

## Educational program "6B10101 – General medicine"

1. General information about the discipline			
1.1	Code of the module "Health and disease": POS 3202-2; POS 3202-1; PVB 3302-2; PDB 3303-2; Farm 3301-2 Names of disciplines: 1. Propaedeutic of internal diseases. 2. Propaedeutics of childhood diseases-2 3.Pathological Physiology of organs and systems 4.Pathology of organs and systems 5.Pharmacology-2	1.6	Academic Year: 2023-2024
1.2	Module name: Human and disease	1.7	Course: 3
1.3	Prerequisites: «Introduction to the clinic" Module "Morphology and physiology"	1.8	Semester: VI
1.4	Post-requirements: "Fundamentals of internal diseases", "Fundamentals of surgical diseases", "Fundamentals of Obstetrics and Gynecology", "Fundamentals of childhood diseases"	1.9	Number of credits (ECTS): <b>25</b>
1.5	Cycle:	1.10	Component: BD
2. The content of the discipline (no more than 50 words)			
The module provides for the study of the basics of semiotics, syndromology, basic parameters of laboratory research, questions of etiology, pathogenesis, morphogenesis, morphology of frequently occurring pathological processes of organs and systems, acquisition of skills in choosing medicines for major syndromes of internal diseases, which will allow the future specialist to apply the knowledge gained for the diagnosis, treatment, prevention of diseases, acquire skills of clinical thinking and research			
3. Summative assessment form			
3.1	MCQ test +	3.5	Coursework
3.2	Written	3.6	Essay
3.3	Verbal	3.7	Project
3.4	OSPE/OSE or reception of practical skills +	3.8	Other (specify)
4. Module objectives			
Formation of a holistic view of the main symptoms and syndromes of diseases of internal organs and systems, as well as methods of their research. Ensuring the achievement of final learning outcomes based on the joint study of propaedeutic of internal and pediatric diseases with fundamental disciplines. Formation of clinical thinking skills based on knowledge of the pathophysiological mechanisms of the course, path anatomic changes, complications and outcome of diseases, physical and clinical laboratory methods of examinations and the choice of medicines in adults and children with the main clinical syndromes of internal diseases. Formation of research skills by analyzing scientific articles, performing experimental research and project activities.			
5. Final learning outcomes (LO module)			
LO 1	Demonstrates knowledge and understanding of the basics of semiotics and syndromology, etiology, pathogenesis and morphogenesis of pathological changes in organs and systems		
LO 2	Knows the methods of questioning, physical examination of adults and children, uses clinical thinking in collecting information when drawing up a survey plan; outlines the scope of basic and additional		

	studies to clarify the lesion syndrome					
LO 3	Uses clinical thinking in collecting information when interpreting the results of morphological, laboratory and instrumental methods of examination of patients with diseases of internal organs and systems; formulates a syndromic diagnosis; fills out a medical history					
LO 4	Communicates information, ideas, problems and solutions to patients and their family members, knows the norms of ethics and deontology in communicating with patients, their relatives and colleagues					
LO 5	Determines pathological processes at the organ and cellular levels, interprets data on the pathophysiology and morphology of diseases taking into account the clinical data of patients, makes conclusions, explains the patterns of complications and outcomes of pathology of organs and systems, evaluates the results of experimental studies					
LO 6	Selects medicines in accordance with the diagnosis, prescribes prescriptions, determines the dosage regimen, recognizes the undesirable effects of medicines, predicts the development of side effects and drug interactions					
LO 7	Formulates adequate research questions, critically evaluates professional literature, effectively uses international medical databases, executes a project, demonstrates a desire for continuous improvement of its activities					
<b>5.1</b>	<b>LO module</b>	<b>The results of the training of the EP, which are associated with the LO module</b>				
	LO 1 LO4	LO 1. Provides patient-centered care in the field of biomedical, clinical, epidemiological and socio-behavioral sciences for the most common diseases.				
	LO 4	LO 3. Adheres to the rules of ethics, deontology and subordination, demonstrates interpersonal and communication skills that lead to effective information exchange and cooperation with patients, their families and medical professionals.				
	LO2 LO6	LO 4. Conducts effective measures aimed at the diagnosis, treatment, prevention of common and early forms of diseases				
	LO3	LO 5. Performs professional duties, organizes self-monitoring and continuous improvement of its activities				
	LO7	LO 7. Applies scientific principles, methods and knowledge in medical practice and research. Capable of continuous self-education and development. Introduces new methods into the clinical practice				
	LO5	LO 9. Performs diagnostics, provides qualified and urgent medical care for urgent and life-threatening conditions				
<b>6.</b>	<b>Detailed information about the module</b>					
6.1	Location of classes: 1) Department of "Propaedeutic of internal Diseases": клиника «Park Health»; Phone: 87017386114; email address: <a href="mailto:propedevtica_vb@mail.ru">propedevtica_vb@mail.ru</a> 2) Department of Pediatrics-1:"The Regional Children's Clinical Hospital". Argynbekova 125. Email address: <a href="mailto:ped.rez@mail.ru">ped.rez@mail.ru</a> 3) Department of Pathology and Forensic Medicine: SKMA. Building 2, IV floor, auditorium -№404 а,в; №406; №407; №411 а,в. e-mail <a href="mailto:patan.gisto@mail.ru">patan.gisto@mail.ru</a> 4) Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology: SKMA, Al-Farabi Avenue 1, 4th floor, room No. 419,421,425,429,431,434,417, No. 4 lecture hall. Phone (ATS) 40-82-06, int. 227					
6.2	Number of hours of the module	Lectures	Prac.classes	Lab.classes	SIWT	SIW
		75	175		150	300
<b>7.</b>	<b>Information about teachers</b>					
№	Name	Degree and position	E-mail address	Scientific interests, etc..	Progress	

Departments: «Propaedeutics of Internal Diseases », «Pediatrics №1 », «Pathology and Forensic Medicine»,  
«Pharmacology, Pharmacotherapy And Clinical Pharmacology»

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Working curriculum (syllabus) on the module "Man and disease"

**Department of "Propaedeutics of internal Diseases"**

1	Bekmurzayeva Elmira Kuanyshevna	Head of the Department, MD, Professor	Elmira-bek@mail.ru	Scientific work: "Clinical and hygienic features of the formation of diseases of the digestive organs in workers of modern oil refining production (on the example of JSC "SHNOS")".	Author of more than 260 scientific and methodological publications, 2 textbooks, 9 textbooks. Certificate of therapist, gastroenterologist and rheumatology of the highest category. 2005 - Doctor of Medical Sciences, approved by the Higher Attestation Commission of the Republic of Kazakhstan (diploma GC No. 0000379), (14.00.50 – "Occupational Medicine"), Professor in the specialty "Medicine" (diploma PR No. 0000446), Higher Attestation Commission of the Republic of Kazakhstan. Under the leadership of E.K. Bekmurzayeva, 3 candidates of medical sciences were trained, who received approval from the Committee for Control and Certification in the Field of Education and Science of the Ministry of Education and
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Departments: «Propaedeutics of Internal Diseases », «Pediatrics №1 », «Pathology and Forensic Medicine»,  
«Pharmacology, Pharmacotherapy And Clinical Pharmacology»

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Working curriculum (syllabus) on the module "Man and disease"

					<p>Science of the Republic of Kazakhstan. Professor Bekmurzayeva E.K. graduated 6 masters in the specialty "Medicine", member of the Presidium of the Association of Therapists of the Republic of Kazakhstan, Honorary Professor of the European Scientific Society of Germany (ENN) (Hanover, Germany), full member of the European Academy of Natural Sciences (EAEN) (Hanover, Germany). Awarded for high scientific achievements with medals, diplomas and certificates: Robert Koch 2012, Peterkof 2014, Albert Schweitzer 2015, "Excellent Health Worker of the Republic of Kazakhstan", Republican grant of the Ministry of Education and Science of the Republic of Kazakhstan "The best University teacher - 2014 ". He has certificates from Cambridge</p>
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					University in "Communication Skills", the University of Nebraska (USA) in innovative teaching methods, KazGU in psychology and pedagogy, AGIUV in a competence-based approach to teaching. He has the highest qualification category of a general practitioner. Availability of patents and pre-patents, copyrighted inventions, state registration of intellectual property - 9: –patents and pre-patents - 3
2	Sadykova Gulzhan Saparovna	Candidate of Medical Sciences, acting Associate Professor	gulzhan2171@mail.ru	Scientific work: "hepatoprotective effect of pannuvladin in toxic hepatitis".	Author of more than 35 scientific and methodological publications, 8 textbooks, a certificate of a therapist of the highest category. The certificate of the specialist of the GP
3	Baidullaev Bahram Muzaffarovich	assistant	bbm2055@mail.ru	-	Author of more than 65 scientific and methodological publications, 6 textbooks. The certificate of the therapist of the highest category.
4	Ahaeva Laura Zhaksylykovna	Head teacher, assistant	Laura1990a00@mail.ru	-	Certificate of a specialist general

					practitioner. Author of 25 scientific publications.
5	Toktarova Gulnaz Abdimalikovna	assistant	Toktar_8585@mail.ru	-	Certificate of a specialist therapist, functional diagnostics, cardiology. Author of 8 scientific publications and co-author of 1 teaching manual.
6	Bathieva Madina Bekenovna	assistant	Madin_madina@mail.ru	-	Co-author of 1 study guide. International EAPTLS certificate. Certificate of a therapist.
7	Askar Zhansaya Mukhtarovna	assistant	Zhm.askar@mail.ru	-	GP certificate.
8	Amangeldieva Gulfayruz Seitimovna	assistant	Amangeldievag71@mail.ru	-	GP certificate.
<b>Department of ""</b>					
9	Mustafina Kenzhegul Akhmetovna	associate professor	sayat.mka@mail.ru	Pediatrics	Author of scientific publications more than 70 and 3 textbooks
10	Baimakhanova Bakhtygul Bimendeevna	associate professor	Bakhtigul059@mail.ru	Pediatrics, neonatology	Author of more than 40 scientific publications and 1 manual
11	Toleuova Akgulim Erbolatovna	assistant	ai_ol_ak.83@mail.ru	Pediatrics	Author of scientific publications - 15
<b>Department of "Normal and Pathological Physiology"</b>					
12	Bissimbayeva Saule Babatovna	Candidate of Medical Sciences, Acting Associate Professor	bisim baeva@ inbox.ru	Theme scientific guide - "hygienic justification of optimal treatment of pulmonary tuberculosis"	Author of 40 scientific publications, has prepared 2 pre- patents, 1 patent, 1 monograph and 2 acts of implementation of the results of research work
13	Kulbalieva	Candidate of	zhann_7@	The topic of the	The author of 40

	Zhannat Zhakslykovna	Medical Sciences, Acting Associate Professor	mail.ru	scientific direction "The influence of lead on the oxidative metabolism of lipids and blood proteins and its correction with biofenicol"	scientific publications, 1 teaching manual, has prepared 2 acts of implementation of the results of research work and 3 acts of implementation of the results of educational and methodological work
14	Medetbekova Dina Umurzakovna	Master of Medical Sciences, Senior Lecturer	allisok@bk.ru	The topic of the scientific direction "Medical and organizational aspects of the prevention of dermatomycosis among the population of the metropolis"	Author of 2 scientific publications
15	Berdalieva Gulmira Bakhytyzy	Senior Lecturer	Mira-3505@mail.ru	-	Author of 2 scientific publications
<b>Department of "Pathological Anatomy and Histology"</b>					
16	Sadykova Aliya Shamilevna	Head of the Department of Pathological Anatomy and Histology, MD, Acting Professor	aliya.sadykova.66@mail.ru	The topic of the scientific direction "Pathology of the immune system, pathological anatomy of tumors"	Author of 84 scientific publications, 5 textbooks, 1 patent for an invention, 1 monograph
17	Dosybayev Bakhytzhан Krykbaevich	Candidate of Medical Sciences, Acting Associate Professor	Krik85@mail.ru	The topic of the scientific direction "Prognostic assessment of the health of cement production workers"	Author of 14 scientific publications
18	Abildina Kalamkas Berzhanovna	Master, Assistant	Mskas1972@mail.ru	Theme of scientific direction "morphogenesis of atherosclerosis of the aortic and renal arteries of the population of Shymkent"	Author of 19 scientific publications 1 of the teaching and methodological manual
<b>Department of Pharmacology, Pharmacotherapy and Clinical Pharmacology</b>					
19	Ibragimova	Ph.D., Acting	aygul_ibr@mail.ru	"Problems of rational	Author of more



	Aigul Gaffarova	Associate Professor		use of medicines: effective and safe pharmacotherapy, pharmacoepidemiological, pharmacoconomical, pharmacogenetic aspects. Personalized therapy. Development of phytopreparations and effective phytotherapy of various diseases"	than 20 scientific papers, textbooks, methodological recommendations
20	Duisenbayeva Baktyly Talasbayevna	Teacher	baxtili_talabaeвна@mail.ru	Clinical pharmacology in pediatrics	Author of 45 scientific articles
21	Sultanbekova Aidana Nasirllakyzy	Teacher	arnur.ernur89@mail.ru	Clinical pharmacology in general medicine and pediatrics	Author of 3 scientific articles

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**Thematic plan**

Week	Topic name	Summary	LO Module	number of hours	Forms/ methods/ technologies	Assessment forms/ Methods
<b>№ 1 Nervous system</b>	<b>Lecture</b>					
	<b>1. Propaedeutics of internal diseases. (Leading clinical syndromes in neurology. Diagnostic value.)</b>	Principles of questioning, anamnesis collection and objective methods of examination of patients with leading clinical syndromes of the nervous system.	LO1	1	Overview lecture	Blitz survey on the topic
	<b>2. Propaedeutics of childhood</b>	Features of the lesion of the nervous system in children:	LO 1	1	Overview lecture	Blitz survey on the topic



	<b>diseases (Clinical syndromes in pediatric neurology.)</b>	convulsive syndrome, meningeal syndrome, syndromes of impaired consciousness and sleeping. The concept of neuroses. CNS lesions in newborns and children of the first year of life.				
	<b>3. Pathological physiology of organs and systems (Pathophysiology of the nervous system)</b>	Etiopathogenesis of nervous disorders. Neurodystrophic process. Neuron pathology. Generator of pathologically enhanced excitation, pathological determinant. Neurogenic movement disorders. Neurogenic sensitivity disorders. Pain. Antinociceptive system. Pathophysiological principles of prevention and therapy of disorders of the nervous system. Features of the development of pathology of the nervous system in childhood	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic
	<b>4. Pathological anatomy of organs and systems (Strokes, meningitis, encephalitis, CNS malformations and epilepsy).</b>	Cerebrovascular diseases. Strokes. Meningitis. Encephalitis. Epilepsy. Malformations of the central nervous system. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death.	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic
	<b>5. Pharmacology (Drugs used in diseases of the nervous system)</b>	Principles of drug therapy for stroke. General principles of pharmacotherapy of meningitis. Conservative treatment of epilepsy. Advantages of modern antiepileptic drugs, features of use in children of drugs used in parkinsonism. Features of use in children	LO 6	1	Overview lecture	Blitz survey on the topic
<b>Practical classes</b>						

<p><b>1. Propaedeutics of internal diseases. (Leading clinical syndromes in neurology. Diagnostic value.)</b></p>	<p>Principles of questioning, anamnesis collection and an objective method of investigation of patients with leading clinical syndromes (meningeal and cerebrovascular disorders) of the nervous system.</p>	<p>LO 2 LO 3</p>	<p>2</p>	<p>Discussion of the topic of the lesson, the solution of mastering practical skills</p>	<p>Checklist of an oral survey, mastering practical skills.</p>
<p><b>2. Propaedeutics of childhood diseases (Clinical syndromes in pediatric neurology. Pathological change in the psychoemotional status of a child with COVID-19.)</b></p>	<p>The principles of questioning, anamnesis collection and an objective method of studying sick children of different age groups with nervous system disorders. Features of clinical methods of examination of children (assessment of the level of neuropsychic development of the child according to age, assessment of consciousness, rigidity of the occipital muscles sign, Kernig sign, Brudzinsky sign).</p>	<p>LO 2 LO 3</p>	<p>2</p>	<p>Discussion of the topic of the lesson, mastering practical skills.</p>	<p>Checklist of an oral survey, mastering practical skills.</p>
<p><b>3. Pathological physiology of organs and systems (Pathophysiology of the nervous system)</b></p>	<p>Etiopathogenesis of nervous disorders. Neurodystrophic process. Neuron pathology. Generator of pathologically enhanced excitation, pathological determinant, pathological system. Neurogenic movement disorders. Neurogenic sensitivity disorders. Pain. Antinociceptive system. Pathophysiological principles of prevention and therapy of disorders of the nervous system. Features of the development of pathology of the nervous system in childhood</p>	<p>LO 1 LO 5</p>	<p>2</p>	<p>Performing practical work, solving case study, discussing the main issues of the topic, solving MCQs</p>	<p>Checklist, Feedback mutual evaluation of students by the «Sandwich» method</p>
<p><b>4. Pathological anatomy of organs and systems (Pathology of</b></p>	<p>Cerebrovascular diseases. Strokes. Meningitis. Encephalitis. Epilepsy. Etiology. Pathogenesis. Morphogenesis.</p>	<p>LO 1 LO 5</p>	<p>2</p>	<p>Discussion of the topic, study and description of macro-</p>	<p>Verification of descriptions of macro- and micro-</p>

