with the Procedures for Rendering Medical Care, clinical recommendations, taking into account medical care standards. ID PC-4.3. Prescribe non-drug treatment and therapeutic nutrition for a patient with a disease and/or condition in the</p>

		PC-5. Ability to monitor the effectiveness and safety of the therapy being conducted	<p>profile "Therapy" taking into account the diagnosis, age and clinical picture in accordance with the Procedures for Rendering Medical Care, clinical recommendations, taking into account medical care standards.</p> <p>ID PC-5.1. Analyze the pharmacological action and interaction of medicinal products in a patient with a disease and/or condition in the profile "Therapy".</p> <p>ID PC-5.2. Evaluate the effectiveness and safety of non-drug therapy, therapeutic nutrition, use of medicinal products and medical devices in a patient with a disease and/or condition in the profile "Therapy".</p> <p>ID PC-5.3. Refer the patient in case of difficulties in choosing treatment tactics, as well as in case of a complicated course of the disease and/or condition in the profile "Therapy" for specialized medical care in a hospital or day hospital, in the presence of medical indications in accordance with the Procedures for Rendering Medical Care, clinical recommendations, taking into account medical care standards.</p> <p>ID PC-5.4. Provide medical care using telemedicine technologies.</p>
10	A/07.7 Conducting analysis of medical-statistical information, maintaining medical documentation, organizing the activities of subordinate medical personnel	PC-11. Ability to maintain medical documentation and monitor the quality of its maintenance	<p>ID PC-11.1. Fill out medical documentation, including in the form of an electronic document, control the quality of its maintenance.</p> <p>ID PC-11.2. Use patients' personal data and information constituting medical confidentiality in work.</p> <p>ID PC-11.3. Use medical information systems and the information and telecommunication network "Internet" in professional activities.</p>
11	A/08.7 Providing medical care to patients in emergency and urgent	PC-12. Ability to provide medical care in urgent and emergency forms	ID PC-12.1. Recognize conditions requiring medical care in an emergency form, including clinical signs of

	forms		<p>sudden cessation of circulation and/or respiration, requiring medical care in emergency and urgent forms.</p> <p>ID PC-12.2. Provide medical care in an emergency form to patients in conditions that threaten the patient's life, including clinical death (cessation of vital functions of the human body (circulation and/or respiration)).</p> <p>ID PC-12.3. Use medicinal products and medical devices when providing medical care to patients in emergency and urgent forms.</p> <p>ID PC-12.4. Perform basic cardiopulmonary resuscitation measures.</p>
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1.7. Stages of competence formation and description of assessment scales



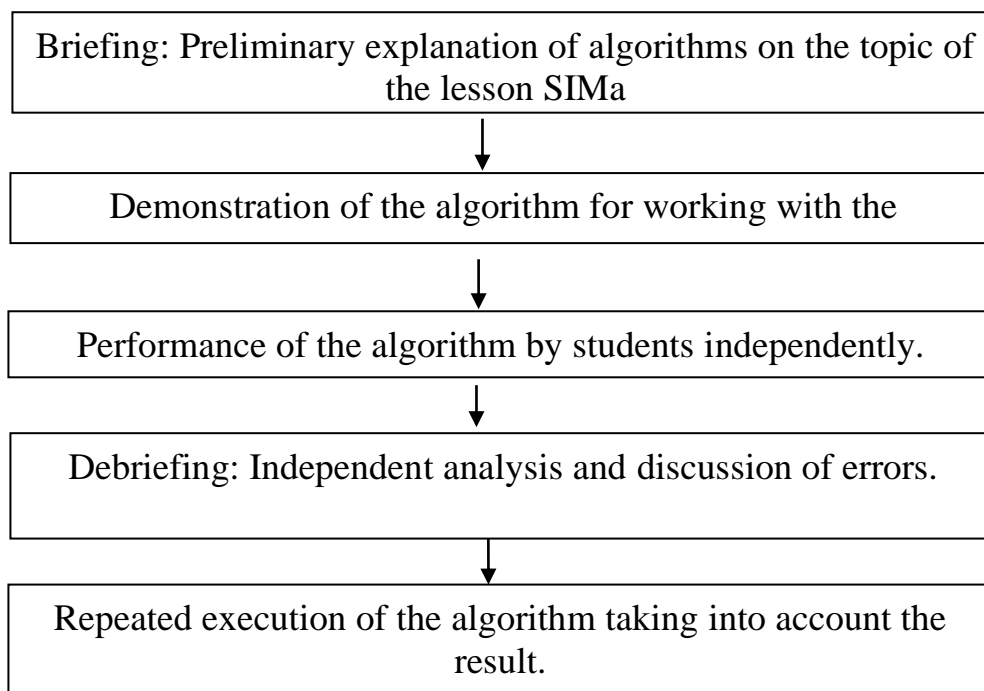
1.8. Forms of organization of training and types of control

Training consists of classroom sessions (252 hours), including a lecture course (60 hours) and clinical practical classes (156 hours); independent work (108 hours).

Practical classes are conducted at the Department of Hospital Surgery with a course in Pediatric Surgery at the base of the State Autonomous Healthcare Institution of the Amur Region "Amur Regional Clinical Hospital" (module of Hospital Surgery) and the State Autonomous Healthcare Institution of the Amur Region "Amur Regional Children's Clinical Hospital" (module of Pediatric Surgery) in the form of clinical practical classes, patient curation in specialized departments, and interview-discussions (debriefing). Students are required to attend morning surgical conferences. Subsequently, they participate in rounds with the curator of the specialized surgical department, as well as in diagnostic and therapeutic manipulations in the intensive care unit, operating rooms, procedure rooms, and dressing rooms. Upon completion of the module, students must defend a case history of a specialized surgical patient and also receive a pass (a grade of at least satisfactory) on the objective examination of a specialized surgical patient (bedside exam). Subsequently, the grade obtained from the patient examination (propaedeutics of surgical diseases) is used in the student's assessment during the final exam.

The practical lesson on the topic "Chest Trauma" is conducted in the accreditation and simulation center in the form of simulations, interactive simulation (according to the algorithm presented in Fig. 1), practicing practical skills for performing pleurocentesis and pleural puncture on simulators and mannekins, and interview-discussions (debriefing).

Algorithm for working in the accreditation and simulation center



Types of knowledge control in the discipline:

1. Current progress control includes entry and initial control. Entry control involves testing in the Moodle system before the start of the first lesson to assess knowledge gained from previous disciplines. Initial control involves testing in the Moodle system on the eve of the lesson on the topic being studied. Exit control is conducted at each clinical practical lesson in the form of a frontal survey on the topic of the lesson and solving situational tasks..

Milestone control is conducted at the final lesson upon completion of the module. It includes remote solving of 100 test tasks, defense of a medical history with demonstration of practical skills "at the patient's bedside", oral questioning on questions and tasks.

2. Intermediate control. At the end of the XI semester of the 6th year, students are assessed in the exam in the discipline "Hospital Surgery, Pediatric Surgery".

Test control is conducted remotely in the Moodle system: <https://educ-amursma.ru/course/view.php?id=636>

2. STRUCTURE AND CONTENT OF THE DISCIPLINE

2.1. Scope of the discipline and types of educational activities

Types of educational work	Total hours	Semesters		
		IX	X	XI
Lectures	60	20	20	20
Clinical practical classes	156	52	52	52
Independent work of students	108	36	36	36
Exam	36			36
Total workload in hours	360	108	108	144
Total workload in credit units	10	3	3	4

2.2. Thematic plan of lectures and their brief content

№ п/п	Lecture Topics	Codes of Formed Competencies	Workload (hours)
1	<p><i>Diaphragmatic Hernias</i> Anatomical and physiological concepts of "weak" spots of the diaphragm. Classification of hiatal hernias, hernias of Bochdalek, Morgagni-Larrey. Clinical presentation of hiatal hernias, post-traumatic diaphragmatic hernias, differential diagnosis with diaphragmatic relaxation. Diagnostic methods, indications for surgery, nature of surgery. The role of videolaparoscopic surgery in the diagnosis and treatment of diaphragmatic hernias. Prognosis, recurrences, causes, prevention.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
2	<p><i>Non-Ulcerative Gastrointestinal Bleeding</i> Overview of the most common diseases of the gastrointestinal tract (excluding peptic ulcer disease) complicated by bleeding. The role of modern diagnostic methods for bleeding, techniques of endoscopic hemostasis, indications and contraindications for surgical intervention, types of operations.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
3	<p><i>Non-Specific Inflammatory Bowel Diseases (Ulcerative Colitis, Diverticulitis, Ischemic Colitis, Crohn's Disease)</i> Clinical characteristics of intestinal diseases previously unfamiliar to the student - ulcerative colitis, Crohn's disease, ischemic colitis, diverticulosis. Modern schemes of conservative treatment of inflammatory bowel diseases. Special attention is paid to complications requiring surgical intervention.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
4	<p><i>Complications of Gastroduodenal Ulcers, Main Modern Trends in Surgical Treatment</i> The variety of clinical manifestations of complications of gastroduodenal ulcers, depending on many factors (nature of the ulcer, gender, age, etc.), excluding ulcer bleeding. Modern concepts of tactical diagnostic schemes and their treatment, depending in turn on the variety of clinical manifestations of these complications, their timing, and the capabilities of the clinic.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2

5	<p><i>Complications of Calculous Cholecystitis, Diagnosis, Choice of Treatment</i></p> <p>Possible clinical manifestations of various complications of calculous cholecystitis, diagnostic scheme using modern equipment. Treatment tactics for complicated cholecystitis. Special attention is paid to minimally invasive methods of surgical treatment.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
6	<p><i>Acute Pancreatitis, Choice of Treatment Tactics, Immediate and Long-Term Complications</i></p> <p>Different variants of the course of acute pancreatitis. A number of clinical and laboratory parameters playing a role in the choice of tactics are defined. A complete understanding of modern schemes - variants of tactics choice and the reasons determining it is given. Clinical presentation of early and late complications of various forms of pancreatitis, determination of tactics, the importance of instrumental diagnostic and treatment techniques. Prevention of complications.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
7	<p><i>Peritonitis, Diagnosis of Acute Abdomen at the Polyclinic Stage, Treatment Problems, Ways to Eliminate Them</i></p> <p>The problem of treating peritonitis remains very acute, with a sufficient number of reasons for this, primarily errors in early diagnosis, inadequate comprehensive treatment. Special attention is paid to methods of diagnosis, differential diagnosis at the polyclinic stage. Significant role is given to early diagnostic methods, comprehensive treatment, from laparoscopic methods to open management, determination of indications for various treatment methods, combating possible complications.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
8	<p><i>Mechanical Jaundice</i></p> <p>Jaundices of various origins, the place occupied by obstructive jaundice among them, methods of its diagnosis and treatment. A complete understanding of the variants of the clinical course of obstructive jaundice is given. The main causes determining it (tumors of the hepatobiliary zone, choledocholithiasis), differential diagnosis, treatment methods, the role of decompressive methods, instrumental methods, prognosis, complications.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
9	<p><i>Precancerous Conditions, Modern Principles of Treatment of Colorectal Cancer</i></p> <p>Issues of treatment of precancerous diseases, colon cancer. Modern directions in methods of early detection of precancerous conditions are outlined, including developments of the Amur Proctology Center, comprehensive treatment of colon cancer, in surgical treatment - development and implementation of the most rehabilitative and oncologically justified surgical interventions, including those developed by the Amur Proctology Center. The role of dispensary observation of this group of patients is shown.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11;	2

		PK-12	
10	<i>Differential Diagnosis of Diseases of the Rectum, Pararectal Tissue, Their Treatment</i> Clinical manifestations of the most characteristic diseases of the rectum, pararectal tissue (hemorrhoids, paraproctitis, anal fissure, etc.), differential diagnosis for these diseases. Knowledge of the basics of differential diagnosis is absolutely necessary for such frequently occurring diseases of the rectum, pararectal tissue and other diseases of the pelvic cavity and outside it, not related to the competence of a coloproctologist.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
11	<i>Congenital Heart Defects</i> Anatomical and functional characteristics of the heart. Frequency of congenital heart defects, etiology. Types of congenital heart defects. Importance of history, physical examination. Patent ductus arteriosus, general information, hemodynamics, clinical manifestations, physical examinations, cardiac catheterization. Surgical treatment, alternative - endoscopic clipping of the duct. Coarctation of the aorta, indications for surgery, methods. Atrial septal defects, classification, indications for surgery. Tetralogy of Fallot - pathogenesis, clinic, surgical treatment. Cardiopulmonary bypass, apparatus, components.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
12	<i>Acquired Heart Defects</i> Clinic, diagnosis, surgical treatment. Frequency of diseases. Aortic valve defects. Aortic stenosis, clinical manifestations, research methods, treatment - indications for surgery. Aortic insufficiency etiology, clinic, research methods. Mitral stenosis, main cause, pathogenesis, choice of surgical method. Mitral insufficiency, clinical presentation, indications for surgery. Tricuspid valve defects, pulmonary artery, combined heart defects. Clinical presentation, diagnosis, treatment.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
13	<i>Ischemic Heart Disease</i> Physical examination methods in cardiology, manifestation of pathological changes in heart activity caused by ischemic heart disease and its complications. Indications for surgical treatment and main methods of surgical correction. Ischemic heart disease, risk factors. Angina pectoris - types, diagnosis, surgical treatment, indications, types of operative procedures. Prognosis, dispensary observation.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
14	<i>Acute and Chronic Occlusive Arterial Diseases</i> Anatomical and functional characteristics of the aorta, arterial systems of humans. Main manifestations of arterial diseases, risk factors. Research methods for diseases of the aorta and arteries. Occlusive diseases of the aorta and its branches - Leriche's syndrome, nonspecific aortoarteritis - Takayasu's disease. Chronic occlusive diseases of the lower extremities. Classification of chronic ischemia. Indications for surgery,	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-	2