	<b>the nervous system).</b>	Pathological anatomy. Complications. Causes of death.			and micro-preparations , macrophoto graphs and microphoto graphs	preparations , macro- and microphoto graphs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	<b>5. Pharmacology (Drugs used for diseases of the nervous system)</b>	Principles of drug therapy for stroke. General principles of pharmacotherapy of meningitis. Conservative treatment of epilepsy. Advantages of modern antiepileptic drugs, features of use in children. Drugs used in parkinsonism. Features of use in children.	LO 6	2	Working in small groups	Oral Discussion
<b>SIW</b>						
	1. Propaedeutics of internal diseases (Consultation on the implementation of SIW. SIW assignment: Project name:Development of a scheme (sample) of the medical history in order to improve the quality of knowledge among 3rd year students. Analysis of scientific articles.	Scientific articles on the following topics:meningitis, ischemic stroke, hemorrhagic stroke. Familiarization and analysis of the project:Development of a scheme (sample) of the medical history in order to improve the quality of knowledge among 3rd year students.	LO 4,5,6,7	2/4	Analysis of the project:Dev elopment of a scheme (sample)me dical history in order to improve the quality of knowledge among 3rd year students. Analysis and discussion of scientific articles (scientific articles on the topics: meningitis, ischemic stroke, hemorrhagi	Checklist. Feedback to each student using the "Sandwich" method.

					c stroke)	
	<p><b>2.Propaedeutics of children's diseases</b> (Consultation on the implementation of SIW. <b>Task SIW:</b> Behavioral and emotional disorders in children). Project: Development of a scheme (sample) of a medical history in order to improve the quality of knowledge among 3rd year students. Analysis of scientific articles.</p>	<p>Attention-deficit/hyperactivity disorder (ADHD) in children. Familiarization and analysis of the project: Development of a scheme (sample) of the medical history in order to improve the quality of knowledge among 3rd year students.</p>	<p>LO 4,5,6,7</p>	<p>2/4</p>	<p>Analysis and discussion of the project: Development of a scheme (sample) of the medical history in order to improve the quality of knowledge among 3rd year students.</p>	<p>Checklist. Feedback mutual evaluation of students by the «Sandwich» method</p>
	<p><b>3. Pathological physiology of organs and systems</b> (Consultation on the implementation of SIW topic:Malformations of the nervous system)</p>	<p>Malformations of the nervous system, types, causes and mechanisms of their formation</p>	<p>LO 1 LO 5 LO 7</p>	<p>2/5</p>	<p>Preparation and performing of the presentation</p>	<p>Performing of presentation</p>
	<p>4. Pathological anatomy of organs and systems (Consultation on the task of SIW SIW: Malformations of the central</p>	<p>Malformations of the nervous system. Types, causes and mechanisms of formation.</p>	<p>LO 1 LO 5 LO 7</p>	<p>2/4</p>	<p>Discussion of the topic; work with macro and microphotographs: description of macro and</p>	<p>Checking descriptions of macro and microphotographs by check lists/check lists</p>

	nervous system). Project: "Pathomorphology of urgent conditions"				microphoto graphs according to the scheme; Work on the project: drawing up a work plan	Feedback mutual evaluation of students by the «Sandwich» method
	<b>5. Pharmacology (Consultation on the implementation of SIW: Drugs used for strokes).</b> The project "Pharmacotherapy of emergency conditions" Analysis of scientific articles.	Modern methods of treatment of ischemic and hemorrhagic stroke.	LO 6 LO 7	2/ 4	Presentation preparation and defense. Work on the project: drawing up a work plan	Checklist for evaluation of a scientific article and project. Evaluation of the presentation of the topic
<b>№2 Respiratory system</b>	<b>Lecture</b>					
	1. Propaedeutics of internal diseases. Leading clinical syndromes (compaction of lung tissue, bronchial patency disorders, increased airiness in the lung) in pulmonology	Predisposing factors and causes leading to the development of pulmonary tissue compaction syndrome, bronchial patency disorders, increased airiness in the lung. Clinical features.	LO 1	1	Overview lecture	Blitz survey on the topic
	<b>2. Propaedeutics of childhood diseases</b> Pathological syndromes (pulmonary tissue compaction syndrome, bronchial patency	Predisposing factors and causes leading to the development of pulmonary tissue compaction syndrome, bronchial patency disorders, lung cavity syndrome, fluid accumulation in the pleural cavity. Clinical features in children of different age groups.	LO 1	1	Overview lecture	Blitz survey on the topic

	disorders, lung cavity syndrome, fluid accumulation in the pleural cavity) in pediatric pulmonology.					
	<b>3. Pathological physiology of organs and systems (Pathophysiology of external respiration)</b>	Violation of lung ventilation. Alveolar hypo- and hyperventilation. Obstructive and restrictive patterns. Diffusion defect. Lung perfusion defect. V/Q defects. Pulmonary hypertension. Disorders of the regulation of the respiratory center. Bronchoobstructive syndrome, concept, etiology, pathogenesis. Compaction of lung tissue, concept, etiology, pathogenesis. Increased airiness of the lungs (emphysema) concept, types, etiology, pathogenesis. Pathophysiological principles of prevention and therapy of respiratory disorders. Features of respiratory disorders in children	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic
	4. Pathological anatomy of organs and systems (Pathology of the respiratory system)	Acute and chronic bronchitis. Croup pneumonia. Bronchopneumonia. Bronchial asthma. Bronchiectasis. Emphysema of the lungs. Interstitial (restrictive) lung diseases. Covid – 19 associated pneumonia. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications.	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic

		Causes of death				
	<b>5. Pharmacology</b> (Medicines that affect the function of the respiratory system. Drugs used for bronchial patency disorder syndrome, compaction of lung tissue and increased airiness in the lung).	Drugs used for bronchial conduction disorder syndrome alpha and beta adrenostimulants, M-cholinoblockers, phosphodiesterase inhibitors, glucocorticosteroids. Drugs used for pulmonary tissue compaction syndrome: antibacterial therapy, antitussive and mucolytic drugs. Remedies used for the syndrome of increased airiness in the lung	LO 6	1	Overview lecture	Blitz survey on the topic
<b>Practical classes</b>						
	<b>1. Propaedeutics of internal diseases.</b> Leading clinical syndromes (compaction of lung tissue, bronchial patency disorders, increased airiness in the lung) in pulmonology. Diagnostic value.	Predisposing factors and causes leading to the development of pulmonary tissue compaction syndrome, bronchial patency disorders, increased airiness in the lung. Clinical features.	LO 2 LO 3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
	<b>2. Propaedeutics of childhood diseases</b> Clinical syndromes (lung tissue compaction, bronchial patency disorders, presence of a cavity in the	Predisposing factors and causes leading to the development of pulmonary tissue compaction syndrome, bronchial patency disorders, the presence of a cavity in the lung, accumulation of fluid and air in the pleural cavity, lung tissue cavity syndrome, lung tissue elevation syndrome. Clinical features	LO 2 LO 3	2	Discussion of the topic of the lesson, mastering practical skills	Checklist of an oral survey, mastering practical skills.



	lung, accumulation of fluid and air in the pleural cavity, lung tissue cavity syndrome, pulmonary tissue elevation syndrome) in pediatric pulmonology	in children of different age groups				
	<b>3. Pathological physiology of organs and systems</b> (Pathophysiology of external respiration)	Violation of lung ventilation. Alveolar hypo- and hyperventilation. Obstructive and restrictive patterns. Diffusion defect. Lung perfusion defect. V/Q defect. Pulmonary hypertension. Disorders of the regulation of the respiratory center. Bronchoobstructive syndrome, concept, etiology, pathogenesis. Compaction of lung tissue, concept, etiology, pathogenesis. Increased airiness of the lungs (emphysema) concept, types, etiology, pathogenesis. Pathophysiological principles of prevention and therapy of respiratory disorders. Features of respiratory disorders in children	LR 1 LR 5	2	Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method
	4. Pathological anatomy of organs and systems (Pathology of the respiratory system)	Acute and chronic bronchitis. Croup pneumonia. Bronchopneumonia. Bronchial asthma. Bronchiectasis. Emphysema of the lungs. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LO 1 LO 5	2	Discussion of the topic, study and description of macro- and micro-preparations, macrophoto graphs and microphoto graphs	Verification of descriptions of macro- and micro-preparations, macro- and microphoto graphs/ checklists Feedback mutual

						evaluation of students by the «Sandwich» method
	5. Pharmacology (Medicines that affect the function of the respiratory system. Drugs used for bronchial patency disorder syndrome, compaction of lung tissue and increased airiness in the lung).	Drugs used for bronchial conduction disorder syndrome alpha and beta-adrenostimulants, M-cholinoblockers, phosphodiesterase inhibitors, glucocorticosteroids. Drugs used in the syndrome of lung tissue compaction: antibacterial therapy, antitussive and mucolytic drugs. Drugs used for the syndrome of increased airiness in the lung.	LO 6	2	Working in small groups	Oral discussion, dose calculation, appointment
<b>SIW</b>						
	1. <b>Propaedeutics of internal diseases.</b> Consultation on the implementation of SRO. The task is URGENT Topic: Pulmonary tissue compaction syndrome, bronchial patency disorders, increased airiness in the lung).	Complaints, anamnestic features, examination and objective data of the patient. Laboratory and instrumental research methods for leading clinical syndromes of respiratory diseases.	LO 4,5,6,7	6 (2/4)	Performing practical skills.	Feed-back to each student using the "Sandwich" method. Practical skills assessment checklist.
	2. Propaedeutics of childhood diseases SIWT. Consultation on the implementation of SIW topic: Upper	Clinical features in children of different age groups.	LO 4,5,6,7	6 (2/4)	Reception of practical skills.	Feedback mutual evaluation of students by the «Sandwich» method, a checklist for assessing

	respiratory tract obstruction syndrome					practical skills
	<b>3. Pathological physiology of organs and systems</b> (SIWT. Consultation on the implementation of SIW topic: Malformations of the respiratory system)	Malformations of the respiratory system, types, causes and mechanisms of formation.	LO 1 LO 5	<b>6 (2/4)</b>	Preparation and performing of presentation	Protecting the presentation
	<b>4. Pathological anatomy of organs and systems</b> (SIWT. Consultation on the implementation of the <b>DEADLINE 2. Task SIW. (Pathology of the respiratory system)</b>	Interstitial (restrictive) lung diseases. Covid – 19 associated pneumonia. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LO 1 LO 5	<b>6 (2/4)</b>	Discussion of the topic, study and description of macro- and micro-preparations , macrophoto graphs and microphoto graphs.	Verification of descriptions of macro- and micro-preparations , macro- and microphoto graphs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	5. Pharmacology (SIWT. Consultation on the implementation of SIW. The task of the SIW: Drugs used for chronic obstructive pulmonary disease, chronic bronchitis, bronchiectatic disease.)	Drugs used for chronic obstructive pulmonary disease, chronic bronchitis, bronchiectatic disease	LO 6,7	7 (2/5)	Presentation preparation and defense.	Evaluation of the presentation of the topic
<b>№3</b>	<b>Lecture</b>					

<b>Respiratory system</b>	<b>1. Propaedeutics of internal diseases.</b> Leading clinical syndromes (presence of fluid and cavities in the lung, respiratory failure).	Predisposing factors and causes leading to the development of the syndrome of the presence of fluid and cavities in the lung, respiratory failure. Clinical features.	LO1	1	Overview lecture	Blitz survey on the topic
	<b>2. Propaedeutics of childhood diseases</b> Pathological syndromes (acute and chronic respiratory failure) in pediatric pulmonology. Respiratory failure syndrome in COVID-19.	Syndromes of acute and chronic respiratory failure. Clinical features in children of different age groups. Features of the course of pulmonological syndromes in a pandemic	LO1	1	Overview lecture	Blitz survey on the topic
	<b>3. Pathological physiology of organs and systems</b> (Pathophysiology of external respiration)	Syndrome of accumulation of fluid in the lung, concept, types, etiology, pathogenesis. Lung cavity syndrome, concept, etiology, pathogenesis. Insufficiency of external respiration, concept, types, etiology, pathogenesis, features in children. Pulmonary edema.	LO 1, LO 5	1	Overview lecture	Blitz survey on the topic
	<b>4. Pathological anatomy of organs and systems (Pathology of the respiratory system)</b>	Pulmonary edema. Hydrothorax. Lung cancer. Lung abscess. Pleurisy. Respiratory failure. Malformations of the lungs. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic
	<b>5. Pharmacology (Medicines that</b>	Drugs used in the syndrome of fluid accumulation,	LO6	1	Overview lecture	Blitz survey on the topic

	affect the function of the respiratory system. Drugs used for fluid accumulation syndrome, lung cavities and respiratory failure)	cavities in the lung and respiratory failure. The main mechanisms of action of drugs. Comparative characteristics. Indications for use. Side effects.				
<b>Practical classes</b>						
	<b>1. Propaedeutics of internal diseases.</b> Leading clinical syndromes (presence of fluid and cavities in the lung, respiratory failure). Diagnostic value.	Predisposing factors and causes leading to the development of the syndrome of the presence of fluid and cavities in the lung, respiratory failure. Clinical features.	LR2 LR3	<b>3</b>	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
	<b>2. Propaedeutics of childhood diseases</b> Clinical syndromes (acute and chronic respiratory failure) in pediatric pulmonology	Predisposing factors and causes leading to the development of acute and chronic respiratory failure syndrome. Clinical features in children of different age groups.	LO 2 LO 3	3	Discussion of the topic of the lesson, TBL	Checklist of the oral survey, testing
	<b>3. Pathological physiology of organs and systems</b> (Pathophysiology of external respiration)	Syndrome of accumulation of fluid in the lung, concept, types, etiology, pathogenesis. Lung cavity syndrome, concept, etiology, pathogenesis. Insufficiency of external respiration, concept, types, etiology, pathogenesis, features in children. Pulmonary edema.	LO 1, LO 5	3	Performing practical work, solving situational tasks, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method
	4. Pathological anatomy of	Pulmonary edema. Hydrothorax. Lung cancer.	LO 1, LO 5	<b>3</b>	Discussion of the topic,	Verification of

	organs and systems (Pathology of the respiratory system)	Lung abscess. Pleurisy. Malformations of the lungs. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death			study and description, macro- and micro-preparations , macrophoto graphs and microphoto graphs	descriptions of macro- and micro-preparations , macro- and microphoto graphs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	5. Pharmacology (Medicines that affect the function of the respiratory system. Drugs used for fluid accumulation syndrome, lung cavities and respiratory failure)	Drugs used in the syndrome of fluid accumulation, cavities in the lung and respiratory failure. The main mechanisms of action of drugs. Comparative characteristics. Indications for use. Side effects.	LO 2,3,4,5	3	Working in small groups	Oral discussion, dose calculation, prescription writing
<b>SIW</b>						
	1. Propaedeutics of internal diseases. SROP. Syndromes of fluid and cavities in the lung, respiratory failure.	Complaints, anamnestic features, examination and objective data of the patient. Laboratory and instrumental research methods for leading clinical syndromes of respiratory diseases.	LO 4,5,6,7	6 (2/4)	Performing practical skills	Feedback mutual evaluation of students by the «Sandwich» method. Practical skills assessment checklist.
	<b>2.Propaedeutics of childhood diseases SIWT.</b> Consultation on the implementation of SIW <b>Topic and task of the SIW:</b>	Predisposing factors and causes leading to the development of neonatal RDS. Clinical manifestations.	LO 4,5,6,7	5 (2/3)	Reception of practical skills.	Feedback mutual evaluation of students by the «Sandwich» method, a checklist for assessing practical

	Respiratory distress syndrome of newborns					skills.
	<b>3. Pathological physiology of organs and systems</b> (Consultation on the implementation of SIW topic: (Respiratory distress syndrome)	Respiratory distress syndrome of newborns, etiopathogenesis, manifestations, difference from respiratory distress syndrome of adults. Therapy	LO1 LO5	6 (2/4)	Preparation and performing of Presentation	Performing presentation
	4. Pathological anatomy of organs and systems (SYRUP. Consultation on the implementation of SRO 3. SRO task. (Pathology of the respiratory system)	Tuberculosis. Pneumosclerosis. Respiratory distress syndrome. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LO1 LO5	6 (2/4)	Discussion of the topic; working with macro and microphotographs: description of macro and microphotographs according to the scheme;	Verification of descriptions of macro- and micro-preparations , macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich» method Checklist for PBL
	5. Pharmacology (SIWT. Consultation on the implementation of SIW. The task of the SIW: Drugs used for lung cavity syndrome)	Drugs used for lung cavity syndrome: Abscess, tuberculous cavity, echinococcal cyst.	LO 6,7	7 (2/5)	Preparation and defense of presentations, abstracts.	Checklist (presentation, abstract).
<b>№4 Cardiovascular system</b>	<b>Lectures</b>					
	1. Propaedeutics of internal diseases. Leading Clinical	Predisposing factors and causes leading to the development of high blood pressure syndrome and	LO 1	1	Overview lecture	Blitz survey on the topic



	Syndromes (High Blood Pressure and Coronary Heart Disease) in Cardiology	coronary heart disease Clinical features.				
	<b>2. Propaedeutics of childhood diseases</b> Features of clinical manifestations of valvular apparatus lesion syndrome in children	The main symptoms. Etiology. Risk factors . Distinctive symptoms of postcovid complications	LO 1	1	Overview lecture	Blitz survey on the topic
	<b>3. Pathological physiology of organs and systems</b> (Vascular tone disorders.)	Arterial hypertension. Primary arterial hypertension. Secondary hypertension. Vascular insufficiency. Pathophysiological principles of prevention and therapy of vascular tone disorders.	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic
	<b>4. Pathological anatomy of organs and systems</b> (Pathology of the cardiovascular system)	Hypertension. Atherosclerosis. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LO 1 LO 5	<b>1</b>	Overview lecture	Blitz survey on the topic
	5. Pharmacology (Drugs used for arterial hypertension and coronary heart disease).	Drugs used for hypertension: diuretics, beta blockers, alpha-1 blockers, direct vasodilators, calcium antagonists, ACE inhibitors, central alpha-2 adrenomimetics. Drugs used in coronary heart disease: antianginal agents, anticoagulants, antiplatelet agents, fibrinolytics, hypolipidemic drugs.	LO 6	1	Overview lecture	Blitz survey on the topic
<b>Practical classes</b>						
	1. Propaedeutics	Predisposing factors and	LO 2,3	<b>2</b>	Discussion	Checklist of

	of internal diseases. Leading clinical syndromes (high blood pressure and coronary heart disease) in cardiology. Diagnostic value.	causes leading to the development of high blood pressure syndrome and coronary heart disease Clinical features.			of the topic of the lesson, mastering practical skills.	an oral survey, mastering practical skills.
	<b>2.Propaedeutics of childhood diseases</b> Clinical syndrome of acute and chronic cardiac and vascular insufficiency in children.	Questioning of a sick child or parent and a general examination of a child with heart failure. Signs of acute and chronic circulatory insufficiency in children of different age groups. The main symptoms of myocardial damage: cardiac arrhythmias, heart failure, thromboembolic complications.	LO 2,3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
	<b>3. Pathological physiology of organs and systems</b> (Vascular tone disorders.)	Arterial hypertension. Primary arterial hypertension. Secondary hypertension. Vascular insufficiency. Pathophysiological principles of prevention and therapy of vascular tone disorders.	LO 1 LO 5	2	Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method
	<b>4.Pathological anatomy of organs and systems (Pathology of the cardiovascular system)</b>	Hypertension. Atherosclerosis. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LO 1 LO 5	2	Discussion of the topic, study and description , macro- and micro-preparations, macrophot	Verification of descriptions of macro- and micro-preparations , macro- and microphotographs/ checklists

					ographs and microphotographs	Feedback mutual evaluation of students by the «Sandwich» method
5. Pharmacology (Drugs used for arterial hypertension and coronary heart disease)	Drugs used for hypertension: diuretics, beta blockers, alpha-1 blockers, direct vasodilators, calcium antagonists, ACE inhibitors, central alpha-2 adrenomimetics. Drugs used for coronary heart disease: antianginal agents, anticoagulants, antiplatelet agents, fibrinolytics, hypolipidemic drugs.	LO 2,3,4,5	2	Working in small groups		Oral discussion, dose calculation, prescription writing
<b>SIW</b>						
<b>1.Propaedeutics of internal diseases. SROP. Consultation on the implementation of SRO. SRO task</b> <b>Topic: High blood pressure syndromes and coronary heart disease.</b>	Complaints, anamnestic features, examination and objective data of the patient. Laboratory and instrumental research methods for leading clinical syndromes of diseases of the cardiovascular system.	LO 4,5,6,7	6 (2/4)	Performing practical skills.		Feed-back to each student using the "Sandwich" method. Practical skills assessment checklist.
<b>2.Propaedeutics of childhood diseases SIWT.</b> Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> Hypertension and hypotension syndrome in childhood:	Definition of arterial hypertension. Causes and risk factors of hypertension. Symptoms and diagnosis of hypertension in children. The concept of hypertensive and hypotonic crisis	LO 4,5,6,7	6 (2/4)	Reception of practical skills.		Обратная связь с каждым студентом с использованием метода "сэндвича". Контрольный список для оценки практических

	primary and symptomatic					НАВЫКОВ.
	<b>3. Pathological physiology of organs and systems</b> Consultation on the implementation of SIW topic: (Atherosclerosis )	Atherosclerosis, etiopathogenesis, manifestations, complications.	LO 1 LO 5	6 (2/4)	Preparation and performing of presentation	Performing of presentation
	<b>4. Pathological anatomy of organs and systems (Consultation on the implementation of SRO)</b> 4. SRO task.(Pathology of the cardiovascular system)	Cardiomyopathies – primary and secondary. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR1 LR 5	<b>7 (2/5)</b>	Discussion of the topic; work with macro and microphot ographs: description of macro and microphot ographs according to the scheme; on the topic.	Verification of descriptions of macro- and micro- preparations , macro- and microphoto graphs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	5.armacology (SIWT. Consultation on the implementation of SIW: Drugs used in acute coronary syndrome.	Drugs used in acute coronary syndrome.	LO 6,7	7 (2/5)	Defense presentation s, abstracts.	Checklist (presentation, abstract).
<b>№5The heart – vascular system</b>	<b>Lectures</b>					
	1. Propaedeutics of internal diseases. Leading clinical syndromes (acute and chronic coronary insufficiency).	Predisposing factors and causes leading to the development of acute and chronic coronary insufficiency syndrome. Clinical features.	LR1	1	Overview lecture	Blitz survey on the topic

<p><b>2. Propaedeutics of childhood diseases</b> Syndromes of the most common congenital heart defects.</p>	<p>Congenital heart defects: definition of the concept, varieties, causes, features of hemodynamics.</p>	<p>LO 1</p>	<p>1</p>	<p>Overview lecture</p>	<p>Blitz survey on the topic</p>
<p><b>3. Pathological physiology of organs and systems</b> (Coronary insufficiency. Cardiac arrhythmias)</p>	<p>Myocardial ischemia. Coronary artery disease. Myocardial infarction. Pathogenesis of reperfusion injury of the myocardium. Endogenous mechanisms of heart protection in ischemia and reperfusion. Pathophysiological principles of prevention and therapy of coronary insufficiency. Cardiac arrhythmias, types, etiopathogenesis, principles of therapy. Features of the development of cardiac arrhythmias in childhood</p>	<p>LO 1 LO 5</p>	<p>1</p>	<p>Overview lecture</p>	<p>Blitz survey on the topic</p>
<p><b>4. Pathological anatomy of organs and systems</b> (Pathology of the cardiovascular system)</p>	<p>Acute ischemic heart disease. Ischemic myocardial dystrophy. Myocardial infarction. Chronic ischemic heart disease. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death</p>	<p>LR1 LR5</p>	<p>1</p>	<p>Overview lecture</p>	<p>Blitz survey on the topic</p>
<p>5. Pharmacology (Drugs used for acute and chronic heart failure. Drugs used for arrhythmias)</p>	<p>Drugs used in acute and chronic heart failure: Cardiac glycosides, ACE inhibitors, diuretics, beta blockers. Antiarrhythmic drugs. Mechanism of action, indications, contraindications and side effects. Classification. Comparative characteristics of drugs and their use. Side effects.</p>	<p>LO1</p>	<p>1</p>	<p>Overview lecture</p>	<p>Blitz survey on the topic</p>

Practical classes					
1. Propaedeutics of internal diseases. Leading clinical syndromes (acute and chronic coronary insufficiency). Diagnostic value	Predisposing factors and causes leading to the development of acute and chronic coronary insufficiency syndrome. Clinical features.	LR 2,3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
<b>2. Propaedeutics of childhood diseases</b> Congenital and acquired carditis syndrome in children of different age groups.	Determination of congenital and acquired carditis syndrome in children. The main symptoms of carditis. Clinical features in children of different age groups.	LO 2,3	2	Discussion of the topic of the lesson.	Checklist of the oral survey. Testing
<b>3. Pathological physiology of organs and systems</b> (Coronary insufficiency. Cardiac arrhythmias)	Myocardial ischemia. Coronary artery disease. Myocardial infarction. Pathogenesis of reperfusion injury of the myocardium. Endogenous mechanisms of heart protection in ischemia and reperfusion. Pathophysiological principles of prevention and therapy of coronary insufficiency. Cardiac arrhythmias, types, etiopathogenesis, principles of therapy. Features of the development of cardiac arrhythmias in childhood.	LO 1 LO 5	2	Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method
<b>4. Pathological anatomy of organs and systems (Pathology of the cardiovascular system)</b>	Acute ischemic heart disease. Ischemic myocardial dystrophy. Myocardial infarction. Chronic ischemic heart disease. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1 LR 5	2	Discussion of the topic, study and description, macro- and micro-preparations, macrophotographs and microphotographs	Verification of descriptions of macro- and micro-preparations, macro- and microphotographs/ checklists Feedback mutual evaluation



						of students by the «Sandwich» method
5. Pharmacology (Drugs used for acute and chronic heart failure. Drugs used for arrhythmias)	Drugs used in acute and chronic heart failure: Cardiac glycosides, ACE inhibitors, diuretics, beta blockers. Antiarrhythmic drugs. Mechanism of action, indications, contraindications and side effects. Classification. Comparative characteristics of drugs and their use. Side effects	LO 3,4,5	2	Working in small groups		Oral discussion, dose calculation, prescription writing
SIW						
<b>1. Propaedeutics of internal diseases.</b> SROP. Consultation on the implementation of SRO. SRO task Topic: Syndrome s of acute and chronic coronary insufficiency.	Complaints, anamnestic features, examination and objective data of the patient. Laboratory and instrumental research methods for leading clinical syndromes of diseases of the cardiovascular system.	LR 4,5,6,7	6 (2/4)	Performing practical skills		Feed-back to each student according to the "Sanwich" method. Practical skills assessment checklist.
<b>2. Propaedeutics of children's diseases</b> SIWT. Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> Kawasaki-like syndrome.	Definition, clinical picture.	LO 4,5,6,7	6 (2/4)	Reception of practical skills.		Feed-back to each student according to the "Sanwich" method. Practical skills assessment checklist.
<b>3. Pathological physiology of organs and systems (Consultation</b>	Non-coronary heart pathology. Etiopathogenesis, manifestations, age-related features of	LO 1 LO 5	2/4	Preparation and performing of presentation		Protecting of presentation



	<b>on the implementation of SIW topic: (Non-coronary heart pathology)</b>	myocardiodystrophy, myocarditis, endocarditis, pericarditis, cardiomyopathy.				
	4. Pathological anatomy of organs and systems (SYRUP. Consultation on the implementation of SRO 5. SRO task.(Pathology of the cardiovascular system	Acute carditis. Pulmonary heart. Cardiosclerosis. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1 LR 5	<b>6 (2/4)</b>	Discussion of the topic; working with macro and microphotographs: description of macro and microphotographs according to the scheme;	Verification of descriptions of macro- and micro-preparations , macro- and microphotographs/ checklists Checklist for PBL Feedback mutual evaluation of students by the «Sandwich» method
	5. Pharmacology (SIWT. Consultation on the implementation of SIW: Drugs used for ventricular arrhythmias and prevention of sudden cardiac death)	Drugs used for ventricular arrhythmias and prevention of sudden cardiac death	LO 6,7	6 (2/4)	Defence of presentation s, abstracts.	Checklist (presentation, abstract).
<b>№6 Cardiovascular system</b>	<b>Lectures</b>					
<b>1. Propaedeutics of internal diseases.</b> Leading clinical syndromes (lesions of the valvular apparatus).	Predisposing factors and causes leading to the development of valvular apparatus lesion syndrome. Clinical features.	LR 1	1	Overview lecture	Blitz survey on the topic	
<b>2.Propaedeutics of childhood</b>	The syndrome of damage to the valvular heart apparatus	LO 1	1	Overview lecture	Blitz survey on the topic	

	<p><b>diseases</b> Diagnosis of acute and chronic heart failure in children. Kawasaki syndrome in COVID-19</p>	<p>in children, definition. The main clinical manifestations.</p>				
	<p><b>3. Pathological physiology of organs and systems (Acquired heart defects. Heart failure.)</b></p>	<p>Acquired heart defects. Mitral and aortic valve insufficiency, mitral stenosis, aortic stenosis, tricuspid valve defects, hemodynamic disorders with these defects, manifestations. Heart failure, classification, etiopathogenesis, manifestations, age characteristics. Mechanisms of hemodynamic compensation in heart failure. Intra- and extracardial mechanisms of compensation of heart function. The Frank-Starling law. Myocardial hypertrophy. Mechanisms of decompensation of heart failure</p>	<p>LO 1 LO 5</p>	<p>1</p>	<p>Overview lecture</p>	<p>Blitz survey on the topic</p>
	<p><b>4. Pathological anatomy of organs and systems (Pathology of the cardiovascular system)</b></p>	<p>Rheumatism. Congenital and acquired heart defects. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death</p>	<p>LR 1 LR 5</p>	<p>1</p>	<p>Overview lecture</p>	<p>Blitz survey on the topic</p>
	<p>5. Pharmacology (Drugs used in the syndrome of damage to the valve apparatus)</p>	<p>The means used in the syndrome of damage to the valve apparatus. ACE inhibitors, A2 receptor antagonists, beta-blockers,</p>	<p>LO 6</p>	<p>1</p>	<p>Overview lecture</p>	<p>Blitz survey on the topic</p>

		aldosterone receptor antagonists, diuretics, cardiac glycosides.				
Practical classes						
	1. Propaedeutics of internal diseases. Leading clinical syndromes (lesions of the valvular apparatus). Diagnostic value.	Predisposing factors and causes leading to the development of valvular apparatus lesion syndrome. Clinical features.	LR 2,3	3	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
	<b>2. Propaedeutics of children's diseases</b> Clinical syndromes of damage to the valvular apparatus in children. Syndromes of the most common congenital heart defects.	The syndrome of damage to the valvular apparatus of the heart is the definition of the concept. The main clinical manifestations. Congenital heart defects – definition of the concept, varieties, features of hemodynamics	LO 2, 3	3	Discussion of the topic of the lesson, mastering practical skills, analysis of scientific articles	Checklist of an oral survey, mastering practical skills.
	<b>3. Pathological physiology of organs and systems</b> (Acquired heart defects. Heart failure.)	Acquired heart defects. Mitral and aortic valve insufficiency, mitral stenosis, aortic stenosis, tricuspid valve defects, hemodynamic disorders with these defects, manifestations. Heart failure, classification, etiopathogenesis, manifestations, age characteristics. Mechanisms of hemodynamic compensation in heart failure. Intra- and extracardial mechanisms of compensation of heart function. The Frank-Starling mechanism. Myocardial hypertrophy. Mechanisms of decompensation of heart	LO 1 LO 5	3	Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method

		failure				
	<b>4. Pathological anatomy of organs and systems</b> (Pathology of the cardiovascular system)	Rheumatism. Acquired heart defects. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death. Morphology of acute and chronic heart failure. Right and left ventricular failure. Decompensation of cardiac activity	LR 1 LR 5	3	Discussion of the topic, study and description of macro- and micro-preparations , macrophoto graphs and microphoto graphs	Verification of descriptions of macro- and micro-preparations , macro- and microphoto graphs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	5. Pharmacology (Drugs used in the syndrome of damage to the valve apparatus)	The means used in the syndrome of damage to the valve apparatus. ACE inhibitors, A2 receptor antagonists, Beta-blockers, aldosterone prescription antagonists, diuretics, cardiac glycosides	LO 5,6	3	Working in small groups	Oral interview. Solving test tasks and situational tasks. Prescription writing
<b>SIW</b>						
	1. Propaedeutics of internal diseases SROP. Consultation on the implementation of SRO. SRO task Project protection: Development of a scheme (sample) of a medical history in order to improve the quality of knowledge among 3rd year students.	Project topic: Development of a scheme (sample) of the medical history in order to improve the quality of knowledge among 3rd year students. Protection of the medical history.	LR 4,5,6,7	6 (2/4)	Project protection: Development of a scheme (sample) of a medical history in order to improve the quality of knowledge among 3rd year students. Protection of the medical history.	Feed-back to each student using the "Sandwich" method. Checklist

	Protection of medical history					
	<p><b>2. Propaedeutics of childhood diseases SIWT.</b> Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> Congenital heart defects.</p>	<p>Congenital heart defects in children of different age groups, stages of embryonic development of the heart. Diagnostic algorithm.</p>	<p>LO 4,5,6,7</p>	<p>5 (2/3)</p>	<p>Project protection: Development of a scheme (sample) of a medical history in order to improve the quality of knowledge among 3rd year students. Protection of medical history.</p>	<p>Checklist for evaluation of analysis, analysis of scientific articles</p>
	<p><b>3. Pathological physiology of organs and systems (Consultation on the implementation of SIW topic: (Congenital heart defects)</b></p>	<p>Congenital heart defects, concept, types, causes. Mechanisms of formation</p>	<p>LO 1 LO 5 LO 7</p>	<p><b>6 (2/4)</b></p>	<p>Analysis of a scientific article, discussion and verification of work on the project</p>	<p>Checklist for evaluating the analysis of scientific articles Feedback mutual evaluation of students by the «Sandwich» method</p>
	<p><b>4. Pathological anatomy of organs and systems (SYRUP. Consultation on the implementation of SRO 6. SRO task.</b></p> <p><b>Interim report on the implementation of the project</b></p>	<p>Congenital heart defects. Pathological anatomy.</p>	<p>LR 1,5,7</p>	<p><b>6 (2/4)</b></p>	<p>analysis of a scientific article, discussion and verification of work on the project</p>	<p>Checklist for evaluating the analysis of scientific articles on the project being carried out Feedback mutual evaluation of students by the «Sandwich» method</p>