	types of operative procedures. Acute occlusion of lower extremity arteries, causes, classifications, tactics, occlusive lesions of the branches of the aortic arch, causes, symptomatology. Indications for surgical treatment. Prognosis, dispensary observation.	4; PK-5; PK-11; PK-12	
15	<i>Chronic Venous Insufficiency. Post-Thrombophlebitic Syndrome (PTFS)</i> Definition of the disease, frequency, main causes, clinical manifestations, diagnostic methods. Physical examination methods in angiology, examination technique for venous pathology, building a diagnosis, special research methods, treatment tactics. Methods of prevention, treatment.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
16	<i>Diseases of the Aorta and Its Branches, Aneurysms</i> Modern understanding of the most common diseases of the aorta, clinical manifestations of various forms and localizations of aortic aneurysms. Clinical forms of obliterating diseases (Takayasu syndrome, Leriche syndrome, Buerger's disease), their manifestations, differential diagnosis, complications. Modern state of the issue of diagnosis, treatment. Aneurysms of the thoracic and abdominal aorta, their clinical manifestations, pathogenesis, complications, diagnosis, treatment.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
17	<i>Deep Vein Thrombosis. Pulmonary Embolism (PE), Tactics of a Polyclinic Physician</i> The most characteristic complications of varicose veins of the lower extremities, their causes, diagnosis, treatment, prevention. A complete understanding of varicose veins as one of the causes of thrombophlebitis, its forms and types. Methods of differential diagnosis, choice of treatment method. Development of subsequent complications: PTFS, its manifestations, treatment. Thrombophlebitis as one of the causes of PE, methods of general and special prevention, methods of treatment of various forms of PE.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
18	<i>Diseases of the Mediastinum. Pericarditis. Mediastinitis</i> Clinical manifestations of the most common diseases of the mediastinum, various forms of pericarditis. A complete clinical understanding of chronic, acute, tumor diseases of the mediastinum is given. Modern methods of diagnosis, treatment, indications for operative treatment methods, operative approaches, possible treatment outcomes are determined.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
19	<i>Surgical Treatment of Thyroid Diseases</i> Anatomical and functional information about the thyroid gland. Classification of diseases. Research methods in patients. Thyroid dysfunctions requiring surgical intervention: diffuse toxic goiter (Graves'	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10;	2

	disease), clinic, diagnosis, indications for surgery, preoperative preparation, purpose and nature of the operation, complications after surgery, their correction. Nodular toxic goiter (Plummer's disease), clinic, differential diagnosis - Hashimoto's thyroiditis, Riedel's struma, thyroid tumors. Prognosis, rehabilitation, dispensary observation.	OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	
20	<i>Esophageal Diseases</i> Anatomical and functional information about the esophagus. Classification of diseases. Research methods in patients. Neuromuscular diseases of the esophagus - achalasia cardia, cardiospasm, Barsony-Teschendorf disease: clinic, diagnosis, indications for surgery, preoperative preparation, purpose and nature of the operation, complications after surgery, their correction. Esophageal diverticula - classification, clinic, diagnosis, treatment. Esophageal injuries - esophageal burns.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
21	<i>History of the Discipline Development. Organization of Surgical Services Abroad, in Russia, Amur Region. Features of Pediatric Surgery. Hernias of the Anterior Abdominal Wall in Children</i> The necessity of distinguishing the specialty "pediatric surgery". Moscow and St. Petersburg schools of pediatric surgeons. Organization of pediatric surgical care in the Amur Region. Predominance of congenital diseases, embryopathies and fetopathies. Teratogenesis. Role of heredity. Anatomical and physiological features of the growing organism. Tendency to generalized and hyperergic reactions, uniqueness of metabolic processes. Anatomical and physiological features of the neonatal period. Examination of children with surgical diseases. Role of history. Methodology and technique of examination. Additional research methods: examination during sleep, examination with relaxants. Special research methods: esophagoscopy, bronchoscopy, bronchography, puncture biopsy, angiography, etc. Relative and absolute indications and contraindications for surgical treatment. The importance of preventive examinations of children for detecting surgical diseases - inguinal hernia, hydrocele, cryptorchidism, varicocele, etc. Features of organizing surgical care for newborns and infants with malformations, purulent diseases, birth injuries. Transportation, organization of wards, departments. Deontology in pediatric surgery.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
22	<i>Features of the Course of Acute Appendicitis in Childhood. Peritonitis in Children.</i> Etiopathogenesis. Clinic, diagnosis. Features of clinical manifestations in young children. Difficulties and features of diagnosis - comparative "dosed" palpation, the role of chloral hydrate enema, fluorothane anesthesia and examination of the child during sleep, the "repulsion" symptom. Rectal examination. Features of differential diagnosis with pneumonia, infectious diseases, ENT diseases, intussusception (in younger children), coprostasis, gastroenteritis, genital malformations, etc. (in older children). Surgical treatment. Advantages of the ligature method of appendectomy in children. Indications for the immersion method. Appendicular infiltrate. Clinic of uncomplicated and complicated infiltrate. Tactics for various types of infiltrate - conservative and surgical treatment, indications, timing. Features of surgical	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2

	intervention. Appendicular abscess. Clinic. Dependence of surgical tactics on the localization of the abscess and the possibility of removing the appendix. The importance of health education work among the population and organization of care at the stages of medical support.		
23	<p><i>Acquired Intestinal Obstruction in Children.</i></p> <p>Intussusception. Etiopathogenesis. Types of intussusception. Clinic. Diagnosis. X-ray diagnosis. Technique of air insufflation of the large intestine. Indications and contraindications for conservative reduction of intussusception. Tactics for repeated intussusceptions. Difficulties and features of diagnosing small intestinal intussusception. Indications for surgical treatment. Disinvagination operation. Strangulation ileus. Role of congenital anomaly - Meckel's diverticulum, mesenteric defects. Postoperative obstruction. Clinic, diagnosis. X-ray diagnosis. Surgical treatment. Obstructive obstruction. Coprostasis - role of malformations of the large intestine. Helminthic obstruction. Clinic, diagnosis, importance of history. X-ray findings. Indications for surgical treatment. Methods of surgical treatment. Dynamic obstruction. Causes of dynamic obstruction - prematurity, intracranial birth trauma, sepsis, pneumonia, gastrointestinal diseases, surgical intervention. Clinic, diagnosis. Differential diagnosis of dynamic and mechanical ileus. Conservative treatment - novocaine blockade, hypertonic cocktails, siphon enema, ganglioblockers, epidural anesthesia, HBO therapy.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
24	<p><i>Surgical Lung Diseases in Children.</i></p> <p>Anatomical and physiological features of the structure of the lungs in children. General signs characterizing destructive pneumonias. Signs of respiratory failure and its degree. Special research methods: X-ray, X-ray tomography, bronchoscopy, bronchography, angiopulmonography, bronchial catheterization, thoracoscopy, cytological and bacteriological methods. Classification. Intrapulmonary complications: infiltrate, lobitis, abscesses, bullae. Their diagnosis, treatment methods. Pulmonary-pleural complications: pyothorax, pyopneumothorax, pneumothorax, bleeding. Their clinical symptomatology. X-ray diagnosis. Pleural puncture, indications, drainage technique. Types of drainage - with passive and active aspiration. Drainage timing. Indications for radical surgical intervention for purulent pleurisy, principles of operative interventions. Surgical tactics depending on age and form of pleural lesion. Comprehensive conservative treatment - antibiotic therapy, immunotherapy, symptomatic drug therapy. Transition of acute pneumonia to chronic.</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
25	<p><i>Acute and Chronic Hematogenous Osteomyelitis.</i></p> <p>Acute hematogenous osteomyelitis. Etiology. Features of blood supply to bones in children, the role of this factor in the localization and spread of the process. Osteomyelitis in older children. Stages of the disease. Acute stage. General and local manifestations. Forms of acute osteomyelitis - toxic, septicopyemic, local. X-ray diagnosis. Principles of osteomyelitis treatment. Local treatment. Chronic stage. Clinic. X-ray diagnosis. Principles of operative treatment. Complications of chronic osteomyelitis. Metaphyseal</p>	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11;	2

	osteomyelitis as a specific form of the disease in young children. Features of the course - damage to the growth zone. Involvement of joints in the process. Radiological signs. Time of appearance of radiological signs in newborns. Features of surgical treatment - caution during manipulations near the epiphysis, undesirability of arthrotomies. Features and timing of immobilization. Complications. Prevention and treatment of complications. The role of dispensary observation of patients after epiphyseal osteomyelitis. Arthritis in children. Etiology. Features of clinical manifestations in newborns and older children, typical localization - knee, ankle, hip joints. Features of clinical, laboratory and X-ray diagnosis. Treatment, rehabilitation.	PK-12	
26	<i>Purulent-Inflammatory Diseases of Newborns.</i> Features of the course of purulent-septic diseases in children - reduced ability to form antibodies, predominance of the general reaction of the body over local manifestations, tendency to generalization of the process. Features of the course of staphylococcal infection - suppression of the reticuloendothelial system; tendency to intoxication; sensitization and autosensitization; severity of demarcation; tendency to septicopyemia; resistance to antibiotics. Staphylococcal sepsis and its surgical complications. Principles of treatment of purulent infection. Impact on the macroorganism - detoxification, desensitization, active and passive immunization, stimulation. Impact on the microorganism - Rational antibiotic therapy under constant control of antibiograms, use of sulfonamides, change of antibiotics. Impact on the focus. Importance of determining microflora and its sensitivity to antibiotics. Importance of passive and active immunization and stimulation of the body. Desensitizing therapy. The necessity of preventive immunization of pregnant women to prevent purulent infection in newborns. Phlegmon of newborns: Features of the course - predominance of the necrotic process over the inflammatory, rapid spread. Most frequent localization. Clinical manifestations, stages of the disease: acute - with increasing intoxication and exicosis, subacute - beginning of rejection of necrotic tissue, stage of sepsis - with necrotic phlegmon. Dependence of the severity of the disease on the timing of admission to the surgical hospital and the start of surgical treatment. Principles of treatment: local - incisions, general - use of broad-spectrum antibiotics, restorative treatment, immunizing therapy, physiotherapy. Omphalitis: Clinical manifestations, forms of the disease - simple, phlegmonous, necrotic. Differential diagnosis with infected congenital umbilical fistulas. Complications - umbilical sepsis, peritonitis. Treatment of omphalitis and its complications. Mastitis of newborns: Clinical manifestations. Complications. Surgical treatment. Consequences of neglected cases of mastitis.	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12	2
27	<i>Congenital Anomalies of the Anterior Abdominal Wall in Children.</i> Congenital underdevelopment of the abdominal muscles. Clinical manifestations. Combined anomalies. Prune-Belly syndrome. Diagnosis, emergency care. Conservative therapy. Principles of surgical treatment. Indications for urgent surgical intervention. Umbilical hernia. Anatomical prerequisites for their	UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1;	2

	<p>occurrence. Clinical manifestations. Diagnosis. Medical tactics - importance of strengthening the abdominal wall (massage, exercise therapy). Indications for surgical treatment. Inguinal hernia. Importance of impaired obliteration of the vaginal process of the peritoneum in the formation of inguinal hernias in children. Types of hernias. Clinic. Diagnosis, differential diagnosis. Timing of operative treatment. Principles of herniotomy in the age aspect. Incarcerated inguinal hernia. Clinic, diagnosis and differential diagnosis, Medical tactics, indications for conservative treatment. Features of operative technique for incarcerated inguinal hernia. Hydrocele and hydrocele of the spermatic cord. Age frequency of the disease. Importance of impaired obliteration of the vaginal process of the peritoneum. Clinic, diagnosis, treatment methods. Principles and timing of operative treatment. Cyst of the spermatic cord - rapidly occurring, acutely occurring. Diagnosis, differential diagnosis. Indications for operative treatment. Anomalies of the vitelline duct - congenital umbilical fistulas. Meckel's diverticulum. Clinic, diagnosis. Complications - diverticulitis, bleeding, evagination, intestinal obstruction. Feature of surgical treatment depending on the anatomical variant of the developmental anomaly. Timing of surgical intervention. Non-closure of the urachus. Clinic, diagnosis, treatment. Timing of surgical intervention.</p>	<p>PK-2; PK-3; PK-4; PK-5; PK-11; PK-12</p>	
28	<p><i>Congenital Anomalies of the Gastrointestinal Tract in Children.</i> Data on embryology and formation of the intestinal tube, intestinal rotation. Causes of malformations. Classification. Detailed focus on malformations of the esophagus, in particular atresia. Early diagnosis and treatment. Congenital intestinal obstruction. Etiopathogenesis. Impaired development of the intestinal tube - atresia, internal stenosis; anomaly of intestinal rotation - Ladd's syndrome, midgut volvulus, internal hernias, etc., external stenosis - annular pancreas, aberrant vessel; meconium ileus. Classification of congenital obstruction: by localization (high, low), by clinical course (acute, chronic, recurrent). Features of clinic and diagnosis depending on the form of obstruction. X-ray diagnosis. Survey and contrast methods of examination. Complications - perforation, peritonitis, intestinal necrosis. Medical and surgical tactics for different forms of obstruction. Methods of operative intervention. Duplication of the digestive tract. Forms of duplication. Localization. Clinical manifestations. Diagnostic methods. Indications for operative intervention. Types of operations.</p>	<p>UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12</p>	2
29	<p><i>Diseases of the Colon and Rectum in Children.</i> Hirschsprung's disease. Etiology. Pathogenesis. Clinic. Features of clinical manifestations in newborns and infants. Diagnosis. X-ray diagnosis. Complications - fecal impaction, intoxication. Medical and surgical tactics. Technique of siphon enemas. Indications for colostomy. Methods of radical operations. Megadolichocolon. Clinic and diagnosis. X-ray diagnosis. Features of patient care. Indications for operative treatment. Principles of operative treatment. Anomalies of the anorectal region. Fistulous and non-fistulous forms. Clinical manifestations. Diagnosis. X-ray diagnosis. Age indications and principles of surgical treatment.</p>	<p>UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12</p>	2

30	<p>Pediatric Urology.</p> <p>Semiotics of diseases of the urinary system. Main forms of malformations of the urinary system. Concept of obstructive uropathies, their classification. Indications for urological examination. Methodology of examination of urological patients (clinical, laboratory, radiological, instrumental methods; modern methods - ultrasound, radioisotope - their diagnostic capabilities). Frequency of kidney anomalies. Uni- and bilateral aplasia, kidney duplication, cross dystopia, kidney fusion, cystic kidney diseases. Anomalies of the pelvises and ureters. Congenital hydronephrosis. Causes, clinical manifestations, diagnosis. Importance of modern research methods in the diagnosis of hydronephrosis. Surgical treatment. Organ-preserving operations as the method of choice for surgical treatment of congenital hydronephrosis in children. Duplication of pelvises and ureters, ureterocele, ectopic ureter, megaureter. Diagnosis and surgical treatment. Vesicoureteral reflux, causes of its occurrence and methods of surgical treatment. Anomalies of the urinary bladder - diverticulum of the urinary bladder, obstruction of the bladder neck, congenital atony of the urinary bladder. Bladder exstrophy, diagnosis and methods of surgical treatment. Age indications for operative treatment - plastic surgery with local tissues, transplantation of ureters into an isolated rectum.</p>	<p>UK-1; UK-6; OPK-4; OPK-5; OPK-7; OPK-10; OPK-11; PK-1; PK-2; PK-3; PK-4; PK-5; PK-11; PK-12</p>	2
Total Hours			60

2.3. Thematic Plan of Clinical Practical Classes and Their Content

№ п/	Name of Practical Classes	Content of Practical Classes / Clinical Practical Classes	Codes of Forming Competencies and Indicators of Their Achievement	Types of Control	Workload (hours)
1.	Diaphragmatic Hernias	<p>Entrance examination</p> <p>Theoretical part:</p> <p>Classification of hiatal hernias. Clinical course of various types of hiatal hernias. Clinical manifestations of post-traumatic diaphragmatic hernias. Clinical manifestations of rare hernias - Bojdalek,</p>	<p>UK-1: ID 1.1., 1.2., 1.3</p> <p>UK-6: ID 6.1., 6.3.</p> <p>OPK-4: ID 4.1, 4.3, 4.4, 4.5</p> <p>OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6</p> <p>OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7</p>	<p>Testing in Moodle system, frontal survey, practical skills on patient curation</p>	5,2

		<p>Morgani-Larrey. Methods of examination for diaphragmatic hernias. Manifestations of hernia complications: esophagitis, strangulation, bleeding. Indications for surgery for diaphragmatic hernias, short esophagus, and their nature. Conservative treatment of patients with hiatal hernias.</p> <p>Practical part: Take a focused medical history. Correctly interpret the results of additional examination methods. Formulate a diagnosis. Draw up an examination plan for diaphragmatic hernia. Predict the course of the disease. Perform gastric probing. Draw up a plan for managing patients after surgery for diaphragmatic hernia.</p>	<p>OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>		
2.	Esophageal Diseases	<p>Theoretical part: Clinical manifestations of esophageal achalasia, esophageal diverticula, and esophageal trauma. Classification of these diseases. Research methods used for these diseases. Tactics and methods of treatment. Complications of diseases and treatment tactics. Features of postoperative management.</p> <p>Practical part: Correctly interpret clinical and instrumental examination methods. Formulate a well-reasoned diagnosis. Justify the indications for additional examination methods. Determine the examination plan for a patient with esophageal achalasia, diverticulum, or</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		injury. Determine the indications for surgical treatment for these diseases.	PK-12: ID 12.1, 12.2, 12.3, 12.4		
3.	Purulent Diseases of the Lungs and Pleura, Mediastinum .	<p>Theoretical part: Etiology, pathogenesis, development of purulent processes in the lungs and pleura. Classification of purulent diseases of the lungs and pleura. Clinical picture of pleural empyema, lung abscesses, lung gangrene. Main methods of diagnosis of purulent diseases of the lungs and pleura. Principles of treatment of purulent diseases of the lungs and pleura. Treatment regimen for patients who have undergone surgery for purulent diseases of the lungs and pleura. Classification of mediastinal diseases. Clinical manifestations of mediastinal cysts, tumor formations, inflammatory processes. Possible complications of the above diseases. Principles of treatment of mediastinal diseases.</p> <p>Practical part: Formulate a diagnosis for purulent lesions of the lungs and pleura. Assess the severity of the patient's condition. Interpret the results of diagnostic measures. Puncture the pleural cavity. Assemble a system for draining the pleural cavity according to Bellau. Assemble a set of instruments for thoracocentesis. Assess the function of the chest organs after surgical interventions on them. Formulate a detailed diagnosis for mediastinal diseases. Perform differential diagnosis of mediastinal diseases and other</p>	UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		diseases of the chest and outside it. Determine the indications for surgical treatment for the most common mediastinal diseases.			
4.	Choosing a Method of Surgical Treatment of Peptic Ulcer Disease and Its Complications	<p>Theoretical part: Clinical features of complications of gastroduodenal ulcers in young and elderly patients. Atypical forms of perforated gastric and duodenal ulcers. Differential diagnosis of complicated ulcers and other diseases of the abdominal cavity and beyond.</p> <p>Practical part: Determine the extent of use of additional examination methods in each specific case, if a complicated gastroduodenal ulcer is suspected. Correctly and comprehensively formulate a diagnosis in the presence of complications of gastroduodenal ulcers. Prepare patients for emergency surgery in the presence of a complicated ulcer (scope of emergency procedures, insertion of a stomach tube, administration of an enema, assessment of the patient's condition, venipuncture). Prepare a set of instruments for emergency laparotomy.</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2
5.	Symptomatic Ulcers. Postgastroctomy Disorders	<p>Theoretical part: Classification of symptomatic ulcers, etiopathogenesis. Treatment tactics. Classification of diseases of the operated stomach. Modern ideas about the pathogenesis of diseases of the operated stomach. Clinical manifestations of diseases of the operated stomach.</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		<p>Prevention of diseases of the operated stomach. Features of pre- and postoperative management after reconstructive surgery on the stomach. Indications for reconstructive surgery for diseases of the operated stomach.</p> <p>Practical part: Assess clinical and laboratory indications in a patient with diseases of the operated stomach. Correctly formulate the diagnosis. Assess the severity of the patient's condition. Develop a targeted examination plan. Determine the indications for reconstructive surgery on the stomach and duodenum. Schematically illustrate the main surgical procedures for dumping syndrome, peptic ulcer of the anastomosis, and afferent loop syndrome.</p>	<p>OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>		
6.	Focal Liver Lesions. Mechanical Jaundice.	<p>Theoretical part: Types of focal liver lesions. Scope of examination for various forms of focal liver lesions. Diseases with which they must be differentiated. Etiopathogenesis, classification of jaundice, differential diagnosis. Treatment tactics.</p> <p>Practical part: Correctly formulate a diagnosis, determine a treatment plan based on a comprehensive examination, and identify indications for surgical treatment.</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

			PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4		
7.	Gastrointestinal Bleeding	<p>Theoretical part: Etiology, pathogenesis, clinical presentation, diagnosis. Differential diagnosis of bleeding from the upper and lower gastrointestinal tract. First aid at the prehospital stage. Treatment tactics. Indications for surgical treatment. Types and methods of surgical interventions for various types of bleeding.</p> <p>Practical part: Correctly formulate a diagnosis, determine a treatment plan based on a comprehensive examination, and identify indications for surgical treatment. Calculation of the Algoter-Burry shock index. Infusion and haemostatic therapy.</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2
8.	Errors and Dangers in the Diagnosis and Treatment of Acute Appendicitis and Acute Cholecystitis	<p>Theoretical part: Atypical clinical manifestations of acute appendicitis. Features of acute appendicitis in children, the elderly, pregnant women, and those with immunodeficiency. Basics of diagnosis when atypical clinical course of acute appendicitis is suspected. Classification of complications of acute appendicitis. Diagnostic and treatment algorithm for the development of typical complications of acute appendicitis. Clinical manifestations of complications of</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4,</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

	<p>calculous cholecystitis, taking into account the individual characteristics of the patient. The scope of examination methods for a specific patient with complicated cholecystitis, taking into account their individual characteristics. Common errors and their causes in the diagnosis of complicated cholecystitis at the pre-hospital stage, in the hospital, during surgery, and in the postoperative period. Prevention of possible errors in the diagnosis and treatment at the above stages of diagnosis and treatment of patients with complicated calculous cholecystitis.</p> <p>Practical part: Formulate a diagnosis in cases of atypical clinical presentation or complicated appendicitis. Perform differential diagnosis with other acute diseases of the abdominal organs. Determine the indications for additional examination methods and specify them. Assemble a set of instruments necessary for examination using a 'probe catheter.' Assemble a set of instruments for emergency laparotomy. Correctly and comprehensively formulate a diagnosis for complicated calculous cholecystitis. Justify a specific plan for examining patients, taking into account their individual characteristics. Justify a specific scheme for preoperative preparation of patients. Justify the indications for surgery, the choice of its scope and timing in each specific case.</p>	<p>2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>		
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		Manage patients in the postoperative period.			
9.	Principles of Treatment of Acute Pancreatitis and Its Complications.	<p>Theoretical part: Various clinical forms of acute pancreatitis and the choice of treatment tactics in this case. The scope of the study in each specific case for various forms of acute pancreatitis. Clinical syndromes, diseases with which acute pancreatitis must be differentiated. Features of pre- and postoperative management of patients with acute pancreatitis and its complications, taking into account the individual characteristics of patients.</p> <p>Practical part: Correctly formulate a diagnosis for various forms of acute pancreatitis and its complications. Based on physical, laboratory, and instrumental data, determine the extent of gland damage. Prescribe comprehensive therapy for complications of acute pancreatitis. Manage patients both before and after surgery, taking into account individual patient characteristics.</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2
10.	Selected Types of Acute Intestinal Obstruction (AIO). Diagnosis and Treatment of	<p>Theoretical part: Clinical manifestations of certain types of acute coronary syndrome, depending on age and individual characteristics of patients. Selection of diagnostic and therapeutic tactics for various types of acute coronary syndrome. Some features of surgical interventions for certain types of acute coronary syndrome in different</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2.,</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

	Peritonitis.	<p>categories of patients (elderly, young, with relevant pathology, etc.). Principles of rehabilitation programmes for patients who have undergone surgery for acute peritonitis and require rehabilitation. Features of the clinical course of various forms of peritonitis depending on the age of patients, causes, and other conditions. Diagnostic and treatment algorithm for suspected postoperative peritonitis, localized peritonitis (abscess). The scope of diagnostic and therapeutic measures for various forms of peritonitis. Differential diagnosis of acute peritonitis and diseases that stimulate it. Causes of complications in the treatment of peritonitis, their nature, possible ways of elimination and prevention.</p> <p>Practical part: Formulate a detailed diagnosis for various types of acute peritonitis and its complications. Differentiate between different types of acute peritonitis and other diseases of the abdominal and chest cavities. Determine the scope of diagnostic and therapeutic measures, indicate them for various types of acute peritonitis. Assemble a set of instruments for laparotomy in cases of acute intestinal obstruction. Formulate a diagnosis for various forms of peritonitis and its complications. Assess the severity of the patient's condition based on the available data. Assemble a set for examination using</p>	<p>11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>		
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		a 'floating catheter'			
11.	Surgical Treatment of Thyroid Diseases.	<p>Theoretical part: Clinical manifestations of various forms of goitre. Differential diagnosis of thyroid diseases. Selection of surgical treatment methods. Typical complications of thyroid surgery.</p> <p>Practical part: Correctly formulate a diagnosis. Assess the patient's condition, including the postoperative period. Be able to diagnose typical postoperative complications.</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2
12.	Acute and Chronic Occlusive Arterial Lesions	<p>Theoretical part: Clinical classification of chronic occlusive lesions of the aorta and arteries Differential diagnosis of obliterating atherosclerosis, endoarteritis, aortoarteritis, Raynaud's syndrome (disease). Specific forms of the disease: manifestation of Leriche syndrome, Takayasu's disease. Special diagnostic methods and indications for them: rheovasography, ankle-brachial index, Doppler, duplex examination, angiography. Indications for surgical intervention. Minimally invasive treatment methods: arterial dilation, laser</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		<p>recanalisation, rotary dilation. Surgical treatment methods: endarterectomy, aortofemoral bypass, non-anatomical bypass, lumbar sympathectomy, ROT, amputation. Vascular prostheses: biological, synthetic. Patient rehabilitation, medical check-ups, treatment complications.</p> <p>Practical part: Correctly interpret data from clinical and additional examination methods. Formulate a reasoned diagnosis. Draw up a plan for examining the patient. Justify the appropriateness of using additional examination methods. Purposefully apply the functional tests of Oppel, Samuels, and Kazachesku. Determine the indications for surgical treatment methods.</p>	<p>PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>		
13.	Chronic Venous Diseases.	<p>Theoretical part: Classification, pathogenesis of complications of varicose veins and its complications (thrombophlebitis, PTFB, TELA). Their clinical picture. Differential diagnosis of diseases. Scope and methods of examination in each specific case. Indications for conservative therapy and surgical treatment and contraindications. Features and timing of surgical procedures depending on the nature of the complication and individual characteristics of patients. Principles and scope of special and general preventive measures.</p> <p>Practical part: Correctly formulate a diagnosis in the</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		development of complications of varicose veins of the extremities, thrombophlebitis, PTFS, TELA. Interpret data from laboratory, instrumental and other special examination methods. Conduct and evaluate functional tests in patients with diseases of the veins of the lower extremities. Justify treatment tactics based on available physical and additional data. Prepare a set of instruments for varicose vein surgery, explain how to use a Bebok probe. Manage patients both before and after surgery. Make a prognosis for the disease and the patient's work activity.	PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4		
14.	Venous Thrombosis. PE.	<p>Theoretical part: Classification, pathogenesis of thromboembolic venous complications. Their clinical picture. Differential diagnosis of diseases. Indications for conservative therapy and surgical treatment. Principles of intensive care. Principles and scope of special and general preventive measures.</p> <p>Practical part: Correctly formulate a diagnosis. Assess the patient's condition, including data from additional examination methods. Conduct intensive care for various clinical forms of TELA.</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2
15.	Aortic	Theoretical part:	UK-1: ID 1.1., 1.2., 1.3	Testing in Moodle system,	5,2