	5. Pharmacology (SIWT. Drugs used for Tetrado Fallo)  Interim report on the implementation of the project	1. The drugs used for Tetrad Fallot.	LO 6,7	7 (2/5)	analysis of a scientific article, discussion and verification of work on the project	Checklist for evaluating the analysis of scientific articles on the project being carried out
<b>№7 Digestiv e system</b>	<b>Lectures</b>					
	1. Propaedeutics of internal diseases. Leading clinical syndromes (gastric and intestinal dyspepsia).	Predisposing factors and causes leading to the development of gastric and intestinal dyspepsia syndrome. Clinical features.	LR 1	1	Overview lecture	Blitz survey on the topic
	<b>2. Propaedeutics of childhood diseases</b> Clinical syndromes of the digestive system in children of different age groups.	Syndromes of gastric and intestinal dyspepsia. Acute abdominal syndrome, gastroenterocolitic syndrome, lactase deficiency syndrome	LO 1	1	Overview lecture	Blitz survey on the topic
	<b>3. Pathological physiology of organs and systems (Pathophysiology of digestion. Digestive disorders in the stomach and intestines)</b>	Digestive insufficiency, the main causes, pathogenetic factors, pathophysiological principles of prevention and therapy. Etiology and pathogenesis of appetite disorders, salivation, chewing, dysphagia, digestive disorders in the stomach. Peptic ulcer of the stomach and duodenum, etiopathogenesis, manifestations, complications. Etiology and pathogenesis of primary and secondary malabsorption. Violation of the motor function of the intestine. Features of the development	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic

		of digestive disorders in children				
	<b>4. Pathological anatomy of organs and systems (Diseases of the gastrointestinal tract)</b>	Acute and chronic gastritis. Peptic ulcer of the stomach and duodenum. Appendicitis. Peritonitis. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1 LR 5	<b>1</b>	Overview lecture	Blitz survey on the topic
	5. Pharmacology (Drugs used for inflammatory diseases of the gastrointestinal tract and dyspepsia)	Agents affecting the motility of the gastrointestinal tract, antispasmodic agents laxatives and antidiarrheal agents Antimicrobial agents used for eradication therapy Antisecretory agents: proton pump inhibitors H2-histamine blockers, M-holinoblockers. Antacid and antisecretory agents. Gastroprotectors. Synthetic analogues of prostaglandins.	LO 6	1	Overview lecture	Blitz survey on the topic
<b>Practical classes</b>						
	1. Propaedeutics of internal diseases. Leading clinical syndromes (gastric and intestinal dyspepsia) in gastroenterology . Diagnostic value.	Predisposing factors and causes leading to the development of gastric and intestinal dyspepsia syndrome. Clinical features.	LR 2 LR 3	<b>2</b>	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
	<b>2. Propaedeutics of childhood diseases</b> Clinical syndromes of the digestive system in children of different age groups. Features of	Syndromes of gastric and intestinal dyspepsia. Acute abdominal syndrome, pain syndrome, gastroenterocolitic syndrome, lactase deficiency syndrome. Abnormalities of the gastrointestinal tract. Vomiting syndrome. Esophageal atresia, causes	LO 2, 3	2	Discussion of the topic of the lesson, TBL	Checklist of the oral survey, testing



	dyspeptic syndrome in COVID-19	of development, diagnosis.				
	<b>3. Pathological physiology of organs and systems (Pathophysiology of digestion. Digestive disorders in the stomach and intestines.)</b>	Digestive insufficiency, the main causes, pathogenetic factors, pathophysiological principles of prevention and therapy. Etiology and pathogenesis of appetite disorders, salivation, chewing, dysphagia, digestive disorders in the stomach. Peptic ulcer of the stomach and duodenum, etiopathogenesis, manifestations, complications. Etiology and pathogenesis of primary and secondary malabsorption. Violation of the motor function of the intestine. . Features of the development of digestive disorders in children	LO 1 LO 5	2	Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method
	<b>4. Pathological anatomy of organs and systems (Diseases of the gastrointestinal tract)</b>	Diverticulosis of the esophagus and intestines. Cancer of the esophagus. Acute and chronic gastritis. Peptic ulcer of the stomach and duodenum. Enteritis. Colitis. Crohn's disease. Appendicitis. Peritonitis. Benign and malignant intestinal tumors. Malformations of the gastrointestinal tract. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications.	LO 1, 5	2	Discussion of the topic, study and description of macro- and micro-preparations, macrophotographs and microphotographs	Verification of descriptions of macro- and micro-preparations, macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	5. Pharmacology (Drugs used for inflammatory diseases of the gastrointestinal tract and dyspepsia)	Agents affecting the motility of the gastrointestinal tract, antispasmodic agents laxatives and antidiarrheal agents Antimicrobial agents used for eradication therapy Antisecretory agents: proton	LO 6	2	Working in small groups	Oral discussion, dose calculation, prescription writing

		pump inhibitors H2-histamine blockers, M-holinoblockers. Antacid and antisecretory agents. Gastroprotectors. Synthetic analogues of prostaglandins. Features of use in children.				
SIW						
	<b>Integrated midterm examination No. 1 in the module "Human and disease"</b>	Integrated clinical case study + 2 questions for each discipline. Topics of lectures, practical classes, SIWT from 1 to 7 weeks in 5 disciplines	LO 1,2,3,4,5,6	10	Oral survey in 5 disciplines (cards)	Checklists for midterm examination
<b>№8 Digestive system</b>	Lectures					
	1. Propaedeutics of internal diseases. Leading clinical syndromes (jaundice and liver failure) in hepatology.	Predisposing factors and causes leading to the development of jaundice syndrome and liver failure. Clinical features.	LR 1	1	Overview lecture	Blitz survey on the topic
	<b>2. Propaedeutics of childhood diseases</b> Clinical syndromes of the hepatobiliary system in children of different age groups.	Symptoms, causes and diagnosis of jaundice, ascites, portal hypertension and liver failure syndromes	LO 1	1	Overview lecture	Blitz survey on the topic
	<b>3. Pathological physiology of organs and systems (Pathophysiology of the liver)</b>	Liver failure. The mechanism of the damaging effect of chemical, physical and biological factors on hepatocytes. Hepatic coma, concept, types, causes, main links of pathogenesis. Jaundice, concept, types, etiopathogenesis. Cholelithiasis, concept, pathogenesis. Pathophysiological principles of prevention and	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic

		therapy of liver pathology. Features of the development of liver pathology in childhood.				
	<b>4. Pathological anatomy of organs and systems (Pathology of the digestive system)</b>	Hepatitis. Alcoholic steatosis of the liver. Cirrhosis of the liver. Liver cancer. Pancreatitis. Pancreatic cancer. Cholecystitis is acute and chronic. Cholelithiasis. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1 LR 5	1	Overview lecture	Blitz survey on the topic
	5. Pharmacology (Drugs used in liver diseases, in the syndrome of external secretory insufficiency of the pancreas)	Drugs used in liver diseases: antibacterial therapy taking into account the antibioticogram, antispasmodics, cholereitics and cholekinetics, hepatoprotectors. Drugs used in violation of the excretory function of the pancreas. Means of substitution therapy used in case of insufficiency of pancreatic function. Features of use in children.	LO 6	1	Overview lecture	Blitz survey on the topic
<b>Practical classes</b>						
	1. Propaedeutics of internal diseases. Leading clinical syndromes (jaundice and liver failure) in hepatology. Diagnostic value.	Predisposing factors and causes leading to the development of jaundice syndrome and liver failure. Clinical features.	LR 2 LR 3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
	<b>2. Propaedeutics of childhood diseases</b> Clinical syndromes of the hepatobiliary system in	Symptoms, causes and diagnosis of jaundice, ascites, portal hypertension and liver failure syndromes.	LO 2, 3	2	Discussion of the lesson topic	Checklist of the oral survey. Testing

	children of different age groups.					
	<b>3. Pathological physiology of organs and systems (Pathophysiology of the liver. Criteria for clinical and laboratory diagnostics of various pathological types of jaundice)</b>	Liver failure. The mechanism of the damaging effect of chemical, physical and biological factors on hepatocytes. Hepatic coma, concept, types, causes, main links of pathogenesis. Jaundice, concept, types, etiopathogenesis. Cholelithiasis, concept, pathogenesis. Pathophysiological principles of prevention and therapy of liver pathology. Features of the development of liver pathology in childhood.	LO 1 LO 5	2	Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method
	<b>4. Pathological anatomy of organs and systems (Pathology of the digestive system)</b>	Hepatitis. Alcoholic steatosis of the liver. Cirrhosis of the liver. Liver cancer. Pancreatitis. Pancreatic cancer. Cholecystitis is acute and chronic. Cholelithiasis. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR1 LR5	2	Discussion of the topic, study and description of macro- and micro-preparations, macrophotographs and microphotographs	Verification of descriptions of macro- and micro-preparations, macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	5. Pharmacology (Drugs used in liver diseases, in the syndrome of external secretory insufficiency of the pancreas)	Drugs used in liver diseases: antibacterial therapy taking into account the antibioticogram, antispasmodics, cholereitics and cholekinetics, hepatoprotectors. Drugs used in violation of the excretory function of the pancreas. Means of substitution therapy used in case of insufficiency of pancreatic function.	LO6	2	Working in small groups	Oral discussion, dose calculation, prescription writing

	Classification. Mechanisms of action. Indications and contraindications. Ways of introduction. Side effects. Features of use in children.				
SIW					
1. Propaedeutics of internal diseases. Topic: Protection of practical skills in the respiratory and cardiovascular system	Performing practical skills (palpation, percussion, auscultation of the lungs and palpation, percussion, auscultation of the heart) on the respiratory and cardiovascular system.	LR 4,5,6,7	6 (2/4)	Protection of practical skills. Working with the Cyber patient platform	Practical skills assessment checklist.
<b>2. Propaedeutics of childhood diseases</b> <b>SIWT.</b> Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> Malabsorption syndrome in childhood.	Malabsorption and irritable bowel syndrome in children. Clinical manifestations	LO 4,5,6,7	6 (2/4)	Reception of practical skills Working with the Cyber patient platform	Checklist for evaluation of analysis, analysis of scientific articles
<b>3. Pathological physiology of organs and systems</b> <b>(Consultation on the implementation of SIW topic: (Malformations of the gastrointestinal tract and hepatobiliary system.)</b>	Malformations of the gastrointestinal tract and hepatobiliary system, types, causes and mechanisms of formation. Portal hypertension syndrome.	LO 1, 5,7	<b>6(2/4)</b>	analysis of scientific articles Working with the Cyber patient platform	Checklist
4. Pathological anatomy of organs and systems (SYRUP. Consultation	Malformations of the gastrointestinal tract and hepatobiliary system, types, pathological anatomy. Portal hypertension syndrome.	LR 1,5,7	<b>6(2/4)</b>	analysis of a scientific article	Feedback mutual evaluation of students by the «Sandwich»

	on the implementation of SRO 7. SRO task.(Pathology of the digestive system)					method
	5. Pharmacology (SIWT. Task SIW: Drugs used in the syndrome of intestinal and gastric dyspepsia. Drugs for Solinger–Elisson syndrome.Gastro protectors.)	Drugs used in the syndrome of intestinal and gastric dyspepsia. Drugs for Solinger – Elisson syndrome Gastroprotectors. Synthetic analogues of prostaglandins. Indications and contraindications. Side effects.Features of use in children. Drugs used for gastric ulcer.	LO 6	7 (2/5)	Protection of presentations, abstracts. Working with the Cyber patient platform	Checklist (presentation, abstract).
<b>№9 Urinary system</b>	<b>Lectures</b>					
	1. Propaedeutics of internal diseases. Leading clinical syndromes (dysuric, nephrotic, nephritic, hypertensive and renal insufficiency) in nephrology.	Predisposing factors and causes leading to the development of dysuric, nephrotic, nephritic, hypertensive syndromes and (acute and chronic) renal insufficiency.	LR 1	1	Overview lecture	Blitz survey on the topic
	<b>2.Propaedeutics of childhood diseases</b> Diagnosis of the main syndromes of the urinary system in children	Symptoms of urinary, nephrotic, nephritic, AKF, CKF syndromes	LO1	1	Overview lecture	Blitz survey on the topic
	<b>3. Pathological physiology of organs and systems (Pathophysiology of kidneys. Disorders of the function of the</b>	Violation of glomerular filtration and tubular reabsorption.Tubulopathy. The role of the kidneys in the violation of water-electrolyte metabolism and acid-base state. Renal and extrarenal disorders in	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic



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glomeruli and tubules.)	kidney pathology. Etiology and pathogenesis of nephritic and nephrotic syndrome. Renal insufficiency, types, etiopathogenesis, age-related features. Acute renal failure. Chronic renal failure. Uremia. Age-related features of renal dysfunction.				
4. Pathological anatomy of organs and systems (Genitourinary system)(Pathological anatomy of kidney diseases)	Glomerulopathy. Glomerulonephritis. Nephrotic syndrome. Amyloidosis of the kidneys. Tubulopathy. Pyelonephritis. Acute and chronic renal failure. Urolithiasis. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1 LR 5	1	Overview lecture	Blitz survey on the topic
5. Pharmacology (Drugs affecting the function of the urinary system)	Classification of drugs affecting the urinary system. Medications used for nephrotic, nephritic, dysuric syndrome. Drug therapy for acute renal failure and CRF. Mechanism of action. Indications for use. Contraindications.	LO 6	1	Overview lecture	Blitz survey on the topic
<b>Practical classes</b>					
1. Propaedeutics of internal diseases. Leading clinical syndromes (dysuric, nephrotic, nephritic, hypertensive and renal insufficiency) in nephrology. Diagnostic	Predisposing factors and causes leading to the development of dysuric, nephrotic, nephritic, hypertensive syndromes and (acute and chronic) renal insufficiency. Clinical features.	LR 2,3	3	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.



value.					
<b>2.Propaedeutics of childhood diseases</b> Clinical and laboratory characteristics of urinary, dysuric, nephritic and nephrotic syndromes in children of different age groups.	The main symptoms of urinary, dysuric, nephritic and nephrotic syndrome, acute and chronic kidney damage in children of different age groups. Methods and preparation of patients for laboratory and instrumental examination with urinary, dysuric, nephritic and nephrotic syndrome.	LO 2, 3	3	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
<b>3. Pathological physiology of organs and systems (Pathophysiology of kidneys. Disorders of the function of glomeruli and tubules)</b>	Violation of glomerular filtration and tubular reabsorption. Tubulopathy. The role of the kidneys in the violation of water-electrolyte metabolism and acid-base state. Renal and extrarenal disorders in kidney pathology. Etiology and pathogenesis of nephritic and nephrotic syndrome. Renal insufficiency, types, etiopathogenesis, age-related features. Acute renal failure. Chronic renal failure. Uremia. Age-related features of renal dysfunction.	LO 1,5	3	Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method
<b>4.Pathological anatomy of organs and systems (Urinary system) (Pathology anatomy of kidney diseases)</b>	Glomerulopathy. Glomerulonephritis. Nephrotic syndrome. Amyloidosis of the kidneys. Tubulopathy. Pyelonephritis. Acute and chronic renal failure. Urolithiasis. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1, 5	3	Discussion of the topic, study and description of macro- and micro-preparations , macrophotographs and microphotographs	Verification of descriptions of macro- and micro-preparations , macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich»

					method
5. Pharmacology (Drugs affecting the function of the urinary system)	Classification of drugs affecting the urinary system. Medications used for nephrotic, nephritic, dysuric syndrome. Drug therapy for acute renal failure and CRF. Mechanism of action. Indications for use. Contraindications.	LO6	3	Working in small groups	Oral discussion, dose calculation, prescription writing
<b>SIW</b>					
1. Propaedeutics of internal diseases. SROP. Consultation on the implementation of SRO. The task is URGENT Topic: Protection of practical skills in the gastrointestinal, urinary, hematopoietic, musculoskeletal, endocrine, nervous systems.	Protection of practical skills (palpation, percussion, auscultation) by systems: Gastrointestinal, urinary, hematopoietic, musculoskeletal, endocrine, nervous.	LR 4,5,6,7	6 (2/4)	Protection of practical skills. Working with the Cyber patient platform	Practical skills checklist. Feedback mutual evaluation of students by the «Sandwich» method.
<b>2. Propaedeutics of childhood diseases</b> SIWT. Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> Anomalies in the development of the urinary system.	Anomalies in the development of the urinary system.	LO 4,5,6,7	5 (2/3)	Protection of practical skills. Working with the Cyber patient platform	Checklist for evaluation of analysis, analysis of scientific articles
<b>3. Pathological physiology of organs and systems</b>	Malformations of the genitourinary system, types, causes and mechanisms of formation	LO 1,5	2/5	Preparation and performing of	Performing of presentation