	Diseases. Surgical Treatment of Ischemic Heart Disease	<p>Methods of surgical treatment of IHD: aortocoronary bypass surgery, intraluminal angioplasty (balloon, rotary dilatation), use of laser therapy. Indications for invasive examination methods for IHD - coronarography, ventriculography. The degree of risk of invasive examination methods. Indications and contraindications for surgical treatment of IHD. Methods of surgical treatment of myocardial complications - ventricular aneurysm, ventricular rupture, interventricular septum, dysfunction or rupture of the mitral valve capillary muscles. Indications for surgical treatment of ventricular aneurysm.</p> <p>Practical part: Assess the severity of a patient's condition with IHD based on physical examination methods. Draw up a plan for examining a patient with IHD. Diagnose the typical course of myocardial infarction. Provide first aid for myocardial infarction. Make a prognosis for a patient who has had a myocardial infarction.</p>	<p>UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	frontal survey, practical skills on patient curation	
16.	Chest Trauma. Simulation Session.	<p>Theoretical part: Classification of chest injuries. Clinical manifestations of various complications of thoracic trauma. Differential diagnosis. Choice of treatment method.</p> <p>Practical part: Demonstration by the student of the algorithm for diagnosis and first aid to a patient in critical condition at the pre-</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2.,</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		hospital and hospital stages with various complications of thoracic trauma. Performing pleural puncture and thoracocentesis on a mannequin.	<p>11.4.</p> <p>PK-1: ID 1.1, 1.2</p> <p>PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9</p> <p>PK-3: ID 3.1, 3.2</p> <p>PK-4: ID 4.1, 4.2, 4.3</p> <p>PK-5: ID 5.1, 5.2, 5.3, 5.4</p> <p>PK-11: ID 11.1, 11.2, 11.3</p> <p>PK-12: ID 12.1, 12.2, 12.3, 12.4</p>		
17.	Inflammatory Diseases of the Colon.	<p>Theoretical part: Etiology and pathogenesis of the most common inflammatory diseases of the colon: ulcerative colitis, Crohn's disease, diverticulitis, ischaemic colitis. Clinical picture of these diseases. Differential diagnosis from diseases of the gastrointestinal tract and outside it. Possible complications of IBD, their clinical manifestations, diagnosis. Tactics for IBD and its complications. Indications for surgical intervention for IBD and its complications. Ways to rehabilitate patients with IBD and its complications.</p> <p>Practical part: Write a detailed diagnosis for IBD and its complications. Analyse the physical, laboratory and instrumental data obtained. Determine the methods of treatment in each specific case of acute appendicitis. Diagnose complications of acute appendicitis requiring emergency surgery. Determine the extent of surgical intervention in each specific case of acute</p>	<p>UK-1: ID 1.1., 1.2., 1.3</p> <p>UK-6: ID 6.1., 6.3.</p> <p>OPK-4: ID 4.1, 4.3, 4.4, 4.5</p> <p>OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6</p> <p>OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7</p> <p>OPK-10: ID 10.2., 10.3</p> <p>OPK-11: ID 11.1., 11.2., 11.4.</p> <p>PK-1: ID 1.1, 1.2</p> <p>PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9</p> <p>PK-3: ID 3.1, 3.2</p> <p>PK-4: ID 4.1, 4.2, 4.3</p> <p>PK-5: ID 5.1, 5.2, 5.3, 5.4</p> <p>PK-11: ID 11.1, 11.2, 11.3</p> <p>PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		appendicitis and its complications.			
18.	Precancerous Conditions of the Colon. Principles of Treatment of Colorectal Cancer	<p>Methods for detecting precancerous diseases of the colon. Obligate and facultative precancerous diseases, tactics for their detection.</p> <p>Practical part: Correctly formulate a clinically detailed diagnosis for precancerous diseases. Perform differential diagnosis of precancerous diseases and other diseases of the colon. Perform examinations: digital rectal examination, examination using a rectal mirror, anoscope, perform rectomanoscopy. Determine the nature of surgical intervention for precancerous conditions of the colon. Assemble a set of instruments for surgery for tumour-induced obstruction.</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2
19.	Differential Diagnosis of Diseases of the Rectum, Pararectal Tissue.	<p>Theoretical part: Principles of differential diagnosis of rectal diseases, tumourigenesis and general proctological diseases. Principles of differential diagnosis of pararectal tissue diseases. Research methods used for differential diagnosis. Features of the course of these diseases depending on the individual characteristics of the patient. Features of the treatment of both general proctological and neoplastic diseases of the rectum depending on the individual characteristics of patients. Preventive measures for diseases of the rectum.</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		<p>Practical part: Formulate a diagnosis for diseases of the rectum and pararectal tissue. Interpret physical, laboratory and instrumental examination methods used for the differential diagnosis of these diseases. Justify a specific treatment plan for patients depending on their individual characteristics. Independently perform incision of superficial purulent formations of the pararectal tissue. Perform the simplest examinations of the rectum and pararectal tissue: digital examination, fistula probe examination, examination with a rectal mirror, rectomanoscopy.</p>	<p>PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>		
20.	Graded Class. Case History Defense.	Demonstration by the student of theoretical knowledge on the topics studied. Defence of a case history with a demonstration of practical skills in objective examination of a patient at the bedside.	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

21.	Acute Appendicitis in Childhood, Complications of Acute Appendicitis. Peritonitis in Children	<p>Theoretical part: Etiology, pathogenesis, clinical picture, diagnosis of acute appendicitis. Features of clinical manifestations in young children. Features of differential diagnosis with pneumonia, infectious diseases, ENT diseases, intussusception (in younger children); coprostasis, gastroenteritis, malformations of the urinary system, genitals, etc. (in older children). Modern research methods - electromyography, laparoscopy. Surgical treatment. Appendicular infiltrate. Clinical presentation of uncomplicated and complicated infiltrate. Tactics for different types of infiltrate. Appendicular abscess. Clinical presentation. Dependence of surgical treatment tactics on the location of the abscess and the possibility of removing the appendix. Peritonitis. Causes of peritonitis in children. Modern classifications of peritonitis - by cause, course, location (primary and secondary, local, diffuse, widespread, etc.). Principles of treatment. Cryptogenic peritonitis. Clinical features.</p> <p>Practical part: Perform comparative 'measured' palpation and examination of the child, rectal examination. Determine the indications for additional examination methods. Summarise the data obtained and make a diagnosis.</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2
22.	Acquired	Theoretical part:	UK-1: ID 1.1., 1.2., 1.3	Testing in Moodle system,	5,2

<p>intestinal obstruction</p>	<p>Classification of acquired intestinal obstruction. Clinical features and diagnosis depending on the form of obstruction. Radiological diagnosis. Overview and contrast examination methods. Complications and their causes. Medical tactics for different forms of intestinal obstruction. Principles of surgical treatment. Intussusception. Etiology. Pathogenesis. Types of intussusception. Clinical presentation. Diagnosis. Radiological diagnosis. Differential diagnosis. Technique for inflating the colon with air. Indications and contraindications for conservative reduction of intussusception. The role of laparoscopy. Difficulties and features of diagnosing small bowel intussusception. Indications for surgical treatment. Desinvagination surgery. Strangulation ileus. The role of congenital anomalies - Meckel's diverticulum, mesenteric defects. Postoperative strangulation obstruction. Clinical presentation. Diagnosis. X-ray diagnosis. Surgical treatment. Obstructive obstruction. Coprostasis - the role of colon malformations (Hirschsprung's disease, congenital stenosis of the anus). Clinical presentation. Diagnosis. X-ray diagnostics. Indications for surgical treatment. Surgical procedure. Dynamic obstruction. Causes of dynamic obstruction. Clinical presentation. Diagnosis. Differential diagnosis of dynamic and mechanical ileus.</p>	<p>UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	<p>frontal survey, practical skills on patient curation</p>	
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		<p>Conservative treatment - novocaine blockade, hypertonic cocktails, siphon enema, ganglion blockers, epidural anaesthesia, HBO therapy.</p> <p>Practical part: conduct a survey, examination of the patient, interpret the data obtained. Determine the indications for additional instrumental examination methods. Determine the tactics for treating the patient.</p>			
23.	Surgical diseases of the lungs in children	<p>Theoretical part: The main symptoms of surgical lung diseases in children. Types of chest organ defects in children; their frequency. Etiology. Pathogenesis. Clinical presentation, diagnosis. Bronchiectasis. Etiology, pathogenesis, pathomorphology. Clinical picture. The role of special examination methods - bronchoscopy, bronchography, angiography, their techniques. Impaired external respiration. The most common types of lesions. Indications for surgery. Preoperative preparation - postural drainage, therapeutic exercise, therapeutic bronchoscopy, general restorative therapy. Types of surgical interventions. Tactics for extensive bilateral bronchiectasis. Complications: atelectasis, lung collapse, bronchial fistulas, pleural empyema. Prevention, treatment. Long-term results of bronchiectasis treatment. Bacterial destruction of the lungs. Complicated</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		<p>forms accompanied by acute respiratory failure - lung abscesses, pyothorax, pneumothorax, pyopneumothorax. Clinical picture. X-ray diagnostics. Puncture, drainage of the pleural cavity - indications, technique. Types of drainage - with passive and active aspiration. Drainage duration. Indications for radical surgery in purulent pleurisy, principles of surgical intervention. Surgical tactics depending on age and form of lesion. Prevention, treatment. Long-term treatment results. Medical examination. Sanatorium-resort treatment.</p> <p>Practical part: questioning and examining the patient, interpreting the data obtained. Determining the indications for additional instrumental examination methods. Determining the tactics for treating the patient.</p>			
24.	Acute and chronic haematogenous osteomyelitis	<p>Theoretical part: Etiology, pathogenesis. Features of blood supply to bones in children, the role of this factor in the localisation and spread of the process. Osteomyelitis in older children. Stages of the disease. Acute stage. General and local manifestations. Forms of acute osteomyelitis - toxic, septic-pyemic, local. X-ray diagnostics. Principles of osteomyelitis treatment. Local treatment. Chronic stage. Clinical presentation. X-ray diagnostics. Principles of surgical treatment. Complications of chronic osteomyelitis. Metaepiphyseal</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		<p>osteomyelitis as a specific form of the disease in young children. Features of the course - damage to the growth zone. Involvement of the joints in the process. Radiological signs. Time of appearance of radiological signs in newborns. Features of surgical treatment - caution when manipulating near the epiphysis, undesirability of arthrotomies. Features and timing of immobilisation. Complications. Prevention and treatment of complications. The role of dispensary observation of patients after epiphyseal osteomyelitis.</p> <p>Practical part: Etiology. Features of clinical manifestations in newborns and older children, typical localization - knee, ankle, hip joints. Features of clinical, laboratory and X-ray diagnostics. Treatment, rehabilitation.</p> <p>After studying the topic, students should be able to: conduct a survey and examination of the patient, interpret the data obtained. Determine the indications for additional instrumental examination methods. Determine the tactics for treating the patient.</p>	<p>PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>		
25.	Purulent-inflammatory diseases in young children and newborns	<p>Theoretical part: Phlegmon in newborns. Features of the course - predominance of the necrotic process over the inflammatory one, rapid spread, characteristics of the pathogen and the action of its toxins. The most typical</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5,</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

	<p>localization is in the sacro-lumbar region and the mammary glands. Clinical manifestations. Laboratory diagnosis (neutropenia, lymphocytosis). Localised infection with toxicosis, generalised infection, assessment of LII. Diagnosis, differential diagnosis with erysipelas, adiponecrosis. Principles of treatment: local - incisions; general - detoxification, antibacterial, immunocorrection. Erysipelas. Characteristics of the pathogen. Typical localisation in newborns and older children. Clinical presentation, diagnosis, laboratory diagnosis (neutrophilia, lymphopenia, monocytopenia). Principles of treatment: local - dressings with antiseptics, UV therapy; general treatment. Mastitis in newborns. Clinical manifestations. Complications. Surgical treatment. Consequences of advanced cases of mastitis. Omphalitis. Classification, diagnosis, complications, treatment. Umbilical fistulas, anomalies of the yolk duct development - congenital umbilical fistulas. Failure of the urachus to close. Clinical presentation, diagnosis, treatment. Timing of surgical intervention. Ulcerative necrotic enterocolitis. Etiology. Pathogenesis. Clinical presentation. Principles of treatment. Paediatrician's approach depending on the stage of the disease. Medical examination. Prevention.</p> <p>Practical part: conduct an examination of the patient,</p>	<p>7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>		
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		interpret the data obtained. Determine the indications for additional instrumental examination methods. Determine the tactics for treating the patient.			
26	Congenital anomalies of the anterior abdominal wall in children	<p>Theoretical part:</p> <p>Umbilical cord hernia. Features of surgical tactics depending on the size of the hernia, the degree of underdevelopment of the abdominal cavity and the premorbid background. Treatment methods - conservative and surgical. Principles of surgical treatment. Conservative therapy techniques. Umbilical hernia. Anatomical prerequisites for their occurrence. Clinical manifestations. Diagnosis. Medical tactics - the importance of strengthening the abdominal wall (massage, exercise therapy). Indications for surgical treatment. Inguinal hernia. The importance of impaired obliteration of the vaginal process of the peritoneum in the formation of inguinal hernias in children. Types of hernias. Clinical presentation. Diagnosis, differential diagnosis. Timing of surgical treatment. Principles of herniotomy in terms of age. Incarcerated inguinal hernia. Clinical presentation, diagnosis and differential diagnosis, medical tactics, indications for conservative treatment. Features of surgical technique for incarcerated inguinal hernia. Hydrocele of the testicle and spermatic cord. Age-related frequency of the disease. The significance of impaired obliteration of the vaginal</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		<p>process of the peritoneum. Clinical presentation, diagnosis, treatment methods. Principles and timing of surgical treatment. Spermatic cord cyst – rapidly developing, acute onset. Diagnosis, differential diagnosis. Indications for surgical treatment.</p> <p>Practical part: Formulate the diagnosis correctly. Assess the patient's condition, including the postoperative period. Be able to diagnose typical postoperative complications.</p>			
27.	<p>Congenital anomalies of the gastrointestinal tract in children</p>	<p>Theoretical part: Malformations of the oesophagus. Oesophageal atresia, congenital oesophageal stenosis, tracheoesophageal fistula, oesophageal achalasia, reflux, oesophagitis. Rules for transport to a surgical hospital. Congenital pyloric stenosis. Etiology. Pathogenesis. Clinical presentation. Diagnosis. Differential diagnosis. The role of fibrogastroscopy. X-ray diagnosis. Principles of pylorotomy. Features of preoperative preparation and postoperative management. Congenital intestinal obstruction. Etiology. Pathogenesis. The most common forms are atresia, internal stenosis, intestinal rotation abnormalities (Ladd's syndrome, midgut volvulus, internal hernias), enterocysts, annular pancreas. Classification of congenital intestinal obstruction: by location (high, low); by clinical course</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	<p>Testing in Moodle system, frontal survey, practical skills on patient curation</p>	<p>5,2</p>

		<p>(acute, chronic, recurrent). Clinical and diagnostic features depending on the form of obstruction. Radiological diagnosis. Overview and contrast examination methods. Complications and their causes. Medical and surgical tactics for different forms of intestinal obstruction. Principles of surgical treatment.</p> <p>Practical part: Diagnose congenital anomalies of the gastrointestinal tract in children, interpret the data obtained from additional examination methods, determine the tactics for managing the patient.</p>			
28.	Diseases of the colon and rectum in children	<p>Theoretical part: Hirschsprung's disease. Etiology. Pathogenesis. Clinical presentation. Features of clinical manifestations in newborns and infants. Diagnosis. X-ray diagnosis. Complications - faecal impaction, intoxication. Medical and surgical management. Siphon enema technique. Indications for colostomy. Methods of radical surgery. Megadolichocolon. Clinical presentation and diagnosis. X-ray diagnostics. Features of patient care. Indications for surgical treatment. Principles of surgical treatment. Anomalies of the anorectal region. Fistulous and non-fistulous forms. Clinical manifestations. Diagnosis. X-ray diagnostics. Age indications and principles of surgical treatment.</p> <p>Practical part:</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		Diagnose diseases of the colon and rectum, interpret the data obtained from additional examination methods, determine the tactics for managing the patient.			
29.	Paediatric urology	<p>Theoretical part: Anomalies of the urinary tract. Epispadias, hypospadias. Clinical forms. Diagnosis. Age indications, timing, methods of surgical treatment. Anomalies of the genital organs. Hermaphroditism (true and false). The problem of sex determination. Modern research methods. Phimosis, paraphimosis, their surgical treatment. Synechiae of the labia in girls. Anomalies of testicular development and descent. Classification. Clinical presentation and diagnosis of cryptorchidism. Indications for hormonal and surgical treatment. Timing and methods of surgical treatment. Varicocele. Etiology, pathogenesis. Clinical presentation. Diagnosis. Timing of surgical treatment. Principle of surgical intervention. Frequency of kidney abnormalities. Unilateral and bilateral aplasia, duplication of the kidney, cross dystopia, fusion of the kidneys, cystic kidney diseases. Anomalies of the renal pelvis and ureters. Congenital hydronephrosis. Causes, clinical manifestations, diagnosis. The importance of modern research methods in the diagnosis of hydronephrosis. Surgical treatment. Organ-preserving surgery as the method of choice for the surgical treatment</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4 PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>	Testing in Moodle system, frontal survey, practical skills on patient curation	5,2

		<p>of congenital hydronephrosis in children. Duplication of the renal pelvis and ureters, ureterocele, ureteral ectopia, megaureter. Diagnosis and surgical treatment. Vesicoureteral reflux, causes and methods of surgical treatment. Bladder anomalies - bladder diverticulum, bladder neck obstruction, congenital bladder atony. Bladder exstrophy, diagnosis and methods of surgical treatment. Age-related indications for surgical treatment - local tissue plasty, ureteral transposition into the isolated rectum.</p> <p>Practical part: Diagnose diseases of the urinary system, interpret the data obtained from additional examination methods, determine the tactics for managing the patient.</p>			
30.	<p>Skin and subcutaneous fat tissue tumours in children. Credit</p>	<p>Theoretical part: Features of paediatric oncology. Structure of paediatric oncological care. Minor oncological signs. Errors in the diagnosis and treatment of neoplasms in children. Haemangiomas. Forms of haemangiomas. Clinical presentation. Diagnosis. Features of haemangioma development. Complications. Modern methods of treating haemangiomas, treatment duration. Lymphangiomas. Forms of lymphangiomas. Clinical presentation. Diagnosis. Localisation of lymphangiomas. Features of growth. Complications. Indications for emergency surgery. Duration and methods of treating</p>	<p>UK-1: ID 1.1., 1.2., 1.3 UK-6: ID 6.1., 6.3. OPK-4: ID 4.1, 4.3, 4.4, 4.5 OPK-5: ID 5.1, 5.2, 5.3, 5.4, 5.5, 5.6 OPK-7: ID 7.1, 7.2, 7.4, 7.5, 7.6, 7.7 OPK-10: ID 10.2., 10.3 OPK-11: ID 11.1., 11.2., 11.4. PK-1: ID 1.1, 1.2 PK-2: ID 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9 PK-3: ID 3.1, 3.2 PK-4: ID 4.1, 4.2, 4.3 PK-5: ID 5.1, 5.2, 5.3, 5.4</p>	<p>Testing in Moodle system, frontal survey, practical skills on patient curation</p>	5,2

	<p>lymphangiomas. Pigment spots. Their forms, characteristics of progression in children. Hairy, warty, papillomatous nevus. Juvenile melanoma. Vascular (port-wine) stain. Complications. Methods of treating pigment spots. Age indications for surgical treatment.</p> <p>Practical part: Diagnosing the development of the oncological process.</p>	<p>PK-11: ID 11.1, 11.2, 11.3 PK-12: ID 12.1, 12.2, 12.3, 12.4</p>		
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2.4. Interactive forms of learning

№ п/п	Topic of clinical practical training	Labour intensity in hours	Interactive learning format	Labour intensity in hours, as % of employ- ment
1	Diaphragmatic hernias	5,2	<i>Quick survey.</i>	45 min (15%)
2	Esophageal diseases	5,2	<i>Dispute</i>	62 min (30%)
3	Purulent diseases of the lungs, pleura, and mediastinum	5,2	<i>Quick survey.</i>	45 min(15%)
4	Choosing a surgical treatment method for peptic ulcer disease and its complications	5,2	<i>Debates</i>	62 min(20%)
5	Symptomatic ulcers. Diseases of the operated stomach	5,2	<i>Quick survey.</i>	45 min(15%)
6	Focal liver lesions. Mechanical jaundice	5,2	<i>Analysis of a clinical case.</i>	94 min(30%)
7	Gastrointestinal bleeding	5,2	<i>Quick survey.</i>	45 min(15%)
8	Errors and dangers in the diagnosis and treatment of acute appendicitis and acute cholecystitis	5,2	<i>Analysis of a clinical case.</i>	94 min(30%)
9	Principles of treatment of acute pancreatitis and its complications	5,2	<i>Quick survey.</i>	45 min(15%)
10	Certain types of acute coronary syndrome. Diagnosis and treatment of peritonitis	5,2	<i>Debates</i>	62 min(20%)
11	Surgical treatment of thyroid diseases	5,2	<i>Writing a summary report on the topic of the lesson</i>	62 min(20%)
12	Acute and chronic occlusive lesions of the arteries	5,2	<i>Analysis of a clinical case.</i>	62 min(20%)
13	Chronic venous diseases	5,2	<i>Debates</i>	62 min(20%)
14	Venous thrombosis. TELA	5,2	<i>Quick survey.</i>	45 min(15%)
15	Aortic diseases. Surgical treatment of ischaemic heart disease	5,2	<i>Debates</i>	62 min(20%)
16	Chest trauma – simulation exercise	5,2	<i>Video tutorial.</i>	94

			<i>Working with mannequins and models</i>	min(30%)
17	Inflammatory diseases of the colon	5,2	<i>Clinical case analysis. Quick survey</i>	45 min(15%)
18	Precancerous conditions of the colon. Principles of treatment of colorectal cancer	5,2	<i>Clinical case analysis. Quick survey</i>	3,0 hours (60%)
19	Differential diagnosis and treatment of diseases of the rectum and pararectal tissue	5,2	<i>Clinical case analysis. Quick survey</i>	180 min (60%)
20	Protection of medical records. Final testing.	5,2	<i>Clinical case analysis. testing</i>	180 min(60%)
21	Acute appendicitis in children, complications of acute appendicitis. Peritonitis in children.	5,2	<i>Quick survey.</i>	45 min(15%)
22	Acquired intestinal obstruction.	5,2	<i>Debates</i>	62 min(20%)
23	Surgical diseases of the lungs in children.	5,2	<i>Quick survey.</i>	45 min(15%)
24	Acute and chronic haematogenous osteomyelitis.	5,2	<i>Debates</i>	62 min(20%)
25	Purulent-inflammatory diseases in young children and newborns.	5,2	<i>Quick survey.</i>	45 min(15%)
26	Congenital anomalies of the anterior abdominal wall in children.	5,2	<i>Clinical case analysis</i>	94 min(30%)
27	Congenital anomalies of the gastrointestinal tract in children.	5,2	<i>Quick survey.</i>	45 min(15%)
28	Diseases of the colon and rectum in children.	5,2	<i>Debates</i>	62 min(20%)
29	Paediatric urology.	5,2	<i>Quick survey.</i>	45 min(15%)
30	Tumours of the skin and subcutaneous fatty tissue in children. Credit.	5,2	<i>Debates</i>	62 min(20%)

2.5. Criteria for assessing students' knowledge

Assessment of knowledge acquired in the discipline is carried out in accordance with the Regulations on the system of assessing the learning outcomes of students at the

Amur State Medical Academy, a federal state-funded higher education institution of the Ministry of Health of the Russian Federation.

2.7.1. Assessment criteria

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

- Correct, accurate answer;
- Correct, but not accurate answer;
- Incorrect answer;
- No answer.

When assigning marks, it is necessary to take into account the classification of errors and their quality:

- Gross errors;
- Errors of the same type;
- Non-gross errors;
- Shortcomings.

The success of students in mastering the discipline is assessed on a 5-point scale: ‘5’ - excellent, ‘4’ - good, ‘3’ - satisfactory, ‘2’ - unsatisfactory, “pass”, ‘fail’. The conversion of marks to the point scale is carried out according to the following scheme:

Quality of mastery	Mark on a 5-point scale
90 - 100 %	«5»
80 - 89 %	«4»
70 - 79 %	«3»
less 70 %	«2»

Characteristics of digital assessment:

A mark of ‘5’ is awarded to a student who demonstrates a deep and complete mastery of the course material, gives competent and logical answers, is able to link theory with practice, express and justify their opinions, and formulate independent conclusions and generalisations in their answers. The student has mastered all the practical skills and abilities provided for in the work programme of the discipline/practice. 90-100% correct answers in testing.

A mark of ‘4’ is given to a student who has fully mastered the course material, is knowledgeable about the material studied, applies knowledge to solve practical problems, and presents answers competently, but the content and form of the answers contain some inaccuracies or the answers are incomplete. The student has mastered all the practical skills and abilities required by the programme, but makes some inaccuracies. 80-89% correct answers on the test.

A mark of ‘3’ is given to a student if they demonstrate knowledge and understanding of the main points of the course material, but present it incompletely, inconsistently, make inaccuracies, and are unable to substantiate their judgements. They have mastered only some of the practical skills and abilities provided for in the programme. 70-79% correct answers on the test.

A mark of '2' is given to a student if they have scattered, unsystematic knowledge, are unable to distinguish between the main and secondary points, present the material in a disorderly and uncertain manner, and are unable to apply their knowledge to solve practical problems. Practical skills and abilities are performed with gross errors, or there was no attempt to demonstrate theoretical knowledge and practical skills. Less than 70% correct answers on the test.

Procedure for eliminating current debt

- If a student misses a class for a valid reason, they have the right to make up for it and receive the maximum mark provided for in the course syllabus for that class. A valid reason must be documented.
- If a student misses a class for an unjustifiable reason or receives a grade of '2' for all types of activities in the class, they are required to make up for it. In this case, the grade received for all types of activities is multiplied by 0.8.
- If a student is exempt from class on the recommendation of the dean's office (participation in sports, cultural and other events), they will receive a grade of '5' for that class, provided they submit a report on the completion of the required extracurricular independent work on the topic of the missed class.

Criteria for assessing the medical history: оценки учебной истории болезни:

–«5» - the medical history is completed in accordance with the requirements..

–«4» - in the medical history, the student makes inaccuracies in the description of the ophthalmological status, the formulation of the clinical diagnosis, the conduct of the differential diagnosis, the appointment of examination and treatment..

–«3» - the case history is filled out with errors, written in illegible handwriting, uninformative, with inaccuracies in the formulation of the clinical diagnosis, its justification and differential diagnosis, and the preparation of the examination and treatment plan.

–«2» - the training case history is full of serious mistakes, written in illegible handwriting, uninformative, with serious errors in all main sections.

Practical assessment criteria

–«5» (отлично) – the student has fully mastered the practical skills and abilities required by the course syllabus.

–«4» (хорошо) – the student has fully mastered the practical skills and abilities required by the course syllabus, but has made some inaccuracies.

–«3» (удовлетворительно) – the student has mastered only some of the practical skills and abilities.

–«2» (неудовлетворительно) – the student demonstrates practical skills and abilities with gross errors.

2.7.2. Assessment system.

When assessing knowledge, the final mark is calculated as the arithmetic mean of all types of activities. Grades for individual types of work (written, laboratory work) are entered into the academic (electronic) journal before the next class, with the exception of grades for essays and academic case histories, which are entered no later than three days

after the class. Based on the marks for ongoing assessment of knowledge, abilities and skills, the average mark for current performance is calculated and recorded in the academic (electronic) journal. Ongoing assessment of knowledge is taken into account in the interim assessment.

Interim assessment (exam) is designed to evaluate the degree to which the planned learning outcomes have been achieved upon completion of the discipline and allows for an assessment of the level and quality of its mastery by students. The subject of assessment is knowledge, abilities, and skills. Interim assessment is conducted in 3 stages:

1. Test control in the system «MOODLE»<https://educ-amursma.ru/course/view.php?id=636>
2. Assessment of practical skills (competencies).
3. Answers to exam questions or solutions to case studies.

During interim assessment, students can automatically claim an “excellent” grade if they have won a prize in disciplinary or interdisciplinary competitions (university or regional) and have an average grade of at least 4.8 based on their current academic performance. Students may automatically decline the ‘excellent’ grade and take the exam or test together with the group on a general basis.

AIM of the Olympiad: to identify and develop students' creative abilities and interest in practical and research activities, to disseminate and popularise scientific knowledge and innovative technologies among young people in the field of surgery.

OBJECTIVES OF THE OLYMPICS:

- to develop students' practical skills and abilities, identify their aptitudes and level of motivation;
- to determine the overall level of students' readiness for professional activity;
- to improve the level of practical skills acquisition;
- optimising the selection of young personnel for training in the residency programme in the specialty of ‘surgery’;
- organising career guidance work..

The overall management and organisation of the Olympiad is carried out by the organising committee. The chair of the organising committee is the head of the Department of Hospital Surgery with a course in paediatric surgery. The organising committee and jury are formed from among the staff of the department, as well as other members of the teaching staff and practising surgeons (optional).

PROCEDURE FOR CONDUCTING THE OLYMPICS:

- Sixth-year students whose current grade in the discipline ‘Hospital Surgery, Paediatric Surgery’ is at least 4.8 are eligible to participate in the Olympics, as well as those who participate in the meetings of the student scientific society in the form of preparing a report with a multimedia presentation and (or) have publications in collections of abstracts, periodical medical publications, completed under the guidance of the teaching staff of the Department of Hospital Surgery with a course in Paediatric Surgery;
- list of competitions::
 - correspondence distance testing;

- solving a situational problem;
- evaluation of laboratory and instrumental research methods;
- knowledge of instruments;
- surgical knots;
- performance of basic surgical medical procedures in accordance with a list of 10 procedures agreed upon by the organising committee, which changes annually and is made available to participants no later than one month before the date of the competition.
- the winners and prize-winners are determined by the jury members after checking all completed tasks based on the total number of points;
- the total number of points for all competitions is calculated depending on the complexity of the competition and amounts to 100 points. Competition participants automatically receive an ‘excellent’ grade only if they score at least 90 points.
- the winner and prize-winners of the Olympiad automatically receive an ‘excellent’ grade on the exam.