	(Consultation on the implementation of the SIW topic: (Malformations of the genitourinary system))				presentation	
	<b>4. Pathological anatomy of organs and systems (Consultation on the implementation of SRO 9. Task SRO. Genitourinary system)</b>	Malformations of the genitourinary system. Ovarian apoplexy. Pathology of pregnancy and the postpartum period. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1,5	<b>7(2/5)</b>	Discussion of the topic; work with macro and microphotographs: description of macro and microphotographs according to the scheme; preparation of an electronic version on the topic Working with the Cyber patient platform	Verification of descriptions of macro- and micro-preparations, macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	<b>5. Pharmacology (SIWT. Consultation on the implementation of SIW. Drugs used for chronic renal failure)</b>	Drugs used for chronic renal failure	LO 6	7 (2/5)	Protection of presentations, abstracts. Working with the Cyber patient platform	Checklist (presentation, abstract).
<b>№10 The endocrine system</b>	<b>Lectures</b>					
	1. Propaedeutics of internal diseases. Leading clinical	Predisposing factors and causes leading to the development of hypo- and hyperthyroidism syndrome.	LR 1	1	Overview lecture	Blitz survey on the topic

<b>m</b>	syndromes (hypo - hyperthyroidism ) of endocrinology.					
	<b>2. Propaedeutics of childhood diseases</b> Diagnosis of the main syndromes of the endocrine system in children	Clinical manifestation of syndromes: hypo – hyperthyroidism, hypo – hyperglycemia.	LO 1	1	Overview lecture	Blitz survey on the topic
	<b>3. Pathological physiology of organs and systems (Pathophysiology of the endocrine system.)</b>	The main mechanisms of endocrine gland dysfunction. Violation of the central mechanisms of regulation. Violation of trans- and para-pituitary regulation. Feedback mechanism. Pathological processes in the gland itself: infectious processes and intoxication, tumor processes, genetically determined defects in hormone biosynthesis. Peripheral mechanisms of hormone activity disorders. Hypo- and hyperfunction of the pituitary gland. Panhypopituitarism. Hypo- and hyperfunction of the adrenal glands. Corticosteroid insufficiency. Hypo- and hyperfunction of the thyroid gland. Hypo- and hyperfunction of the parathyroid glands. Hypothyroidism concept, types, etiology, pathogenesis. Hyperthyroidism, concept, types, etiology, pathogenesis.	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic
	<b>4. Pathological anatomy of organs and systems (Pathology of</b>	Colloidal goiter. Parenchymal goiter. Endemic goiter. Sporadic goiter. Diffuse toxic goiter. Myxedema. Etiology.	LR 1 LR 5	<b>1</b>	Overview lecture	Blitz survey on the topic

<b>the anatomy of the endocrine system)</b>	Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death				
5. Pharmacology ((Drugs used in diseases of thyroid gland)	Drugs used for hypothyroidism in adults. Drugs used for hyperthyroidism, their effect on metabolism. Antithyroid drugs, beta-blockers, glucocorticosteroids. Indications and contraindications. Side effects.	LO 6	1	Overview lecture	Blitz survey on the topic
<b>Practical classes</b>					
1. Propaedeutics of internal diseases. Leading clinical syndromes (hypo - hyperthyroidism ) in endocrinology. Diagnostic value.	Predisposing factors and causes leading to the development of hypo– and hyperthyroidism syndrome. Clinical features.	LR 2,3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
<b>2.Propaedeutics of childhood</b> diseases Diagnosis of hypo - hyperthyroidism syndrome in children of different age groups.	Principles of questioning, anamnesis collection and an objective method of studying sick children of different age groups with hypo - hyperthyroidism	LO 2,3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
<b>3.Pathophysiology of organs and systems</b> (Pathophysiology of endocrine system)	The main mechanisms of endocrine gland dysfunction. Violation of the central mechanisms of regulation. Violation of trans- and para-pituitary regulation. Feedback mechanism. Pathological processes in the gland itself: infectious processes and intoxication, tumor processes, genetically	LO 1 LO 5	2	Performing practical work, solving case study, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method

		determined defects in hormone biosynthesis. Peripheral (extra-vascular) mechanisms of hormone activity disorders. Hypo- and hyperfunction of the pituitary gland. Panhypopituitarism. Hypo- and hyperfunction of the adrenal glands. Corticosteroid insufficiency. Hypo- and hyperfunction of the thyroid gland. Hypo- and hyperfunction of the parathyroid glands. Hypothyroidism concept, types, etiology, pathogenesis. Hyperthyroidism, concept, types, etiology, pathogenesis.				
	<b>4. Pathological anatomy of organs and systems (Endocrine system) (Pathology of the endocrine system)</b>	Colloidal goiter. Parenchymal goiter. Endemic goiter. Sporadic goiter. Diffuse toxic goiter. Myxedema. Hypothyroidism. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1, 5	<b>3</b>	Discussion of the topic, study and description of macro- and micro-preparations, macrophotographs and microphotographs	Verification of descriptions of macro- and micro-preparations, macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	<b>5. Pharmacology (Drugs used in thyroid diseases)</b>	Drugs used for hypothyroidism in adults. Drugs used in hyperthyroidism, their effect on metabolism. Antithyroid drugs, $\beta$ -blockers, glucocorticosteroids. Indications and contraindications. Side effects.	LO 6	2	Small group work	Oral interview. Solution of test tasks and situational problems. Prescription writing
SIW						

	<p><b>1. Propaedeutics of internal diseases.</b> <b>SIWT.</b> Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> Syndromes (hypo - hyperthyroidism ) in endocrinology.</p>	<p>Complaints, anamnestic features, examination and objective data of the patient. Laboratory and instrumental research methods for leading clinical syndromes of diseases of the endocrine system.</p>	<p>LR 4,5,6,7</p>	<p>6 (2/4)</p>	<p>Performing practical skills. Working with the Cyber patient platform</p>	<p>Feed-back to each student using the "Sandwich" method. Practical skills assessment checklist.</p>
	<p><b>2. Propaedeutics of children's diseases</b> <b>SIWT.</b> Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> Syndromes of hypo- and hyperparathyroidism in childhood</p>	<p>Clinical manifestations.</p>	<p>LO 4,5,6,7</p>	<p>6 (2/4)</p>	<p>Reception of practical skills. Working with the Cyber patient platform</p>	<p>Feedback mutual evaluation of students by the «Sandwich» method, a checklist for assessing practical skills.</p>
	<p><b>3. Pathological physiology of organs and systems</b> <b>Consultation on the implementation of SIW topic: (Malformations of the endocrine system)</b></p>	<p>Malformations of the endocrine system, types, causes and mechanisms of formation.</p>	<p>LO 1,5</p>	<p>2/4</p>	<p>Preparation and performing of presentation</p>	<p>Performing of presentation</p>
	<p>4. Pathological anatomy of organs and systems (SYRUP). Consultation on the implementation</p>	<p>Thyroid cancer. Autoimmune diseases of the thyroid gland. Hashimoto. Riddel. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy.</p>	<p>LR 1, 5</p>	<p><b>6(2/4)</b></p>	<p>Discussion of the topic; work with macro and micropho</p>	<p>Verification of descriptions of macro- and micro-preparations, macro- and microphoto</p>



	of SRO 10. The task of the SRO. (Pathology of the endocrine system)	Complications. Causes of death			tographs: description of macro and microphotographs according to the scheme; preparation of an electronic version on the topic. Working with the Cyber patient platform	graphs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	5. Pharmacology (SIWT. Consultation on the implementation of SIW: Drugs used for thyroid cancer. Autoimmune diseases of the thyroid gland. Hashimoto's craw. Riedel's goiter.)	Drugs used for thyroid cancer. Autoimmune diseases of the thyroid gland. Hashimoto's craw. Riedel's goiter.	LO 6	7 (2/5)	Presentation s, abstracts. Working with the Cyber patient platform	Checklist (presentation, abstract).
<b>№11 The endocrine system</b>	<b>Lectures</b>					
	1. Propaedeutics of internal diseases. Leading clinical syndromes (hypo - hyperglycemia) in endocrinology.	Predisposing factors and causes leading to the development of hypo– and hyperglycemia syndrome.	LR 1	1	Overview lecture	Blitz survey on the topic
	2. Propaedeutics of children's diseases Diagnosis of the	Symptoms, causes of hypoglycemic and hyperglycemic coma syndromes. Adrenogenital	LO 1	1	Overview lecture	Blitz survey on the topic

	main syndromes of the endocrine system in children	syndrome				
	<b>3. Pathological physiology of organs and systems (Pathophysiology of the intracretory function of the pancreas.)</b>	Disorders of the intracretory function of the pancreas. Diabetes mellitus, Concept,types,etiopathogenesis,complications	LO 1, 5	1	Overview lecture	Blitz survey on the topic
	<b>4. Pathological anatomy of organs and systems (Pathology of the endocrine system)</b>	Diabetes mellitus. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1, 5		Overview lecture	Blitz survey on the topic
	<b>5. Pharmacology (Drugs used for hyperglycemia and hypoglycemia)</b>	Drugs used for hyperglycemia and hypoglycemia. Drugs used for hypoglycemia syndrome.Mechanism of action, indications. Side effects.	LO 6	1	Overview lecture	Blitz survey on the topic
<b>Practical classes</b>						
	1. Propaedeutics of internal diseases. Leading clinical syndromes (hypo - hyperglycemia) in endocrinology. Diagnostic value.	Predisposing factors and causes leading to the development of hypo– and hyperglycemia syndrome. Clinical features.	LR 2,3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills
	<b>2.Propaedeutics of children's diseases</b> Diagnosis of hypo – hyperglycemia syndrome in children.	Principles of questioning, anamnesis collection and an objective method of studying sick children with hypo - hyperglycemic syndromes. Principles of diagnostics. Adrenogenital syndrome	LO 2, 3	2	Discussion of the lesson topic, oral survey	Checklist of the oral survey. Testing

<p><b>3. Pathological physiology of organs and systems (Pathophysiology of the intracretory function of the pancreas.)</b></p>	<p>Disorders of the intracretory function of the pancreas. Diabetes mellitus, concept, types, etiopathogenesis, complication.</p>	<p>LO 1 LO 5</p>	<p>2</p>	<p>Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs</p>	<p>Checklist Feedback mutual evaluation of students by the «Sandwich» method</p>
<p>4. Pathological anatomy of organs and systems (Pathology of the endocrine system)</p>	<p>Diabetes mellitus. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death</p>	<p>LR 1 LR 5</p>	<p>2</p>	<p>Discussion of the topic, study and description of macro- and micro-preparations , macrophoto graphs and microphoto graphs</p>	<p>Verification of descriptions of macro- and micro-preparations , macro- and microphoto graphs/ checklists Feedback mutual evaluation of students by the «Sandwich» method</p>
<p>5. Pharmacology (Drugs used for hyperglycemia and hypoglycemia)</p>	<p>Drugs used for hyperglycemia and hypoglycemia Drugs used for hypoglycemia syndrome. Mechanism of action, indications. Side effects.</p>	<p>LO 6</p>	<p>2</p>	<p>Working in small groups</p>	<p>Oral discussion, dose calculation, prescription writing</p>
<p>SIW</p>					
<p><b>1. Propaedeutics of internal diseases SROP. Consultation on the implementation</b></p>	<p>Complaints, anamnestic features, examination and objective data of the patient. Laboratory and instrumental research methods for leading clinical syndromes of diseases of the endocrine</p>	<p>LR 4,5,6,7</p>	<p>6 (2/4)</p>	<p>Performing practical skills Working with the Cyber patient</p>	<p>Feedback mutual evaluation of students by the «Sandwich» method, a</p>

<p><b>of SRO. SRO task</b> <b>Topic:</b> <b>syndromes (hypo - hyperglycemia) in endocrinology.</b></p>	<p>system.</p>			<p>platform</p>	<p>checklist for assessing practical skills.</p>
<p><b>2.Propaedeutics of children's diseases SIWT.</b> Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> Sex glands: sex formation and maturation.</p>	<p>Sex glands: sex formation and maturation. Classification. Estimates of puberty. Problems of obesity among children</p>	<p>LO 4,5,6,7</p>	<p>6 (2/4)</p>	<p>Performing practical skills Working with the Cyber patient platform</p>	<p>Feedback mutual evaluation of students by the «Sandwich» method, a checklist for assessing practical skills.</p>
<p><b>3. Pathological physiology of organs and systems</b> <b>Consultation on the implementation of SIW topic: (Autoimmune mechanisms of endocrine disorders)</b></p>	<p>Mechanisms of autoimmunization. Types of autoantibodies that damage the cells of the endocrine glands. Variants of binding of autoantibodies to receptors.</p>	<p>LO 1 LO 5</p>	<p>2/4</p>	<p>Preparation and performing of presentation</p>	<p>Performing of presentation</p>
<p><b>4. Pathological anatomy of organs and systems (SYRUP.</b> <b>Consultation on the implementation of SRO 11. SRO task.</b></p>	<p>Sepsis. Pathological anatomy.</p>	<p>LR 1 LR 5</p>	<p><b>6 (2/4)</b></p>	<p>Discussion of the topic; work with macro and microphotographs: description of macro and microphotographs according to the scheme; preparation of an</p>	<p>Verification of descriptions of macro- and micro-preparations, macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich» method</p>

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					electronic version on the topic. Working with the Cyber patient platform	
	5. Pharmacology SIWT. SIW task: Drugs used for adrenal insufficiency syndrome)	Drugs used for adrenal insufficiency syndrome. (glucocorticoids, mineralocorticoids) Mechanism of action, indications. Side effects. Features of use in childhood.	LO 6	6 (2/4)	Working with the Cyber patient platform	Checking the abstract for plagiarism, protecting the presentation
<b>№12 Hemato poietic system</b>	<b>Lectures</b>					
	1. Propaedeutics of internal diseases. Leading clinical syndromes (anemic) in hematology.	Predisposing factors and causes leading to the development of anemic syndrome.	LR 1	1	Overview lecture	Blitz survey on the topic
	<b>2. Propaedeutics of children's diseases</b> Features of manifestations of the main syndromes in pathologies of the hematopoietic system in children. Hematological syndrome in COVID-19	Clinical and laboratory symptoms of anemic and hemorrhagic syndrome in children.	LO 1	1	Overview lecture	Blitz survey on the topic
	<b>3. Pathological physiology of organs and systems (Pathophysiology of the blood system. Pathology of red blood cells)</b>	Anemia, etiology, classification, manifestations. Posthemorrhagic, hemolytic and dyserythropoietic anemia. Anemia in chronic diseases. Pathophysiological principles of prevention and therapy of anemia. Features	LO 1 LO 5	1	Overview lecture	Blitz survey on the topic

		of the development of anemia in childhood. Erythrocytosis. Pathological forms of red blood cells				
<b>4. Pathological anatomy of organs and systems (Hematopoietic system. Anemia (acute and chronic).)</b>	Anemia. Posthemorrhagic, deficient, hypo- and aplastic, hemolytic. Acute and chronic. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR1 LR 5	1	Overview lecture	Blitz survey on the topic	
5. Pharmacology (Agents affecting the blood system)	Drugs used for anemia syndrome. Classification. The mechanism of development. Comparative characteristics of drugs, application, side effects	LO 6	1	Overview lecture	Blitz survey on the topic	
<b>Practical classes</b>						
1. Propaedeutics of internal diseases. Leading clinical syndromes (anemic) in hematology. Diagnostic value.	Predisposing factors and causes leading to the development of anemic syndrome. Clinical features	LR 2,3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.	
<b>2. Propaedeutics of children's diseases</b> Clinical and laboratory diagnostics of anemic and hemorrhagic syndrome in children. Hematological syndrome in COVID-19	The principles of questioning, anamnesis collection and an objective method of studying sick children of different age groups with sanemic and hemorrhagic syndrome. Principles of diagnosis and laboratory characteristics of anemic and hemorrhagic syndrome in children.	LO 2,3	3	PBL	REED Checklist	
<b>3. Pathological physiology of organs and systems</b>	Anemia, etiology, classification, manifestations. Posthemorrhagic, hemolytic	LO 1 LO 5	3	Performing practical work, solving	Checklist Feedback mutual evaluation	

	<b>(Practical lesson. Pathophysiology of the blood system. Pathology of red blood cells.</b>	and dyserythropoietic anemia. Anemia in chronic diseases. Pathophysiological principles of prevention and therapy of anemia. Features of the development of anemia in childhood. Erythrocytosis. Pathological forms of red blood cells			case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs	of students by the «Sandwich» method
	<b>4. Pathological anatomy of organs and systems (Pathology of the hematopoietic system)</b>	Anemia. Posthemorrhagic, deficient, hypo- and aplastic, hemolytic. Acute and chronic. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1 LR 5	2	Discussion of the topic, study and description of macro- and micro-preparations , macrophotographs and microphotographs	Verification of descriptions of macro- and micro-preparations , macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	5. Pharmacology (Agents affecting the blood system)	Drugs used for anemia syndrome. Classification. The mechanism of development. Comparative characteristics of drugs, application, side effects.	LO 6	3	Working in small groups	Oral interview. Solving test tasks and situational tasks. Prescription writing
<b>SIW</b>						
	<b>1. Propaedeutics of internal diseases. SROP. Consultation on the implementation of SRO. SRO task Topic:</b>	Complaints, anamnestic features, examination and objective data of the patient. Laboratory and instrumental research methods for leading clinical syndromes of diseases of the hematopoietic system.	LR 4,5,6,7	6 (2/4)	Performing practical skills Working with the Cyber patient platform	Feedback mutual evaluation of students by the «Sandwich» method, a checklist for assessing practical



	<b>Syndromes (anemic) in hematology.</b>					skills.
	<b>2. Propaedeutics of children's diseases SIWT.</b> Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> Laboratory - instrumental characteristics of hemorrhagic and anemic syndrome in children.	Laboratory and instrumental characteristics in hemorrhagic and anemia syndrome in children. CBC and coagulogram indicators	LO 4,5,6,7	5 (2/3)	Performing practical skills Working with the Cyber patient platform	Feedback mutual evaluation of students by the «Sandwich» method, a checklist for assessing practical skills.
	<b>3. Pathological physiology of organs and systems (Consultation on the implementation of SIW topic: (Malformations of Hematopoietic system)</b>	Hemorrhagic syndrome. Thrombocytopenia and thrombocytopathy, concept, types, causes. Mechanisms of formation.	LO1 LO 5	<b>6 (2/4)</b>	Preparation and performing of presentation	Performing of presentation
	<b>4. Pathological anatomy of organs and systems (SYRUP. Consultation on the implementation of SRO 12. SRO task)</b>	Morphology of hemorrhagic syndrome. Thrombocytopenia and thrombocytopathy. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1,5	<b>6 (2/4)</b>	Discussion of the topic; work with macro and microphotographs: description of macro and microphotographs according to the scheme; preparation of an electronic	Verification of descriptions of macro- and micro-preparations, macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich» method "Sandwich"

					version on the topic. Working with the Cyber patient platform	
	<b>5. Pharmacology (SIWT. Consultation on the implementation of SIW. The task of the SIW. Drugs used for sickle cell anemia)</b>	Drugs used for sickle cell anemia	LO 6,7	7 (2/5)	Presentations, abstracts. Working with the Cyber patient platform	Checklist (presentation, abstract).
<b>№13 Hematopoietic system</b>	<b>Lectures</b>					
	1. Propaedeutics of internal diseases. Leading clinical syndromes (hemorrhagic and thrombocytopenic) in hematology.	Predisposing factors and causes leading to the development of hemorrhagic and thrombocytopenic syndromes.	LR 1	1	Overview lecture	Blitz survey on the topic
	<b>2. Propaedeutics of children's diseases</b> Diagnosis of the main syndromes in pathologies of the hematopoietic system in children	Principles of diagnosis and laboratory characteristics of myelo- and lymphoproliferative syndromes in children.	LO 1	1	Overview lecture	Blitz survey on the topic
	<b>3. Pathological physiology of organs and systems (Pathology of leukocytes. Hemostasis disorders.)</b>	Leukocytosis and leukopenia, types, causes, features of development in childhood. Pathological forms of leukocytes. Leukemoid reactions. Leukemia, etiopathogenesis, classification, principles of	LO 1, 5	1	Overview lecture	Blitz survey on the topic

	therapy. Features of the course of leukemia in children. Hemostasis disorders. Hemorrhagic diathesis and syndromes. Etiology and pathogenesis of thrombocytopenia, thrombocytopathies, vasopathies, coagulopathies. Thrombophilia. Pathophysiological principles of prevention and therapy of hemostasis disorders. Features of the development of hemostasis disorders in childhood				
<b>4. Pathological anatomy of organs and systems (Hematopoietic system)(Lymphoproliferative diseases)</b>	Acute and chronic leukemias, lymphomas. Lymphosarcoma, lymphogranulomatosis. Myeloma disease. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death	LR 1, 5	1	Overview lecture	Blitz survey on the topic
5. Pharmacology (Agents affecting the blood system)	Drugs used for hemorrhagic and myelo- and lymphoproliferative syndrome. Drugs used in chronic myeloid leukemia. Drugs used for multiple myeloma Features of use in children	LO 6	1	Overview lecture	Blitz survey on the topic
<b>Practical classes</b>					
1. Propaedeutics of internal diseases. Leading clinical syndromes (hemorrhagic and thrombocytopenic) in hematology. Diagnostic value.	Predisposing factors and causes leading to the development of hemorrhagic and thrombocytopenic syndromes. Clinical features.	LR 2,3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.
<b>2. Propaedeutics of children's</b>	Principles of questioning, anamnesis collection and an	LO 2,3	2	Discussion of the topic	Checklist of an oral

	<p><b>diseases</b> Clinical and laboratory characteristics of myelo- and lymphoproliferative syndrome in children.</p>	<p>objective method of investigation of patients with myelo - and lymphoproliferative syndromes. Principles of diagnosis and laboratory characteristics of myelo - and lymphoproliferative syndromes in children.</p>			<p>of the lesson, mastering practical skills.</p>	<p>survey, mastering practical skills.</p>
	<p><b>3. Pathological physiology of organs and systems (Pathology of leukocytes. Hemostasis disorders)</b></p>	<p>Leukocytosis and leukopenia, types, causes, features of development in childhood. Pathological forms of leukocytes. Leukemoid reactions. Leukemia, etiopathogenesis, classification, principles of therapy. Features of the course of leukemia in children. Hemostasis disorders. Hemorrhagic diathesis and syndromes. Etiology and pathogenesis of thrombocytopenia, thrombocytopathies, vasopathies, coagulopathies. Thrombophilia. Pathophysiological principles of prevention and therapy of hemostasis disorders. Features of the development of hemostasis disorders in childhood</p>	LO 1, 5	2	<p>Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs</p>	<p>Checklist Feedback mutual evaluation of students by the «Sandwich» method</p>
	<p><b>4. Pathological anatomy of organs and systems (Lymphoproliferative diseases)</b></p>	<p>Acute and chronic leukemias, lymphomas. Lymphosarcoma, lymphogranulomatosis. Myeloma disease. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Causes of death</p>	LR 1,5	2	<p>Discussion of the topic, study and description of macro- and micro-preparations , macrophotographs and microphotographs</p>	<p>Verification of descriptions of macro- and micro-preparations , macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich» method</p>

	<p><b>5.</b> Pharmacology (Agents affecting the blood system)</p>	<p>Drugs used for hemorrhagic and myelo- and lymphoproliferative syndrome. Drugs used in chronic myeloid leukemia. Drugs used for multiple myeloma Features of use in children.</p>	<p>LO 2,3,4,5</p>	<p>2</p>	<p>Working in small groups</p>	<p>Oral discussion, dose calculation, prescription writing</p>
	SIW					
	<p><b>1. Propaedeutics of internal diseases. SROP. Consultation on the implementation of SRO. SRO task</b> <b>Topic: Syndromes (hemorrhagic and thrombocytopenic) in hematology.</b></p>	<p>Complaints, anamnestic features, examination and objective data of the patient. Laboratory and instrumental research methods for leading clinical syndromes of diseases of the hematopoietic system.</p>	<p>LR 4,5,6,7</p>	<p>5 (2/3)</p>	<p>Performing practical skills</p>	<p>Feedback mutual evaluation of students by the «Sandwich» method, a checklist for assessing practical skills.</p>
	<p><b>2. Propaedeutics of children's diseases SIWT.</b> Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> The lymphoid system in children. Morphological and functional immaturity, factors of their compensation, research methods. Lymph node enlargement syndrome</p>	<p>Features of the lymphoid system in children of different age groups. Lymph node enlargement syndrome. Methods for determining lymphadenopathy.</p>	<p>LO 4,5,6,7</p>	<p>6 (2/4)</p>	<p>Performing practical skills</p>	<p>Feedback mutual evaluation of students by the «Sandwich» method, a checklist for assessing practical skills.</p>

	<b>3. Pathological physiology of organs and systems (Consultation on the implementation of SIW topic: (DIC syndrome)</b>	DIC-syndrome, etiopathogenesis, stages, manifestations, outcomes.	LO 1 LO 5	7(2/5)	Preparation and performing of presentation	Performing of presentation
	<b>4. Pathological anatomy of organs and systems (SYRUP. Consultation on the implementation of SRO 11. SRO task. Diseases of the hematopoietic system) Project protection</b>	DIC syndrome. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy	LR1,5	<b>6 (2/4)</b>	Discussion of the topic; work with macro and microphotographs: description of macro and microphotographs according to the scheme; preparation of an electronic version on the topic	Checking descriptions of macro and microphotographs by check sheets //check sheets Feedback mutual evaluation of students by the «Sandwich» method Checklist for PBL Checklist for the completed project
	<b>5. Pharmacology (SIWT. 1. SIW task Anticoagulant drugs. Drugs used for hereditary deficiency of clotting factors) Project protection</b>	Anticoagulant drugs. Drugs used for hereditary deficiency of clotting factors. Drugs used for hemorrhagic disease of newborns (vitamin K).	LO 6	7 (2/5)	Presentation s, abstracts.	Checklist (presentation, abstract, project)
	<b>Lectures</b>					
	<b>1. Propaedeutics of internal diseases. Leading clinical</b>	Principles of questioning, anamnesis collection and an objective method of investigation of patients	LR 1	1	Overview lecture	Blitz survey on the topic

<b>№14 Musculo skeletal system</b>	syndromes in rheumatology. Diagnostic value.	with leading clinical syndromes of the musculoskeletal system.				
	<b>2.Propaedeutics of children's diseases</b> Clinical syndromes of the musculoskeletal system in children.	Syndrome of hypotension and muscular system dystrophy in children of different ages. Symptoms of ossification and abnormalities of the bone system in children.	LO 1	1	Overview lecture	Blitz survey on the topic
	<b>3. Pathological physiology of organs and systems (Pathophysiology of the musculoskeletal system.)</b>	Inflammatory and dystrophic lesions of the musculoskeletal system. Hereditary and acquired osteopathies, osteoporosis and osteomalacia, osteoarthritis and arthritis, etiopathogenesis. Myopathy. Age-related features of pathology of the musculoskeletal system. Arthritis, concept, types, etiology, pathogenesis. Arthrosis, concept, types, etiology, pathogenesis.	LO 1,5	1	Overview lecture	Blitz survey on the topic
	<b>4. Pathological anatomy of organs and systems (Pathology of the musculoskeletal system)</b>	Rheumatoid arthritis. Osteoarthritis, osteoporosis. Etiology. Pathogenesis. Morphogenesis. Pathological anatomy. Complications. Issue.	LR 1,5	1	Overview lecture	Blitz survey on the topic
	<b>5. Pharmacology (Drugs used for diseases of the musculoskeletal system)</b>	Drugs used for osteoarthritis Drugs that affect the formation of the skeleton and regulate calcium-phosphorus metabolism. Drugs used for osteoarthritis. Nonsteroidal and steroid anti-inflammatory drugs. Basic drugs used for rheumatoid arthritis. Classification, mechanism of action,	LO 6	1	Overview lecture	Blitz survey on the topic



	indications, contraindications, side effects. Features of the application, in the age aspect.				
Practical classes					
1. Propaedeutics of internal diseases. Leading clinical syndromes in rheumatology. Diagnostic value.	Principles of questioning, anamnesis collection and an objective method of investigation of patients with leading clinical syndromes (arthritis and arthrosis) of the musculoskeletal system.	LR 2,3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills
<b>2. Propaedeutics of children's diseases</b> Clinical syndromes of the musculoskeletal system in children.	The principles of questioning, anamnesis collection and an objective method of studying sick children of different age groups with pathologies of the musculoskeletal system. Rickets-like syndrome. Osteomalacia.	LO 2,3	2	Discussion of the topic of the lesson	Checklist of the oral survey
<b>3. Pathological physiology of organs and systems (Pathophysiology of the musculoskeletal system)</b>	Inflammatory and dystrophic lesions of the musculoskeletal system. Hereditary and acquired osteopathies, osteoporosis and osteomalacia, osteoarthritis and arthritis, etiopathogenesis. Myopathy. Age-related features of pathology of the musculoskeletal system. Arthritis, concept, types, etiology, pathogenesis. Arthrosis, concept, types, etiology, pathogenesis.	LO 1,5	2	Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method
<b>4. Pathological anatomy of organs and systems (Pathology of the musculoskeletal system)</b>	Rheumatoid arthritis. Osteoporosis. Osteoarthritis. Osteomyelitis. Osteosarcoma. Myasthenia gravis. Etiology. Pathogenesis. Pathological anatomy. Complications.	LR 1,5	2	Discussion of the topic, study and description of macro- and micro-preparations,	Verification of descriptions of macro- and micro-preparations, macro- and microphoto

					macrophotographs and microphotographs	graphs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	5. Pharmacology (Drugs used for diseases of the musculoskeletal system)	Drugs used for osteoarthritis Drugs that affect the formation of the skeleton and regulate calcium-phosphorus metabolism. Drugs used for osteoarthritis. Nonsteroidal and steroid anti-inflammatory drugs. Basic drugs used for rheumatoid arthritis. Classification, mechanism of action, indications, contraindications, side effects. Features of the application, in the age aspect.	LO 6	2	Working in small groups	Oral discussion, dose calculation, prescription writing
<b>SIW</b>						
	<b>Integrated midterm examination No. 2 in the module "Human and disease"</b>	Integrated clinical case-studies + 2 questions for each discipline. Topics of lectures, practical classes, SIWT from week 8 to week 14 in 5 disciplines	LO 1,2,3,4,5,6	10	Oral survey in 5 disciplines (cards)	Checklists for midterm examination
<b>№15 Gerontology</b>	<b>Lectures</b>					
	<b>1. Propaedeutics of internal diseases. Features of clinical syndromes (diseases of internal organs and endocrine system, benign malignant neoplasms and</b>	Predisposing factors and causes leading to the development of leading clinical syndromes (diseases of internal organs and endocrine system, benign malignant neoplasms and mental disorders) in senile and elderly people. Clinical features.	LR1	1	Overview lecture	Blitz survey on the topic

	<b>mental disorders) in elderly and elderly people</b>					
	<b>2.Propaedeutics of children's diseases</b> Features of the structure of the skin and their appendages in children. Skin research methodology. Semiotics of skin lesions.	Clinical picture of primary and secondary morphological elements of the skin in children of different age groups.	LO 1	1	Overview lecture	Blitz survey on the topic
	<b>3. Pathological physiology of organs and systems (Features of leading syndromes in gerontology and geriatrics)</b>	Mechanisms of aging. Changes in organs in the aging process. Causes and mechanisms of development of leading syndromes in old age	LO1 LRO5	1	Overview lecture	Blitz survey on the topic
	<b>4. Pathological anatomy of organs and systems (Individual clinical syndromes senile and childish age)</b>	Atherosclerosis of cerebral vessels. Senile dementia. Alzheimer's disease. Skin diseases in children. Etiology. Pathogenesis. Pathological anatomy. Complications. Issue.	LR 1 LR 5	1	Overview lecture	Blitz survey on the topic
	<b>5. Pharmacology (Drugs used for Parkinsonism, Alzheimer's disease)</b>	Drugs used in parkinsonism. Principles of drug therapy for Alzheimer's disease. Pharmacotherapy of depressive syndrome	LO 1	1	Overview lecture	Blitz survey on the topic
<b>Practical classes</b>						
	1. Propaedeutics of internal diseases. Features of clinical syndromes (diseases of	Predisposing factors and causes leading to the development of leading clinical syndromes (diseases of internal organs and endocrine system, benign malignant neoplasms and	LR 2,3	2	Discussion of the topic of the lesson, mastering practical skills.	Checklist of an oral survey, mastering practical skills.

	internal organs and endocrine system, benign neoplasms and mental disorders) in senile and elderly people. Diagnostic value.	mental disorders) in senile and elderly people. Clinical features.				
	<b>2. Propaedeutics of children's diseases</b> Methods of skin and subcutaneous adipose tissue research. Semiotics of skin lesions, subcutaneous fat, appendages in children of different age groups	The principles of questioning, anamnesis collection and an objective method of studying sick children of different age groups with pathologies of the skin and their appendages. Assessment of the degree of development, distribution, consistency of fat, turgor of soft tissues, the presence of edema, emphysema. Insufficient, excessive fat deposition, lipomatosis, lipodystrophy, seals. Dystrophic, infectious and allergic skin changes, features of rashes in children	LO 2,3	3	Discussion of the topic of the lesson, mastering practical skills.	Checklist of the oral survey, the assimilation of practical skills
	<b>3. Pathological physiology of organs and systems (Features of leading syndromes in gerontology and geriatrics)</b>	Mechanisms of aging. Changes in organs in the aging process. Causes and mechanisms of development of leading syndromes in old age	LO 1 LO 5	3	Performing practical work, solving case-study, interpreting the results of clinical and laboratory studies, discussing the main issues of the topic, solving MCQs	Checklist Feedback mutual evaluation of students by the «Sandwich» method
	<b>4. Pathological anatomy of organs and systems</b>	Atherosclerosis of cerebral vessels. Senile dementia. Alzheimer's disease. Skin diseases in children.	LR 1,5	3	Discussion of the topic, study and description	Verification of descriptions of macro-