2.6. Independent work of students: classroom and extracurricular

Classroom independent work of students includes:

- independent study, under the guidance of a teacher, of methodological materials prepared by the department's teachers on the topics being studied;
- taking notes on important aspects of the topic being studied;
- supervision of patients in specialised surgical departments;
- practical skills training (Simulation and Assessment Centre);
- viewing and independent production of video presentations on the topics of the classes under the guidance of the teaching staff;
- taking notes on important aspects of the topic being studied;
- preparation of educational videos under the guidance of the teaching staff;
- viewing educational videos..

Out-of-class independent work by students

№	Practical class topics	Time for students to prepare for class	Forms of independent work outside class	
			Mandatory for all students	Mandatory for all students:
1	Diaphragmatic hernias	2	Writing a clinical case	Computer presentation,
2	Diseases of the oesophagus	2		

3	Purulent diseases of the lungs, pleura and mediastinum	2	<p>history. Preparing an essay on the topic of the lesson. (24 hours)</p> <p>literature review and referencing of journals and newspapers on the topic of the lesson, compilation of tables, diagrams, algorithms, drawings, posters on the selected topic of the lesson, research work, work in the Student Scientific Society, preparation of reports for conferences (24 hours)</p>	
4	Choice of surgical treatment for peptic ulcer disease and its complications	2		
5	Symptomatic ulcers. Diseases of the operated stomach	2		
6	Focal liver lesions. Mechanical jaundice	2		
7	Gastrointestinal bleeding	2		
8	Errors and dangers in the diagnosis and treatment of acute appendicitis and acute cholecystitis	2		
9	Principles of treatment of acute pancreatitis and its complications	2		
10	Certain types of acute coronary syndrome. Diagnosis and treatment of peritonitis	2		
11	Surgical treatment of thyroid diseases	2		
12	Acute and chronic occlusive arterial lesions	2		
13	Chronic venous diseases	2		
14	Venous thrombosis. TELA	2		
15	Aortic diseases. Surgical treatment of ischaemic heart disease	2		
16	Chest trauma – simulation exercise	2		
17	Inflammatory diseases of the colon	2		
18	Precancerous conditions of the colon. Principles of treatment of colorectal cancer	2		
19	Differential diagnosis and treatment of diseases of the rectum and pararectal tissue	2		
20	Defence of medical history. Final testing	2		
21	Acute appendicitis in children, complications of acute appendicitis. Peritonitis in children	2		
22	Acquired intestinal obstruction.	2		
23	Surgical diseases of the lungs in children.	2		
24	Acute and chronic haematogenous osteomyelitis.	2		
25	Purulent-inflammatory diseases in young children and newborns.	2		
26	Congenital anomalies of the anterior abdominal wall in children.	2		
27	Congenital anomalies of the gastrointestinal tract in children.	2		
28	Diseases of the colon and rectum in children	2		
29	Paediatric urology	2		
30	Tumours of the skin and subcutaneous fatty tissue in children. Credit.	2		
Total		60		48

2.7. Research (project) work.

This is a compulsory part of the educational programme, aimed at the comprehensive development of general cultural and professional competencies. When developing research work, students are given the opportunity to study specialised literature on issues of surgery in children and adults, participate in scientific research or technical development, including scientific developments by the teaching staff of the department in the main scientific areas (abdominal surgery, cardiovascular surgery), and collect, process and analyse information on specific topics.

3. TEACHING METHODS, MATERIALS, TECHNICAL SUPPORT AND INFORMATION RESOURCES FOR THE DISCIPLINE

3.1. Main literature

№ п/п	MAIN LITERATURE:
1.	Кузин, М. И. Хирургические болезни : учебник / М. И. Кузин, Н. М. Кузин, В. А. Кубышкин и др. - 5-е изд. ,перераб. и доп. - Москва : ГЭОТАР-Медиа, 2020. - 1024 с. - ISBN 978-5-9704-5438-1. - Текст : электронный (дата обращения: 05.05.2021). - Режим доступа : по подписке. http://www.studmedlib.ru/book/ISBN9785970454381.html
2.	Крылов, Н. Н. Хирургические болезни : в 2 т. : Т. 1 : учебник / под ред. Крылова Н. Н. - Москва : ГЭОТАР-Медиа, 2019. - 816 с. - ISBN 978-5-9704-5098-7. - Текст : электронный (дата обращения: 05.05.2021). - Режим доступа : по подписке. http://www.studmedlib.ru/book/ISBN9785970450987.html
3.	Крылов, Н. Н. Хирургические болезни : Т. 2 : учебник / под ред. Крылова Н. Н. - Москва : ГЭОТАР-Медиа, 2019. - 592 с. - ISBN 978-5-9704-5099-4. - Текст : электронный (дата обращения: 05.05.2021). - Режим доступа : по подписке. http://www.studmedlib.ru/book/ISBN9785970450994.html
4.	4.Разин, М. П. Детская хирургия : учебник / М. П. Разин, С. В. Минаев, И. А. Турабов и др. - 2-е изд. ,перераб. и доп. - Москва : ГЭОТАР-Медиа, 2020. - 704 с. - ISBN 978-5-9704-5697-2. - Текст : электронный (дата обращения: 05.05.2021). - Режим доступа : по подписке. http://www.studmedlib.ru/book/ISBN9785970456972.html

3.2. Further reading

1.	Кек, Т. Минимальноинвазивная абдоминальная хирургия / Т. Кек, К. Гермер, А. Шабунин [и др.]. - Москва : ГЭОТАР-Медиа, 2021. - 624 с. - ISBN 978-5-9704-6000-9. - Текст : электронный (дата обращения: 05.05.2021). - Режим доступа : по подписке.
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	http://www.studmedlib.ru/book/ISBN9785970460009.html
2.	Загрядский, Е. А. Малоинвазивная хирургия геморроидальной болезни / Е. А. Загрядский. - Москва : ГЭОТАР-Медиа, 2020. - 224 с. - ISBN 978-5-9704-5879-2. - Текст : электронный (дата обращения: 05.05.2021). - Режим доступа : по подписке.
3.	Разин, М. П. Хирургия новорожденных : учебное пособие / Разин М. П. , Скобелев В. А. , Железнов Л. М. и др. - Москва : ГЭОТАР-Медиа, 2020. - 328 с. - ISBN 978-5-9704-5387-2. - Текст : электронный (дата обращения: 05.05.2021). - Режим доступа : по подписке. http://www.studmedlib.ru/book/ISBN9785970453872.html
4.	Подкаменев, В. В. Неотложная абдоминальная хирургия детского возраста : учебное пособие / под ред. Подкаменева В. В. - Москва : ГЭОТАР-Медиа, 2018. - 208 с. - ISBN 978-5-9704-4332-3. - Текст : электронный (дата обращения: 05.05.2021). - Режим доступа : по подписке. http://www.studmedlib.ru/book/ISBN9785970443323.html

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

Electronic and digital technologies:

1. Online course on the subject "Hospital Surgery, pediatric surgery" at the EIOS Federal State Budgetary Educational Institution OF Higher Education of the Amur State Medical Academy

5 course 9 semester: <https://educ-amursma.ru/course/view.php?id=636>

5 course 10 semester: <https://educ-amursma.ru/course/view.php?id=247>

Visual aids for lectures and practical classes:25

a) Teaching aids:

- 1.Symptomatic gastroduodenal ulcers, 2012, ass. S.V.Anikin
2. Diseases of the operated stomach, 2011, Prof. V.V.Yanova
3. Colorectal cancer, 2012, assoc. Yu.V.Dorovskikh
4. Acute pancreatitis, 2011, ass. A.V. Zavaruyev
5. Acute calculous cholecystitis. Mechanical jaundice, 2009, professor V.V.Yanova
6. Outpatient surgery, 2011, ass. S.V.Anikin
7. Mediastenity, 2009, acc. by A.A.Mazurenko
8. Diaphragmatic hernias and relaxation of the diaphragm, 2011, Prof. V.V.Yanova
9. Sonography in acute abdomen, 2010, assoc. Yu.V.Dorovskikh
10. Functional methods of gastric examination, 2010, prof. V.V.Yanova
11. Purulent diseases of the lungs and pleura, 2011, assoc. Yu.V.Dorovskikh
12. Surgery of symptomatic arterial hypertension, 2020, assoc. Anikin S.V.
13. Surgery of disorders of mesenteric circulation, 2020, assoc. Anikin S.V.13.

b) Educational videos:

- Pleural puncture. – Anikin S.V., Blagoveshchensk, 2018.

•The method of installing the Blackmore probe. – Anikin S.V., Blagoveshchensk, 2021.

c) Stands:

- Acute arterial insufficiency;
- Chronic arterial insufficiency;
- Venous insufficiency;;
- TELA;
- Diaphragmatic hernias;
- Diseases of the oesophagus;
- Diseases of the liver;
- Diseases of the operated stomach;;
- Peptic ulcer disease and its complications;
- Surgery for peptic ulcer disease;;
- Purulent-destructive diseases of the lungs;
- Pancreatitis;;
- Colorectal cancer;.

d) Videos:

- Appendicitis, appendectomy;
- RHPG, EPST;
 - Transanal microsurgery;
 - Laparoscopic cholecystectomy;
 - Laparoscopic drainage of the biliary tree;
 - Laparoscopic subfascial venectomy;
 - Endoscopic polypectomy from the stomach;
 - Endoscopic removal of a tumour from the sigmoid colon;
 - Resection of the colon;
 - Sigmoidectomy;
 - Selective vagotomy;
 - Stem vagotomy;
 - Closure of colostomy;

e) Multimedia presentations:

- Acute cholecystitis.
- Surgery on the distal rectum and perineum.
- Chronic diseases of the veins of the lower extremities.
- Water-salt metabolism disorders in surgical patients.
- Surgical intervention for diseases of the colon.
- Mechanical jaundice.
- Acute pancreatitis.
- Aortoarteriography. Catheter surgery.
- Acute appendicitis. Diagnosis and treatment.
- Functional anatomy of arteries.
- Instrumental interventions on the BDS.
- Acute intestinal obstruction.
- General proctology.

- Oncoproctology.
- Surgery for stomach diseases.
- Acute venous thrombosis.

3.4. Equipment used for the educational process

Students are taught this subject at the Department of Hospital Surgery with a course in paediatric surgery, which is based at the Amur Regional Clinical Hospital and the Amur Regional Children's Clinical Hospital, where the teaching process involves training workshops as well as the material and technical base of medical and preventive institutions – departments, wards, operating rooms, and conference rooms.

Name of discipline (module), practical training in accordance with the curriculum	Names of special* rooms and rooms for independent work	Equipment of special rooms and rooms for independent work
Discipline: 'Hospital Surgery, Paediatric Surgery' 31.05.01 'Medical Treatment'	Classrooms for lecture-type classes: Lecture Hall No. 5, 675006, Blagoveshchensk, Gorky Street, 101 Lecture Hall No. 2, 675006, Blagoveshchensk, Gorky Street, 95	Rooms equipped with specialized furniture, multimedia equipment (screen, projector, laptop), sound amplifying equipment
	Classrooms for practical classes, group and individual consultations, ongoing monitoring and intermediate certification: room No. 135, Blagoveshchensk, 675028, Voronkova str., 26 room no. 156, 675028, Blagoveshchensk, Voronkova str., 26	Classrooms equipped with specialized furniture: Marker board – 1 pc., teacher's table – 1 pc., study table – 5 pcs., chairs – 17 pcs.). Marker board – 1 pc., teacher's table – 1 pc., educational table – 5 pcs., chairs – 17 pcs., educational stand – 6 pcs.
	Room No. 158, Blagoveshchensk, 675028, Voronkova str., 26	Chalk board – 1 pc., teacher's table – 2 pcs., educational table – 5 pcs., chairs – 14 pcs., educational stand – 4 pcs., couch – 1 pc., video

	<p>room No. 159, 675028, Blagoveshchensk, Voronkova str., 26</p> <p>room No. 161, 675028, Blagoveshchensk, Voronkova str., 26</p> <p>room No. 3/4.03, 675005, Blagoveshchensk, Oktyabrskaya str., 108</p> <p>room No. 3/1.38, 108 Oktyabrskaya St., Blagoveshchensk, 675005</p> <p>room No. 5/2.43, 108 Oktyabrskaya St., Blagoveshchensk, 675005</p>	<p>projector - 1 pc.</p> <p>Chalk board – 1 pc., teacher's table – 1 pc., educational table – 6 pcs., chairs – 14 pcs., couch – 1 pc., educational stand – 4 pcs. video projector – 1 pc.</p> <p>Chalk board – 1 pc., teacher's table – 1 pc., educational table – 7 pcs., chairs – 18 pcs., educational stand – 5 pcs., video projector – 1 pc.</p> <p>Marker board – 1 pc., cabinet – 1 pc., teacher's table – 1 pc., educational table – 4 pcs., chairs – 16 pcs., educational stand – 2 pcs.</p> <p>Marker board – 1 pc., cabinet – 1 pc., teacher's table – 1 pc., educational table – 3 pcs., chairs – 16 pcs., educational stand – 2 pcs., personal computer – 1 pc.</p> <p>Marker board – 1 pc., cabinet – 1 pc., teacher's table – 1 pc., educational table – 4 pcs., chairs – 14 pcs., educational stand – 2 pcs. personal computer – 1 pc., monitor – 2 pcs.</p>
	<p>Classrooms for conducting simulation classes: room No. 24, 675006, Blagoveshchensk, Gorky str., 101</p>	<p>Equipment: teacher's table – 1 pc., tables – 7 pcs., chairs - 15 pcs., computer – 1 pc., multimedia projector – 1 pc., cabinet – 1 pc., video monitoring and recording system of the simulation learning process – 1 pc.</p>
	<p>Classrooms for conducting simulation classes: room No. 26, 675006, Blagoveshchensk, Gorky str., 101</p>	<p>Medical bed – 1 pc., bedside table – 1 pc., medical table – 1 pc., table – 1 pc., changing table – 1 pc., treatment table – 2 pcs., general purpose negatoscope – 1 pc., dummy for the diagnosis of abdominal diseases – 1 pc., chest</p>

		injury simulator (puncture) – 1 pc., simulator for training in medical care for injuries, punctures and chest drainage – 1 pc., pneumothorax simulator – 1 pc., video monitoring and recording system for simulation training – 1 pc., patient simulator simulating an adult male for ECG skills training – 1 pc.
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3.5. Professional databases, information and reference systems, electronic educational resources