<b>(Individual clinical syndromes senile and childish age)</b>	Etiology. Pathogenesis. Pathological anatomy. Complications. Issue.			of macro- and micro-preparations , macrophoto graphs and microphoto graphs	and micro-preparations , macro- and microphoto graphs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
<b>5. Pharmacology (Drugs used for Parkinsonism, Alzheimer's disease)</b>	Drugs used in parkinsonism. Principles of drug therapy for Alzheimer's disease. Pharmacotherapy of depressive syndrome.	LO2,3, 4,5	3	Working in small groups	Oral discussion, dose calculation, prescription writing
<b>SIW</b>					
1. Propaedeutics of internal diseases. SROP. Consultation on the implementation of SIW. SIW task Topic: Protection of medical history. Analysis of a scientific article (Alzheimer's disease).	Correctly issue the title page and passport part of the medical history. Competently write complaints, anamnesis of the patient's life and illness, describe the general condition of the patient. Describe all systems by the algorithm (palpation, percussion, auscultation).	LR4,5, 6,7	5 (2/3)	Protection of the medical history. Analysis of a scientific article (Alzheimer's disease).	Medical history checklist. The checklist of a scientific article.
<b>2. Propaedeutics of childhood diseases SIWT.</b> Consultation on the implementation of SIW <b>Topic and task of the SIW:</b> Hypomelanosis and	Hypomelanosis and hypermelanosis in children. Vascular formations of the skin. Clinical picture, symptoms.	LO 4,5,6,7	5 (2/3)	Preparation and defense of the abstract, presentation of the topic	Checklist of the presentation of the topic, abstract

	hypermelanosis in children. Vascular formations of the skin.					
	<b>3. Pathological physiology of organs and systems</b> <b>Consultation on the implementation of SIW topic: (Individual clinical Syndromes of senile and childish age)</b>	Alzheimer's disease. Causes and mechanisms of development.	LO 5	6(2/4)	Preparation and performing of the presentation	Performing of presentation
	<b>4. Pathological anatomy of organs and systems (SYRUP. Consultation on the implementation of SRO 15. The task of the SIW (Individual clinical syndromes senile and childish age)</b>	Pathology of the skin and their appendages. Infectious and allergic skin changes	LR1,5	7 (2/5)	Discussion of the topic; work with macro and microphotographs: description of macro and microphotographs according to the scheme; preparation of an electronic version on the topic	Verification of descriptions of macro- and micro-preparations, macro- and microphotographs/ checklists Feedback mutual evaluation of students by the «Sandwich» method
	<b>5. Pharmacology</b> Consultation on the implementation of SIW Drugs used for ankylosing spondylitis	Drugs used for ankylosing spondylitis (Bechterew's disease)	LO 2,3,4,5	6 (2/4)	Preparation and defense of the abstract, presentation of the topic	Checklist of the presentation of the topic, abstract
	<b>OSPE/OSCE</b>	Integrated exam for 5 stations	LO 1,2,3,4,5,6		Integrated clinical situations	Checklist for OSPE/OSC

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	<b>Total:</b>	<b>750</b>				

<b>9. Training methods and forms of controls</b>		
9.1	Lectures	Lecture overview
9.2	Practical classes	Discussion of the lesson topic, acquisition of practical skills.
9.3	SIW	PBL. Project analysis. Sick historyavn to write. Analysis of scientific articles. Acquisition of practical skills
9.4	Midterm examination	ME1: integrated monitoring of educational achievements, carried out upon completion of the nervous, respiratory, cardiovascular and digestive(1) systems. ME2: integrated control of educational achievements, carried out upon completion of the digestive (2), urinary, hematopoietic, endocrine, musculoskeletal system.
9.5	Intermediate control Final control	MCQ test in 5 disciplines  OSPE, written exam
	PID	Stage 1 - Integrated reception of practical skills. Stage 2 - Written exam
	PCD	
	Pathological physiology	Stage 1 - Integrated reception of practical skills. Stage 2 - Written exam
	Pathological anatomy	Stage 1 - Integrated reception of practical skills. Stage 2 - Written exam
	Pharmacology	Stage 1 - Integrated reception of practical skills. Stage 2 - Written exam
9.6	Analysis of scientific articles	Analysis of a scientific article
9.7	Project execution	Project protection.For a perfectly executed project, incentives of + 10% are provided for the assessment of midterm examination No. 1,№ 2.

**10. Evaluation criteria****10.1.Criteria for evaluating the learning outcomes of the module**

№ LO	The name of the learning outcomes	Unsatisfactory	Satisfactory	Good	Excellent
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LO 1	Demonstrates knowledge and understanding of the basics of semiotics and syndromology, etiology, pathogenesis and morphogenesis of pathological changes in organs and systems.	1) is not able to determine the basics of semiotics and syndromology, the main parameters of laboratory and instrumental studies of pathological processes of organs and systems 3) does not explain the etiology, pathogenesis, morphogenesis of various diseases.	1) it is difficult to determine the basics of semiotics and syndromology 2) knows the basic parameters of laboratory and instrumental studies of pathological processes of organs and systems 3) it is difficult to determine the etiology, pathogenesis, morphogenesis of various diseases	1) defines the basics of semiotics and syndromology 2) applies knowledge of basic parameters of laboratory and instrumental studies of pathological processes of organs and systems 3) explains the etiology, pathogenesis, morphogenesis of various diseases.	1) independently determines the basics of semiotics and syndromology 2) analyzes the basic parameters of laboratory and instrumental studies of pathological processes of organs and systems. 3) analyzes the etiology, pathogenesis, morphogenesis of various diseases.
LO 2	Owns the methods of questioning, physical examination of adults and children, uses clinical thinking in collecting information when drawing up a survey plan; outlines the scope of basic and additional studies to clarify the lesion syndrome.	1) is not able to conduct questioning, physical examination of the patient, to make an examination plan.	1) admits inaccuracies during questioning, physical examination of patients 2) it is difficult to collect information when drawing up a survey plan; 3) it is not able to justify a plan of basic and additional studies to clarify the lesion syndrome.	1) conducts questioning, physical examination of patients 2) collects information when drawing up a survey plan 3) justifies the planned volume of basic and additional studies to clarify the lesion syndrome.	1) is fluent in the methods of questioning and physical examination 2) independently conducts questioning, physical examination of patients 3) uses clinical thinking in the collection of information and the preparation of an examination plan 4) substantiates the indicated volume of basic and additional studies to

					clarify the lesion syndrome.
LO 3	Uses clinical thinking in collecting information when interpreting the results of morphological, laboratory and instrumental methods of examination of patients with diseases of internal organs and systems; formulates a syndromic diagnosis; fills out a medical history.	1) is not able to recognize the connections between the clinical picture and the collected information, formulate a syndrome diagnosis and fill out a medical history.	1) has difficulties in recognizing the relationship between the clinical picture and the collected information 2) has difficulty in comparing the results of morphological, laboratory and instrumental methods of examining patients with diseases of internal organs and systems 3) is able to formulate a syndromal diagnosis 4) does not informatively fill in the history of the disease.	1) recognizes the connections between the clinical picture and the collected information 2) compares the results of morphological, laboratory and instrumental methods of investigation of patients with diseases of internal organs and systems 3) is able to formulate a syndromal diagnosis 4) informatively and correctly fills in the history of the disease	1) possesses clinical thinking in recognizing the connection between the clinical picture and the collected information 2) analyzes the results of morphological, laboratory and instrumental methods of investigation of patients with diseases of internal organs and systems; 3) self-formuliruetin dromal-nydiagnosis 4) informatively and correctly fills in the history of the disease
LO 4	Communicates information, ideas, problems and solutions to patients and their family members, knows the norms of ethics and deontology in communicating with patients, their relatives and colleagues.	1) unable to communicate with patients, their family members 2) does not comply with the rules of ethics and deontology when communicating with patients, their relatives (legal representatives)	1) has difficulty communicating proper information, ideas, problems and solutions, both to specialists and non-specialists 2) he finds it difficult to communicate with patients	1) conveys appropriate information, ideas, problems and solutions to both specialists and non-specialists 2) communicates with patients and their family members	1) objectively conveys appropriate information, ideas, problems and solutions to both specialists and non-specialists 2) communicates effectively with patients and their

		and the team.	and his family members 3) allows non-compliance with the norms of ethics and deontology in communication with patients, their relatives (legal representatives ) and the team.	3) adheres to the norms of ethics and deontology in communicating with patients, their relatives (legal representatives ) and the team.	family members, taking into account the peculiarities of psychology, multiculturalism; 3) adheres to the norms of ethics and deontology in communicating with patients, their relatives (legal representatives ) and the team.
LO 5	Determines pathological processes at the organ and cellular levels, interprets data on the morphology of diseases taking into account the clinical data of patients, makes conclusions, explains the patterns of complications and outcomes of pathology of organs and systems, evaluates the results of experimental studies.	1) does not indicate the main morphological manifestations of various diseases 2) does not name the pathological processes of organs and systems at the organ, tissue and cellular levels.	1) indicates the main morphological manifestations of various diseases 2) names pathoanatomic changes of organs and systems at the organ, tissue and cellular levels 3) does not make conclusions, does not name complications and outcomes of pathology of organs and systems 5) conducts experimental research.	1) distinguishes the pathological anatomy of various diseases, their main morphological manifestations 2) names pathoanatomic changes of organs and systems at the organ, tissue and cellular levels 3) makes conclusions, names complications and outcomes of pathology of organs and systems 5) analyzes the results of the conducted experimental studies.	1) assesses the pathological anatomy of various diseases, their main morphological manifestations 2) independently determines the pathological changes of organs and systems at the organ, tissue and cellular levels 3) analyzes pathological changes of organs, tissues and cells in various diseases, compares morphology with the clinic 4) makes conclusions, explains the laws of the

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					development of complications and outcomes of pathology of organs and systems 5) evaluates the results of experimental studies
LO 6	Selects medicines in accordance with the diagnosis, writes prescriptions for medicines, determines the dosage regimen, recognizes the undesirable effects of medicines, predicts the development of side effects of medicines.	1) determines the general pharmacological group of medicines and prescribes a prescription with the assumption of errors.	1) selects a pharmacologic al group of medicinal products by organs and systems 2) prescribes a prescription using reference literature/sources.	1) selects medicines for the treatment and prevention of the most common diseases 2) prescribes a prescription for a given drug without errors 3) calculates the dose of the drug	1) selects medicines from various pharmacologic al groups in accordance with indications for use, contraindications and side effects 2) prescribes a prescription for medicines in the most acceptable dosage form, depending on age, gender, functional characteristics 3) calculates doses by various methods and determines the frequency and duration of use of the drug.
LO 7	Formulates adequate research questions, critically evaluates professional literature, effectively uses international medical databases, executes a project, demonstrates a desire for continuous	1) does not have research skills 2) has no desire for continuous self-education and development	1) does not use scientific and clinical materials in the learning process 2) does not use international databases in	1)uses scientific and clinical materials in the learning process 2) uses international databases in its	1)analyzes scientific and clinical materials in the learning process 2) uses international databases in its

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improvement of its activities		work 2) participates in the implementation of the project 3) violates the deadlines for completing tasks	work 2) participates in the implementation of the project 3) performs tasks on time	work 2) protects the completed project 3) demonstrates motivation for independent work, creatively approaches tasks
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10.2		Evaluation criteria			
Checklist					
Rating by letter system	Digital equivalent of points	Percentage content	Assessment according to the traditional system		
A	4,0	95-100	Excellent		
A -	3,67	90-94			
B +	3,33	85-89	Good		
B	3,0	80-84			
B -	2,67	75-79			
C +	2,33	70-74			
C	2,0	65-69	Satisfactory		
C -	1,67	60-64			
D+	1,33	55-59			
D-	1,0	50-54			
FX	0,5	25-49	Unsatisfactory		
F	0	0-24			

### EVALUATION CRITERIA. CHECKLISTS OF PRACTICAL TRAINING and SRO

№	Evaluation criteria	Level			
		Excellent	Good	Satisfactory	Unsatisfactory
Practical exercises:					
1	Written answer to the questions of this assignment/execution of the protocol of laboratory work Solving situational problems	30	21	15	0
2	Oral answer to the questions of this assignment	30	21	15	0
3	Completing test tasks	12	8	6	0
4	Solving situational problems	28	20	14	0
	<b>Common:</b>	<b>100</b>	<b>70</b>	<b>50</b>	

#### 1. Written answer to the questions of this assignment

№	Evaluation criteria	Scores
1	The student showed original thinking, showed deep knowledge of the material, used scientific achievements of other disciplines when answering. Used scientific terminology.	27-30
2	The student showed knowledge of the material, made unprincipled inaccuracies. Used scientific terminology.	21-26
3	The student made inaccuracies and unprincipled mistakes during the answer, used scientific terminology, had great difficulties in systematizing the material, needed the help of a teacher	15-20
4	The student did not answer the questions, made fundamental mistakes and inaccuracies, did not use scientific terminology in the answers.	0-14

### Performing laboratory work

№	Evaluation criteria	Points
1	In a timely manner and without any mistakes, he completed practical and laboratory work and submitted reports on them, took an active part in discussing the results of the work, made reasonable conclusions, showed original thinking at the same time	27-30
2	He completed practical and laboratory work in a timely manner and submitted reports on them without fundamental comments, took an active part in discussing the results of the work	21-26
3	Completed practical and laboratory work in a timely manner and submitted reports on them. During work, he was not active, needed the help of a teacher	15-20
4	Untimely submitted reports on practical work, made fundamental mistakes in their implementation. I have not completed all the practical work provided for by the program. Did not participate in the discussion of the results of the work	0-14

### Oral answer to the questions of this assignment: Approximately 3 questions with a maximum of 10 points:

№	Questions	Level			
		Excellent	Good	Satisfactory	Unsatisfactory
1	1 theme question	10	7	5	0
2	2 theme question	10	7	5	0
3	3 theme question	10	7	5	0
	<b>Total:</b>	<b>30</b>	<b>21</b>	<b>15</b>	<b>0</b>

#### 1. Oral answer to the questions of this assignment

№	Evaluation criteria	Points
1	Points given in the event that the student did not make any mistakes or inaccuracies during the answer. Focuses on the theories, concepts and directions of the discipline under study and gives them a critical assessment, uses scientific achievements of other disciplines.	27-30
2	Points given in the event that the student did not make gross mistakes during the answer, made unprincipled inaccuracies or fundamental mistake corrected by the student himself, managed to systematize the program material with the help of the teacher.	21-26
3	Points given in the event that the student made inaccuracies and unprincipled mistakes during the answer, limited himself only to the educational literature indicated by the teacher, experienced great difficulties in systematizing the	15-20



	material	
4	Points given in the event that the student made fundamental mistakes during the answer, did not work out the main literature on the topic of the lesson; does not know how to use the scientific terminology of the discipline, answers with gross stylistic and logical mistakes.	0-14

### 1. Completing test tasks

№	Evaluation criteria	Points
1	90-100% correct answers	10-12
2	70-89% correct answers	8-9
3	50-69% correct answers	6-7
4	Менее 50% correct answers	0-2

### 4. Solving situational problems

№	Evaluation criteria	Points
1	Shows original thinking while analyzing a situational problem. Fully uses the theoretical knowledge necessary to solve this problem. Shows excellent knowledge of reference biochemical parameters in the interpretation of the proposed data of bio-liquid analyses. Demonstrates the ability to make logical conclusions on a situational task, while showing a deep understanding of the necessary educational material.	25-28
2	Has the necessary knowledge to solve this situational problem. Makes unprincipled inaccuracies when discussing this case. Able to make the right conclusions on the proposed situational task.	19-24
3	Makes unprincipled inaccuracies when discussing this problem, makes it difficult to interpret the analyses proposed in the situational problem. Makes conclusions difficulty.	14-18
4	Makes fundamental mistakes in the discussion of a situational task. Passive, unable to make appropriate conclusions.	0-13

### Situational tasks – maximum 28 points (each task has a maximum of 14 points):

№	Questions	Level			
		Excellent	Good	Satisfactory	Unsatisfactory
1	1 situational theme task	14	10	7	0
2	2 situational theme task	14	10	7	0
	<b>Total:</b>	<b>28</b>	<b>20</b>	<b>14</b>	<b>0</b>

### CHECK-LIST SRO:

Student name \_\_\_\_\_

#### *Criteria for evaluating presentations in multimedia format*

Criteria	Level		
	excellent 90-100	good 75-89	Satisfactory 50-74



The presence of a title slide with a title, a presentation plan, a sufficient number of slides, a list of references and Internet sources.	10	7,5	5
Compliance of the presentation content with the topic and tasks.	10	7,5	5
The arrangement of the slides in a logical sequence.	10	7,5	5
The style of presentation of the material (conciseness, clear wording, structuring).	10	7,5	5
The use of modern sources of information in sufficient quantity.	10	7,5	5
The ability to generalize the material, clear and clear conclusions.	10	7,5	5
The level of orientation in the presentation material.	10	7,5	5
The ability to report clearly, competently, consistently.	10	7,5	5
The ability to defend their position and the ability to respond constructively to criticism.	10	7,5	5
The quality of the slide design (colorfulness, visibility, etc.).	10	7,5	5
Total:	100	75	50
Teacher's signature _____			

#### Evaluation criteria for the analysis of scientific articles (check-list)

Evaluation criteria in points by %	Unsatisfactory/ 0-49%	Satisfactory/65-54%	Good/70-89%	Excellent/90-100%
<b>Structure of the article</b>	1) does not name the structural components of a scientific article	1) does not follow the order of the structure of the scientific article when listing, skips the components	1) Lists the structural components of a scientific article, but violates the order of the structure	1) Follows the order of the structure of the scientific article when listing Title Authors Publishing house Resume General part (introduction, purpose, materials and methods, results and discussion) Conclusions