Resource name	Resource description	Access	Resource address
Electronic library systems			
«Консультант студента» Электронная библиотека медицинского вуза.	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/
«Консультант врача» Электронная медицинская библиотека.	The materials hosted in the library were developed by leading Russian experts 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 passed mandatory independent review.	library, individual access	http://www.rosmedlib.ru/cgi-bin/mb4x
PubMed	A free search engine in the largest medical bibliographic database MedLine. Documents medical and biological articles from the specialized literature, as well as provides links to full-text articles.	library, free access	http://www.ncbi.nlm.nih.gov/pubmed/
OxfordMedici	The Oxford Publishing House's	library, free	http://www.oxfordme

neOnline.	collection of medical publications, which combines over 350 publications into a cross-searchable common resource. Publications include TheOxfordHandbookofClinical Medicine and TheOxfordTextbookofMedicine, the electronic versions of which are constantly updated.	access	dicine.com
База знаний по биологии человека	Background 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/
Медицинская онлайн библиотека	Free reference books, encyclopedias, books, monographs, essays, English literature, tests.	library, free access	http://med-lib.ru/
Information systems			
Российская медицинская ассоциация	A professional online resource. Purpose: to promote the effective professional activity of medical staff. It contains the charter, personalities, structure, rules of entry, and information about the Russian Medical Union.	library, free access	http://www.rmass.ru/
Web-медицина	The site is a catalog of professional medical resources, including links to the most reputable thematic sites, journals, societies, as well as useful documents and programs. The website is intended for doctors, students, employees of medical universities and scientific institutions.	library, free access	http://webmed.irkutsk.ru/
Databases			
Всемирная организация здравоохранения	The site contains news, statistics on the countries belonging to the World Health Organization, newsletters, reports, WHO	library, free access	http://www.who.int/ru/

	publications and much more.		
Министерств а науки и высшего образования Российской Федерации	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
Министерств о просвещения Российской Федерации.	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/
Федеральный портал «Российское образование»	A single window of access to educational resources. This portal provides access to textbooks on all branches of medicine and healthcare..	library, free access	http://www.edu.ru/ http://window.edu.ru/catalog/?p_rubr=2.2.81.1
Bibliographic databases			
БД «Российская медицина»	It has been created in the CNMB and covers the entire fund since 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 proceedings of institutes, 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.R U	The 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. On the eLibrary platform. Electronic versions of more than 2,000 Russian scientific and technical journals are available, including more than 1,000 open access journals.	library, free access	http://elibrary.ru/defaultx.asp
Портал	Currently, the Electronic Library	library, free	http://diss.rsl.ru/?me

Электронная библиотека диссертаций	of Dissertations of the Russian State Library of Economics contains more than 919,000 full texts of dissertations and abstracts..	access	nu=disscatalog/
Медлайн.ру	A medical and biological portal for specialists. Biomedical Journal. Last updated on February 7, 2021	library, free access	http://www.medline.ru

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

Licensed and freely distributed software		
№ п/п	List of software (commercial software products)	Details of supporting documents
1.	Операционная система MSWindows 7 Pro	Номер лицензии 48381779
2.	Операционная система MSWindows 10 Pro	ДОГОВОР №УТ-368 от 21.09.2021
3.	MS Office	Номер лицензии: 43234783, 67810502, 67580703, 64399692, 62795141, 61350919
4.	Kaspersky Endpoint Security для бизнесаРасширенный	Договор 326по/21-ИБ от 26.11.2021
5.	1С Бухгалтерия и 1С Зарплата	ЛИЦЕНЗИОННЫЙ ДОГОВОР 612/Л от 02.02.2022
6.	1С:Университет ПРОФ	ЛИЦЕНЗИОННЫЙ ДОГОВОР № ЦБ-1151 от 01.14.2022
7.	1С: Библиотека ПРОФ	ЛИЦЕНЗИОННЫЙ ДОГОВОР № 2281 от 11.11.2020
8.	Консультант Плюс	Договор № 37/С от 25.02.2022
9.	Актин 360	Договор № 574 от 16.11.2021
10.	Среда электронного обучения ЗКЛ(Русский Moodle)	Договор № 1362.2 от 15.11.2021
11.	AstraLinuxCommonEdition	Договор № 142 А от 21.09.2021
12.	Информационная система "Планы"	Договор № 8245 от 07.06.2021
13.	1С:Документооборот	Договор № 2191 от 15.10.2020
14.	Р7-Офис	Договор № 2 КС от 18.12.2020

List of freely distributed software		
№ п/п	List of freely distributed software	Links to the license agreement

1.	The Yandex Browser	Distributed for free License agreement for the use of Yandex Browser programs https://yandex.ru/legal/browser_agreement/
2.	Yandex.Teleconference	Distributed for free Software License Agreement https://yandex.ru/legal/telemost_mobile_agreement/
3.	Dr.WebCureIt!	Distributed for free License Agreement: https://st.drweb.com/static/new-www/files/license_CureIt_ru.pdf
4.	OpenOffice	Distributed for free License http://www.gnu.org/copyleft/lesser.html
5.	LibreOffice	Distributed for free License: https://ru.libreoffice.org/about-us/license/

3.7. Resources of the Internet information and telecommunication network

№ п/п	Resource	Email address
1.	Rosminzdrav. Standards of primary health care	https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/1-standarty-pervichnoy-mediko-sanitarnoy-pomoschi
2.	Rosminzdrav. Standards of specialized medical care	https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/2-standarty-spetsializirovannoy-meditsinskoy-pomoschi
3.	Rosminzdrav. Procedures for providing medical care	https://www.rosminzdrav.ru/ministry/61/4/stranitsa-857/poryadki-okazaniya-meditsinskoy-pomoschi-naseleniyu-rossiyskoy-federatsii
4.	Federal Electronic Medical Library	http://www.femb.ru
5.	Medical literature booksmed	http://www.booksmed.com/
6.	Medica Library	http://meduniver.com/Medical/Book/index.html

7.	Medical portal. Students, doctors, medical books	http://medvuz.info/load/
8.	Electronic medical books	http://www.medliter.ru/
9.	Video lessons on medicine	http://meduniver.com/Medical/Video/
10.	Medical video portal	http://www.med-edu.ru/
11.	Video encyclopedia	https://www.health-ua.org/video/

4. ASSESSMENT MATERIALS FUND

4.1. Current test control (entrance, initial, milestone), final

4.1.1.Examples of input control test tasks (with response standards)

The test tasks are located in the "Moodle" system. Access mode:

<https://educ-amursma.ru/mod/quiz/view.php?id=18300>

Total number of tests – 100.

1.THERE ARE ALL TYPES OF INJURIES EXCEPT:

- 1) Production
- 2) Agricultural
- 3) School
- 4) Public

2.SPECIALIZED FIRST AID FOR INJURIES IS PROVIDED IN:

- 1) Scientific research institutes
- 2) Rehabilitation centers
- 3) Trauma centers
- 4) Polyclinics

3.MORTALITY IN SEPSIS PATIENTS IN DEVELOPED COUNTRIES?

- 1) 10-20%
- 2) 30-40%
- 3) 0-10%
- 4) Recovery without treatment

Benchmarks of responses: 1-4; 2-1; 3-2

4.1.2. Examples of initial control test tasks (with response standards)

The test tasks are located in the "Moodle" system. Access mode:

<https://educ-amursma.ru/mod/quiz/view.php?id=18971>

Total number of tests – 100.

4.1.3. Examples of border control test tasks (with response standards)

The test tasks are located in the "Moodle" system. Access mode:

<https://educ-amursma.ru/mod/quiz/view.php?id=18297>

Total number of tests – 180.

4.1.4. Examples of final control test tasks (with response standards)

The test tasks are located in the "Moodle" system. Access mode:

<https://educ-amursma.ru/mod/quiz/view.php?id=21095>

Total number of tests – 240.

4.2. Situational tasks (with response standards)

TASK NUMBER 1. A 12-year-old boy complained of “pulling” pains in the lower abdomen, more on the right, at an appointment at the polyclinic to the district pediatrician. Got sick 4 days ago. There was no nausea, vomiting, or stool disorders. The body temperature did not rise above 37.2 C0. On examination, a dense, immobile tumor-like formation measuring 10 x 8 cm with indistinct borders and moderately painful is palpated in the right iliac region. Symptoms of peritoneal irritation are negative. In other parts, the abdomen is soft and painless. In the general blood test: leukocytes - $9.0 \times 10^9/l$, hemoglobin - 130 g/l, erythrocytes - $3.9 \times 10^9/l$, rod-shaped neutrophils – 3%, segmented neutrophils - 58, lymphocytes – 32%, monocytes – 7%, ESR - 6 mm/hour.

Task.

1. What is your intended diagnosis?
2. What additional studies should be conducted to clarify the existing pathology?
3. Therapeutic tactics for this clinical form of the disease?
4. Possible complications and their treatment?

The standard response: 1) Ileocecal invagination; 2) Contrast surgery; 3) Pneumotubation; 4) perforation, necrosis – laparotomy, intestinal resection.

TASK NUMBER 2. A 7-year-old girl was taken to the emergency room of the children's hospital half an hour after the car accident. The doctor on duty suspected a rupture of a hollow abdominal organ. The child's condition is extremely serious. The pulse rate is 110 beats per minute. Blood pressure is 80/40 mmHg. In the general blood test: leukocytes - $11.0 \times 10^9/l$, hemoglobin - 100 g/l, erythrocytes - $3.0 \times 10^9/l$, rod-shaped neutrophils – 2%, segmented neutrophils - 66, lymphocytes – 21%, monocytes – 11%, ESR - 6 mm/hour.

Task.

1. Based on what clinical signs could the doctor on duty have suspected a rupture of the abdominal cavity cavity?
2. What additional diagnostic methods can be used?
3. The scope and sequence of anti-shock measures?
4. Methods of treatment of closed injuries of hollow abdominal organs?

The standard response: 1) signs of peritonitis, absence of liver dullness,; 2) P-scopy -

the presence of gas in the subdiaphragmatic space; 3) intensive therapy on the operating table, laparotomy, revision of the abdominal organs, suturing or resection of the affected organ, abdominal sanitation, drainage; 4) intubation of the hollow organ, suturing, drainage.

4.2.1. Examples of situational tasks of the current (output) control (with response standards)

<https://educ-amursma.ru/mod/resource/view.php?id=19812>

4.2.2. Examples of situational tasks of border control (with response standards)

<https://educ-amursma.ru/mod/resource/view.php?id=18862>

4.3. The list of practical skills that a student should possess after mastering the discipline

1. Correctly interpret the data of clinical, additional research methods for arterial diseases.
2. Formulate a reasoned diagnosis for arterial diseases.
3. Purposefully apply functional tests of Oppel, Samuels, and Kazachesku in arterial diseases.
4. Provide medical care for acute vascular obstruction (thrombosis, embolism, injury).
5. Based on the available clinical data and additional research methods, it is correct to build a clinical diagnosis of venous diseases.
6. To conduct tests for the viability of the valvular apparatus, patency of the deep veins of the lower extremity: Gackenbruch, Delbe-Perts, Mayo-Pratt, Sheinis.
7. Use an elastic bandage for venous diseases.
8. Stop the bleeding from the varicose node.
9. To assess the severity of a patient's condition with coronary artery disease based on physical examination methods.
10. Correctly interpret physical, laboratory, and instrumental research methods for heart defects.
11. Measure the CVD for heart defects.
12. To interpret the results of special research methods for acute arterial obstruction.
13. To interpret the data of laboratory, instrumental and other special research methods in the development of complications of varicose veins of the extremity, thrombophlebitis, PTFS, PE.
14. To conduct and evaluate functional tests in patients with diseases of the veins of the lower extremities.
15. Interpret correctly the results of physical, laboratory, instrumental and special examination methods for various diseases of the aorta and its branches.
16. Correctly interpret the results of additional research methods for diaphragmatic

- hernias.
17. To interpret the results of diagnostic measures for purulent lesions of the lungs and pleura, trauma to the organs of the thoracic cavity.
 18. Puncture the pleural cavity.
 19. Assemble a system for drainage of the pleural cavity according to Bulau.
 20. Assemble a set of tools for thoracocentesis.
 21. Perform intercostal, vagosympathetic blockade, pleural puncture in case of chest injury.
 22. Correctly interpret clinical and instrumental research methods for diseases of the esophagus.
 23. To analyze the obtained physical, laboratory, and instrumental data for HCV and its complications.
 24. To assess the severity of the patient's condition with non-ulcerative bleeding of the gastrointestinal tract.
 25. To interpret physical, laboratory and instrumental research methods on the basis of which to substantiate the nature of jaundice.

4.4. List of exam questions


1. Congenital heart defects of the "white type". Hemodynamics. The clinical picture. Diagnostics.
2. Congenital heart defects of the "blue type". Hemodynamics. The clinical picture. Diagnostics.
3. Chronic venous insufficiency. Classification. Etiopathogenesis. The clinical picture. Diagnostics.
4. Phlebothrombosis and PE. Classification. Etiopathogenesis. The clinical picture. Differential diagnosis. Diagnostic program.
5. Chronic occlusive diseases of the arteries of the lower extremities. Etiopathogenesis. The clinical picture. Lericq syndrome. Classification of chronic limb ischemia. Diagnostics.
6. Occlusive diseases of brachycephalic arteries. Etiopathogenesis. The clinical picture. Classification of cerebral ischemia. Diagnostics.
7. Aneurysms. Classification. The clinical picture. Complications. Diagnostic program.
8. Acute arterial obstruction. Etiopathogenesis. The clinical picture. Classification of acute limb ischemia. Diagnostic program.
9. Occlusive diseases of the coronary arteries. Etiopathogenesis. The clinical picture. Diagnostics.
10. Acquired mitral defects. Hemodynamics. The clinical picture. Diagnostics.
11. Acquired aortic defects. Hemodynamics. The clinical picture. Diagnostics.
12. WINDOW. Classification. The clinical picture. Differential diagnosis. Diagnostic program.
13. Peptic ulcer disease. Complications. Clinical picture and diagnostic methods of complications.

14. Symptomatic gastroduodenal ulcers. Etiopathogenesis. Clinical picture and diagnostic methods of complications.
15. Acute cholecystitis. Classification. Etiopathogenesis. The clinical picture. Complications. Diagnostics.
16. Diseases of the operated stomach. Classification. Dumping syndrome and adductor loop syndrome. The clinical picture. Diagnostics.
17. Non-ulcerative gastrointestinal bleeding. Etiopathogenesis. Classification. The clinical picture. Diagnostic program.
18. Diseases of the thyroid gland. Classification. Diagnostic methods.
19. Acute appendicitis. Classification. Etiopathogenesis. The clinical picture. Atypical forms. Complications. Diagnostics.
20. Mechanical jaundice. Etiopathogenesis. The clinical picture. Diagnostic program.
21. Acute pancreatitis. Classification. The clinical picture. Complications. Diagnostic program.
22. Peritonitis. Etiology. Classification. The clinical picture. Abdominal sepsis.
23. Purulent-inflammatory diseases of the lungs and pleura. Etiopathogenesis. The clinical picture. Diagnostics.
24. Chest injury. Classification. The clinical picture. Diagnostic method.
25. Diaphragmatic hernias. Classification. The clinical picture. Diagnostics.
26. Diseases of the esophagus. Neuromuscular diseases, diverticula, burns and strictures of the esophagus. The clinical picture. Diagnostics.
27. Inflammatory diseases of the colon from the perspective of a surgeon. Clinical picture and diagnostic methods of complications. Differential diagnosis.
28. Precancerous diseases of the colon. The clinical picture. Diagnostics.
29. Colorectal cancer. The clinical picture. Diagnostics.
30. Diseases of the rectum and pararectal tissue. Classification. Etiopathogenesis. The clinical picture. Diagnostics.
31. Treatment program for acute arterial obstruction. Tactics. Indications for surgery. Types of operations.
32. Surgical treatment of congenital heart defects. Indications. Types of operations.
33. Treatment program for chronic venous diseases. Indications for surgery. Types of operations.
34. Treatment program for phlebothrombosis. Tactics. Indications and methods of surgical prevention of PE.
35. Treatment program for chronic occlusive diseases of peripheral arteries. Indications for surgery. Types of operations.
36. Surgical treatment of aortic aneurysms and their complications. Types of operations.
37. Surgical treatment of occlusive diseases of the coronary arteries. Indications. Types of operations.
38. Surgical treatment of acquired heart defects. Indications. Types of operations.
39. Treatment program for PE.
40. X-ray endovascular methods of treatment of diseases of the cardiovascular system.
41. Surgical treatment of occlusive diseases of brachiocephalic arteries. Indications. Types of operations.

42. Treatment program for acute and chronic mesenteric ischemia. Tactics. Types of operations.
43. Surgical treatment of OCD. Preoperative preparation. Tactics.
44. Choosing a treatment method for peptic ulcer and its complications. Indications for surgery. Types of operations. Treatment program for symptomatic gastroduodenal ulcers.
45. Treatment program for complicated and uncomplicated forms of acute cholecystitis. Types of operations.
46. Treatment program for complicated and uncomplicated forms of acute appendicitis. Types of operations.
47. Treatment program for dumping syndrome and adductor loop syndrome. Indications for surgery. Types of operation.
48. Treatment program for gastroduodenal bleeding. Tactics. Indications for surgery. Types of operations.
49. Surgical treatment of benign thyroid diseases. Indications for surgery. Types of operations. Postoperative complications.
50. Treatment program for obstructive jaundice. Tactics. Indications for surgery. Types of operations.
51. Treatment program for focal liver lesions. Indications for surgery. Types of operations.
52. Treatment program for acute pancreatitis and its complications. Indications for surgery. Types of operations.
53. Methods of treatment of purulent-inflammatory diseases of the lungs and pleura. Indications for surgery.
54. First aid for chest injuries. Tactics. Indications for thoracotomy.
55. Surgical treatment of diaphragmatic hernias. Indications. Types of operations.
56. Surgical treatment of neuromuscular diseases, diverticula and strictures of the esophagus. Indications. Types of operations.
57. Surgical treatment of complications of inflammatory bowel diseases. Types of operations.
58. The choice of surgical treatment for cancer of the rectum and colon. Types of operations.
59. Surgical treatment of hemorrhoids, acute and chronic paraproctitis, epithelial coccygeal passage, anal fissure.
60. Surgical treatment of precancerous diseases of the colon. Indications. Types of operations.
61. Features of clinical manifestations, diagnosis and treatment of acute appendicitis in young children (under 3 years of age).
62. Peritonitis in children. Etiopathogenesis. The clinical picture. Diagnostics. Treatment.
63. Complications of acute appendicitis in children. The clinical picture. Diagnostics. Surgical tactics.
64. Features of clinical manifestations of acute appendicitis in childhood, depending on the location of the appendix.

65. Acquired intestinal obstruction in children. Etiopathogenesis. Classification. Diagnostics. Treatment.
66. Intestinal invagination in children. Etiology. Diagnostics. Treatment.
67. Gastrointestinal bleeding in children. Etiology. Classification. Diagnostics. Treatment.
68. Acute hematogenous osteomyelitis in children. Etiopathogenesis. Classification. The clinical picture. Diagnostics. Treatment.
69. Varicocele. Etiopathogenesis. Clinical forms. Diagnostics. Treatment.
70. Chronic osteomyelitis in children. The clinical picture. Diagnostics. Treatment. Prevention and treatment of complications.
71. Epiphyseal osteomyelitis in children. Etiopathogenesis. The clinical picture. Diagnostics. Treatment.
72. Atypical forms of hematogenous osteomyelitis. The clinical picture. Diagnostics. Differential diagnosis. Treatment.
73. Necrotic phlegmon of the newborn. Etiopathogenesis. The clinical picture. Treatment.
74. Omphalite. Classification. The clinical picture. Differential diagnosis. Treatment.
75. Newborn mastitis. Etiology. Diagnostics. Treatment. Prevention.
76. Acute destructive pneumonia in children. Classification. The clinical picture. Treatment.
77. Pneumothorax in children. Classification. Etiopathogenesis. The clinical picture. Diagnostics. Treatment.
78. Pyothorax in children. Etiopathogenesis. Classification. The clinical picture. Diagnostics. Treatment.
79. Congenital inguinal hernia in children. Etiopathogenesis. The clinical picture. Complications. Differential diagnosis. Treatment.
80. Umbilical hernia in children. The clinical picture. Treatment.
81. Surgical treatment of inguinal hernias in children. Types of inguinal canal plastic surgery depending on age.
82. Atresia of the esophagus. Etiopathogenesis. Types of esophageal atresia. The clinical picture. Diagnostics. Differential diagnosis. The tactics of the maternity hospital doctor and the organization of transportation. Treatment.
83. Congenital high intestinal obstruction. Etiology. Classification. The clinical picture. Diagnostics. Differential diagnosis. Treatment.
84. Congenital low intestinal obstruction. Etiology. Classification. The clinical picture. Diagnostics. Differential diagnosis. Treatment.
85. Congenital pyloric stenosis. Etiopathogenesis. The clinical picture. Diagnostics. Differential diagnosis. Treatment.
86. Hirschsprung's disease. Etiopathogenesis. The clinical picture. Diagnostics. Treatment.
87. Malformations of the rectum. Classification. The clinical picture. Diagnostics. Treatment.
88. Abnormalities of testicular development and descent in children. Etiopathogenesis. The clinical picture. Diagnostics. Treatment.

89. Dropsy of testicular membranes, cysts of the spermatic cord. Etiopathogenesis. The clinical picture. Diagnostics. Differential diagnosis. Treatment.
90. Hemangiomas. Etiology. Classification. The clinical picture. Treatment.

APPROVED
at a department meeting hospital
hospital surgery with a pediatric surgery course
Protocol No.8 of April 20, 2026
Head of the Department  O.B. Vdovin

**ADDITIONS AND CHANGES TO THE EDUCATION PROGRAM FOR THE DISCIPLINE
"HOSPITAL SURGERY, PEDIATRIC SURGERY" 31.05.02 MEDICAL CARE
FOR THE 2026-2027 ACADEMIC YEAR**

The tables in section 3.5. "Licensed and freely distributed software used in the educational process" and "Professional databases, information and reference systems, and electronic educational resources" should be presented in the following format:

List of software (commercial software products)

№	List of software (commercial software products)	Details of supporting documents
1.	The operating system MS Windows 7 Pro	License number 48381779
2.	The operating system MS Windows 10 Pro	Contract № TM-368 from 21.09.2021
3.	MS Office	License number: 43234783, 67810502, 67580703, 64399692, 62795141, 61350919
4.	Kaspersky Endpoint Security for business – Standard Russian Edition. 50-99 Node 1-year Educational Renewal License	Contract № 7 AA от 07.02.2025
5.	1C Accounting and 1C Salary	LICENSE AGREEMENT 612/L dated 02.02.2022 (additional licenses)
6.	1C: University PROF	LICENSE AGREEMENT № KRTSB - 004537 from 19.12.2023
7.	1C: PROF Library	LICENSE AGREEMENT № 2281 from 11.11.2020
8.	Consultant Plus	Contract № 41AA from 27.12.2024
9.	Contour.Tolk	Contract № K213753/24 from 13.08.2024
10.	3KL e-learning environment (Russian Moodle)	Contract № 1362.5 from 20.11.2024
11.	Astra Linux Common Edition	Contract № 142 A from 21.09.2021
12.	Information system "Plans"	Contract № 2873-24 from 28.06.2024
13.	1C: Document management	Contract № 2191 from 15.10.2020
14.	P7-Office	Contract № 2 CS from 18.12.2020
15.	OS RASA CHROM Workstation License	Contract № 88A from 22.08.2024
16.	Alt Virtualization Server 10 (for secondary vocational and higher education)	Contract № 14AC from 27.09.2024
17.	Dr.Web Desktop Security Suite Comprehensive Protection + Management Center for 12 months	Contract № 8 from 21.10.2024
18.	Software "Schedule for Educational Institutions"	Contract № 82A from 30.07.2024

List of freely distributed software

№	List of freely distributed software	Links to the license agreement
1.	The Yandex Browser	Free of charge License Agreement for the use of Yandex Browser software https://yandex.ru/legal/browser_agreement/
2.	Yandex.Teleconference	Free to distribute Software License Agreement https://yandex.ru/legal/telemost_mobile_agreement/
3.	Dr.Web CureIt!	Free to distribute Software License Agreement https://st.drweb.com/static/new-www/files/license_CureIt_ru.pdf
4.	OpenOffice	Free to distribute Software License Agreement http://www.gnu.org/copyleft/lesser.html
5.	LibreOffice	Free to distribute Software License Agreement https://ru.libreoffice.org/about-us/license/
6.	VK Calls	Free to distribute Software License Agreement https://vk.com/licence
7.	Kaspersky Free Antivirus	Free to distribute Software License Agreement 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

Name of the resource	Resource description	Access	Resource address
Electronic library systems			
"Student Consultant. Medical University Electronic Library"	For students and teachers of medical and pharmaceutical universities. Provides access to electronic versions of textbooks, teaching aids, and periodicals.	Remote access after registration under the university's profile	https://www.studentlibrary.ru/
MedBaseGeotar reference and	The MedBaseGeotar reference and information system is designed for	Remote access	https://mbasegeotar.ru/pages/index.html

information system.	medical practitioners, researchers, teachers, postgraduate students, residents, senior students, and healthcare managers to quickly search, select, and read medical literature in a single data source.	after registration under the university's profile	
ELS «Bookup»	The Great Medical Library is an information and educational platform for the joint use of electronic educational and methodological publications by medical universities in Russia and the CIS countries.	Remote access after registration under the university's profile	https://www.books-up.ru/
ELS «Lan'''	The Network Electronic Library of Medical Universities is an electronic database of educational and scientific works on medical topics, created with the aim of implementing network forms of professional educational programs and providing open access to educational materials for partner universities	Remote access after registration under the university's profile	https://e.lanbook.com/
CyberLeninka Scientific Electronic Library	CyberLeninka is a scientific electronic library based on the Open Science paradigm, whose main objectives are the popularization of science and scientific activity, public quality control of scientific publications, the development of interdisciplinary research, a modern institute of scientific review, increasing the citation of Russian science and building a knowledge infrastructure. It contains more than 2.3 million scientific articles.	free access	https://cyberleninka.ru/
Human Biology knowledge Base	Reference information on physiology, cell biology, genetics, biochemistry, immunology, and pathology. (Resource of the Institute of Molecular Genetics of the Russian Academy of Sciences.)	free access	http://humbio.ru/
The State Register of Medicines	The GRLS website contains information about medications, including indications, contraindications, mechanisms of	free access	https://grls.rosminzdrav.ru/GRLS.aspx

	action, side effects, dosages, and methods of use.		
Information systems			
Rubricator of clinical recommendations	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 guidelines, nomenclatures, and other reference materials.	The link to download the app	https://cr.minzdrav.gov.ru/#/
Federal Electronic Medical Library (FEML)	The Federal Electronic Medical Library is part of the unified state information system in the healthcare sector as a reference system. The Federal Electronic Medical Library 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)	The volume of the collection: about 3 million titles The period of coverage: from the 11th century to the present day The electronic library of the Russian State Library is a collection of electronic copies of valuable and most frequently requested publications from the collections of the Russian State Library, from external sources, as well as documents that were originally created in electronic form.	Registration on the website	https://www.rsl.ru/
Russian Medical Association	Professional Internet resource. Purpose: to facilitate the effective professional activities of medical personnel. Contains the charter, personal data, structure, rules of admission, and information about the Russian Medical Union.	free access	http://www.rmass.ru/
Web medicine	The website provides a directory of professional medical resources, including links to the most authoritative thematic websites, journals, societies, as well as useful documents and programs. The website is intended for doctors, students, employees of medical universities and research institutions.	free access	http://webmed.irkutsk.ru/

Databases			
World Health Organization	The website contains news, statistics on countries that are members of the World Health Organization, newsletters, reports, WHO publications, and 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 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 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 National Library of Belarus, it covers the entire collection since 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 works from institutions, conference materials, etc. Thematically, the database covers all areas of medicine and related fields of biology, biophysics, biochemistry, psychology, etc.	free access	https://rucml.ru/
PubMed	Text database of medical and biological publications in English. The PubMed database is an electronic search system with free access to 30 million publications from 4,800 indexed journals on medical topics. The database contains articles published from 1960 to the present day, including information from	free access	https://pubmed.ncbi.nlm.nih.gov/

	MEDLINE, PreMEDLINE, and NLM. Every year, the portal is updated with more than 500,000 new articles.		
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. On the platform eLIBRARY.RU are available electronic versions of more than 2000 Russian scientific and technical journals, including more than 1000 journals in open access.	The full functionality of the site is available after registration	http://elibrary.ru/defaultx.asp
Electronic Library of Dissertations (Russian State Library)	Currently, the Russian State Library's Electronic Library of Dissertations contains over 919,000 full-text 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
The official Internet portal of legal information	The Unified Official State Information and Legal Resource in Russia.	free access	http://pravo.gov.ru/