				List of literature
<b>Analysis of the content of a scientific article</b>	1. Does not understand the relevance of the problem, is not able to discuss the content of the article	1. Understands the urgency of the problem 2. Lists the purpose of the work, the materials and methods used in the work 3. understands the content of the scientific article 4. Lists the conclusions, the list of references in this article	2. Assumes the relevance of the problem 2. Explains the purpose of the work, the materials and methods used in the work 3. sets out the content of the scientific article 4. Substantiates the conclusions 5. Substantiates the selected list of references in this article	1) Independently substantiates and argues the relevance of the problem 2) Explains the purpose of the work, the materials and methods used in the work 3) Freely expounds the semantic content of a scientific article 4) Argues and substantiates the conclusions 5) Has the skill of using literature and justifies the selected list of references in this article
<b>Answer to additional questions (on the topic of the article for the discipline)</b>	Does not answer additional questions on the topic	Does not understand the problem posed for answers additional questions	Applies the acquired knowledge in a practical lesson on the topic to answer	Applies the acquired knowledge in a practical lesson on the topic to answer

### Criteria for evaluating project work.

<i>Criterion "Goal setting and project planning"</i>	Points
The goal is <b>not formulated</b>	unsatisfactory 0-49%
The goal is <b>formulated</b> , but there is <b>no plan</b> to achieve it	satisfactory 50-69%
The goal is <b>formulated</b> , justified, and a schematic <b>plan</b> for its achievement is <b>given</b>	good 70-89%
The goal is <b>formulated</b> , clearly <b>justified</b> , and a <b>detailed plan</b> for its achievement	excellent

is given	90-100%
<b>Criterion "Statement and justification of the project problem"</b>	
The problem of the project is <b>not formulated</b>	unsatisfactory. 0-49%
The formulation of the project problem is <b>superficial</b>	satisfactory 50-69%
The problem of the project is <b>clearly formulated and justified</b>	good 70-89%
The problem of the project is <b>clearly formulated, justified and is a profound</b>	excellent 90-100%
<b>Criterion "Diversity of information sources used"</b>	
Information that does <b>not correspond</b> to the topic and purpose of the project was used	unsatisfactory 0-49%
<b>Most of the information</b> provided does <b>not relate</b> to the topic of the work	satisfactory 50-69%
The work contains a <b>small amount</b> of relevant information from a <b>limited number of similar sources</b>	good 70-89%
The work contains fairly <b>complete information</b> from a <b>variety of sources</b>	excellent 90-100%
<b>Criterion "Depth of disclosure of the project topic"</b>	
The topic of the project is <b>not disclosed</b>	Unsatisfactory 0-49%
The topic of the project is revealed <b>in fragments</b>	satisfactory 50-69%
The topic of the project is disclosed, the author showed <b>knowledge of the topic within the framework of the work program on the discipline being studied</b>	good 70-89%
The topic of the project is disclosed exhaustively, the author demonstrated <b>in-depth knowledge</b> that goes <b>beyond</b> the scope of <b>the work program</b> being studied	excellent 90-100%
<b>Criterion "Analysis of the progress of work and the results obtained, conclusions"</b>	
<b>No attempts have been made to analyze</b> the progress and result of the work	Unsatisfactory 0-49%
The analysis is replaced by a <b>brief description</b> of the progress and order of work	satisfactory 50-69%
The <b>detailed result of the work</b> on achieving the goals stated in the project is presented	good 70-89%
An <b>exhaustive analysis</b> of the obtained results of the work is presented, the	excellent

necessary <b>conclusions</b> are drawn, the <b>prospects of work</b> are outlined	90-100%
<b>Criterion "Achievement of the goal and compliance with the content of the project"</b>	
The goals stated in the project <b>have not been achieved</b>	unsatisfactory 0-49%
<b>A significant part of the methods</b> of work used does not correspond to the theme and purpose of the project	satisfactory 50-69%
The methods of work used <b>correspond</b> to the theme and purpose of the project, but are <b>insufficient</b>	Good 70-89%
The methods of work are <b>sufficient</b> and used <b>appropriately and effectively</b> , the project <b>goals have been achieved</b>	excellent 90-100%
<b>Criterion "Personal participation, creative approach to work"</b>	
The work is a <b>template</b> , showing the <b>formal attitude</b> of the author	Unsatisfactory 0-49%
The author showed <b>little involvement</b> in the topic of the project, but did not demonstrate independence in the work, did not use the possibilities of a creative approach	satisfactory 50-69%
The work is independent, demonstrating <b>insufficient full participation</b> , an attempt is made to present a <b>personal view on the topic</b> of the project, <b>elements of creativity</b> are applied	good 70-89%
The work is characterized by a <b>creative approach</b> , full participation and the author's own <b>original attitude</b> to the idea of the project	excellent 90-100%
<b>Criterion "Compliance with the requirements of the written part"</b>	
The written part of the project <b>does not meet the requirements</b> , all sections of the work are <b>not disclosed</b> and the work is not submitted on time	Unsatisfactory 0-49%
In the written part of the work, all sections are <b>partially disclosed</b> , fundamental mistakes	satisfactory 50-69%
There are typos and incorrect expressions in the work	Good 70-89%
<b>The work fully reflects:</b> the relevance of the topic, novelty and practical significance, conclusions, recommendations, the degree of solution problems and completion of the work, the correctness of its formulation, the author's familiarity with scientific literature, the depth of discussion, the literacy of the presentation and the work was delivered on time according to the schedule	excellent 90-100%
<b>Criterion "Quality of presentation"</b>	
There are a lot of fundamental mistakes in the presentation and answers to questions	Unsatisfactory 0-49%
There are small fundamental errors and inaccuracies in the presentation; partial fundamental errors when answering questions	satisfactory 50-69%
The presentation contains typos, incorrect expressions, some non-fundamental	good

mistakes, inaccuracies in answering questions	70-89%
Presentation style, presentation of information, content, text meets the general requirements of presentation design. The author confidently and accurately answers the questions	excellent 90-100%
<b>Criterion "Quality of the final product"</b>	
There is <b>no project product</b>	unsatisfactory. 0-49%
The project product <b>does not meet the quality requirements</b> (aesthetics, usability, compliance with the stated goals)	satisfactory 50-69%
The product <b>does not fully meet the quality requirements</b>	good 70-89%
The product <b>fully meets the quality requirements</b> (aesthetic, convenient to use, meets the stated goals)	excellent 90-100%

### Check-list

**criteria for evaluating responses to the description of macropreparations at the midterm examination (pathological anatomy)**

№	Evaluation criteria/evaluation	Excellent	Good	Satisfactor y	Unsatisfactory
1.	Name of body part	4	3	2	0
2.	Size of body part	10	7	5	0
3.	Surface: condition of the capsule or serous membrane, dullness, gloss, overlay	1	1	1	0
4.	Characteristics of the pathological focus: Localization, size, shape (if the ulcer is the condition of the bottom), color, consistency	5	4	2	0
5.	Pathoanatomic diagnosis/conclusion				
6.	Total	20	15	10	0

The maximum number of points is 20

### Joint Checklist

**criteria for evaluating written tasks at the midterm examination (PDB/PVP)**

Form of control	Evaluation	Evaluation criteria
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Solving situational problems on tickets	<b>"Excellent"</b> 90-100%	The student accurately analyzes the main and secondary complaints, perfectly navigates the collected anamnesis of life and disease. Connects the data of objective physical examination (palpation, auscultation, percussion), correctly interprets the data of laboratory and instrumental studies. He is able to evaluate the pathophysiological patterns of research results. Finds and compares the relationship between the main symptoms and syndromes. Substantiates and makes a presumptive syndromic diagnosis.
		The student accurately answered the question on the task based on understanding, knowledge and clinical thinking on this clinical situation.
		Unmistakably conducts basic physical research on this problem according to the algorithm (practical skill No. 1)
		Unmistakably conducts basic physical research on this problem using an algorithm (practical skill No. 2)
	«Good» 70-89%	The student perfectly understands the main and secondary complaints, is well-versed in the collected history of life and disease. Connects the data of objective physical examination (palpation, auscultation, percussion), interprets the data of laboratory and instrumental studies with errors. There are errors in the evaluation of pathophysiological patterns of research results. Finds and compares the relationship between the main symptoms and syndromes. Makes a presumptive syndromic diagnosis without substantiating the data
		The student did not answer the question on the task in full for this clinical situation
		Conduct basic physical studies on this problem with gaps in the algorithm (practical skill No. 1)
		Conduct basic physical studies on this problem with gaps in the algorithm (practical skill No. 2)

	<p><b>«Satisfactory»</b></p> <p>50-69%</p>	<p>The student examines the main and secondary complaints with errors, is poorly oriented in the collected anamnesis of life and disease.</p> <p>Connects the data of objective physical examination (palpation, auscultation, percussion), correctly interprets the data of laboratory and instrumental studies.</p> <p>Unable to assess the pathophysiological patterns of research results.</p> <p>Is not able to compare the relationship between the main symptoms and syndromes.</p> <p>Makes a presumptive syndromic diagnosis without substantiating the data</p>
		The student answered the question on the task without understanding, knowledge and clinical thinking on this clinical situation
		Conducts basic physical research on this problem with fundamental errors (practical skill No. 1)
		Conducts basic physical research on this problem with fundamental errors (practical skill No. 2)
	<p><b>«Unsatisfactory»</b></p> <p>0-49%</p>	<p>The student has no idea about the main and secondary complaints, is not guided by the collected anamnesis of life and disease.</p> <p>Does not see the connection of the data of objective physical examination (palpation, auscultation, percussion), incorrectly interprets the data of laboratory and instrumental studies.</p> <p>Does not know how to evaluate the pathophysiological patterns of research results.</p> <p>Does not find and is not able to compare the relationship between the main symptoms and syndromes.</p> <p>Makes a presumptive syndromic diagnosis without substantiating the data</p>
		The student gave the wrong answer to the question on the problem
		The skill shown for this task does not correspond to the algorithm (practical skill No. 1)
		The skill shown for this task does not correspond to the algorithm (practical skill No. 2)

### Check-list

criteria for evaluating responses to the description of micropreparations at the midterm examination (pathological anatomy)

№	Evaluation criteria/ evaluation	Excellent	Good	Satisfactory	Unsatisfactory
1.	Name of body part or tissue	4	3	2	0



2.	Characteristics of pathological changes: localization, description	10	7	5	0
3.	Coloring	1	1	1	0
4.	Pathoanatomic diagnosis/conclusion/	5	4	2	0
5.	Total	20	15	10	0

The maximum number of points is 20

**Checklist for evaluating the oral response at the midterm examination (pathological anatomy)**

№	Evaluation criteria	Grades in points			
		excellent	good	satisfc.	unsatisfc.
1.	The student answered the question: characterized the pathological process 1. Gave a definition 2. Named the classification 3. Explained morphogenesis	30-27	26,7-21	20,7-15	15 lower
2.	The student answered the question: characterized the pathological process Pathoanatomic changes 1. Macroscopic signs 2. Microscopic signs 3. Complications 4. Explained the outcome and/or causes of death	30-27	26,7-21	20,7-15	15 lower
3.	Total	60-54	53,4-42	41,4-30	30<

The maximum number of points is 60 (30 points for each question)

**Assessment checklist completion of midterm examination test tasks (pathological physiology)**

Perfectly matches the scores 95-100 90-94	The student correctly completed 90-100% of the test tasks
Matches the scores well 85-89 80-84 75-79 70-74	The student correctly completed 70-89% of the test tasks
Satisfactorily matches the scores 65-69 60-64 50-54	The student correctly completed 50-69% of the test tasks

Unsatisfactorily corresponds to the points 25-49	The student correctly completed less than 50% of the test tasks
Unsatisfactorily corresponds to the points 0-24	

### Checklist for evaluating the oral response at the midterm examination (Pharmacology-2)

Form of the control	Evaluation	Evaluation criteria
Written	<b>Excellent</b> Matches the scores: A (4,0; 95-100%); A- (3,67; 90-94%)	Given in the event that the student did not make any mistakes during the answer, knows how to use the scientific terminology of the discipline. He is guided in the pharmacological classification and nomenclature of medicines. Gives pharmacological characteristics of medicines. Compares drugs in pharmacological groups, generations (generations) by pharmacokinetic, pharmacodynamic parameters. Writes out a prescription for medicines.
	<b>Good</b> Matches the scores B+ (3,33; 85-89%) B (3,0; 80-84%) B- (2,67; 75-79%) C+ (2,33; 70-74%)	Given in the event that the student did not make any mistakes during the answer, knows how to use the scientific terminology of the discipline. He is guided in the pharmacological classification and nomenclature of medicines. It does not give a complete pharmacological characteristic of medicines. Does not compare drugs in pharmacological groups, generations (generations) by pharmacokinetic, pharmacodynamic parameters. Writes out a prescription for medicines.
	<b>Satisfactory</b> Matches the scores: C (2,0; 65-69%) C- (1,67; 60-64%) D+ (1,33; 55-59%) D- (1,0; 50-54%)	Given in the event that the student did not make many mistakes during the answer, does not know how to use the scientific terminology of the discipline. Does not know the pharmacological classification and nomenclature of medicines. It does not give a complete pharmacological characteristic of medicines. Does not compare drugs in pharmacological groups, generations (generations) by pharmacokinetic, pharmacodynamic parameters. Writes out a prescription for medicines with errors.
	<b>Unsatisfactory</b> FX (0,5; 25-49%) F (0; 0-24%)	Given in the event that the student made fundamental mistakes during the answer, does not know how to use the scientific terminology of the discipline, answers with gross stylistic and logical errors. Does not know the pharmacological classification and nomenclature of medicines. Does not give pharmacological characteristics of medicines. Does not compare drugs in pharmacological groups, generations (generations) by pharmacokinetic, pharmacodynamic parameters. Does not write a prescription for medicines .

№	Name	Link
<b>Electronic books</b>		<p><b>Electronic resources (PVB)</b></p> <p>Ivashkin, V. T. Internal diseases propedeutics [Электронный ресурс] : textbook / V. T. Ivashkin, A. V. Okhiobystin. - Электрон. текстовые дан. ( 142Мб). - М. : ГЭОТАР - Медиа, 2017. - эл. опт. диск (CD-ROM).</p> <p>Внутренние болезни. Т. 2 [Электронный ресурс] : учебник / под ред. В. С. Моисеева. - 3-е изд., испр. и доп. - Электрон. текстовые дан. (45.1Мб). - М. : ГЭОТАР - Медиа, 2015. - 895 с.</p> <p>Внутренние болезни. Т. 1 [Электронный ресурс] : учебник / под ред. В. С. Моисеева. - 3-е изд., испр. и доп. - Электрон. текстовые дан. ( 66.5Мб). - М. : ГЭОТАР - Медиа, 2015. - 960 с.</p> <p>Ішкі аурулар./Бимурзаев Ф.Н., Зарипова Г.К. , 2020/<a href="https://aknurpress.kz/login">https://aknurpress.kz/login</a></p> <p>Ішкі аурулар пәнінен клиникалық тапсырмалар жинағы. Ержанова Г.А., Муханова А.К. , 2016/<a href="https://aknurpress.kz/login">https://aknurpress.kz/login</a></p> <p>Шкі аурулар пропедевтикасынан жағдаяттық тапсырмалар Оразова Б.О., Марченко Т.В. , 2016/<a href="https://aknurpress.kz/login">https://aknurpress.kz/login</a></p> <p>Пропедевтика внутренних болезней : Учебник. / Т.С. Рябова, Е.С. Рысс, В.Я. Плоткин и др.. - СПб.: СпецЛит, 2015. - 414 с.<a href="http://rmebrk.kz/">http://rmebrk.kz/</a></p> <p>Внутренние болезни в работе врача общей практики : Учебное пособие. / К.Ж. Садыкова, Ш.У. Скендерова, С.К. Саттиева. - Туркестан: Туран, 2017. - 96 с. <a href="http://rmebrk.kz/">http://rmebrk.kz/</a></p> <p>Жаманқұлов, Қыдырқожа Абдолкәрімұлы.Ішкі аурулар [Мәтін] : оқулық / Қ. А. Жаманқұлов; Батыс Қазақстан мем. медицина акад.. - Ақтөбе : [б. ж.], 2013. - 669 б.<a href="http://elib.kaznu.kz/">http://elib.kaznu.kz/</a></p> <p>Пропедевтика внутренних болезней: Учебник. – 6-е изд., I - том перераб. и доп. (Учеб. лит. Для студентов медицинских вузов). – Алматы: Эверо, 2020. – 400 с.<a href="https://www.elib.kz">https://www.elib.kz</a></p> <p>Пропедевтика внутренних болезней: Учебник. – 6-е изд., II - том перераб. и доп. (Учеб. лит. Для студентов медицинских вузов). – Алматы: Эверо, 2020. – 212 с.<a href="https://elib.kz">https://elib.kz</a></p> <p>Пропедевтика внутренних болезней: Учебник. – 6-е изд., III - том перераб. и доп. (Учеб. лит. Для студентов медицинских вузов). – Алматы: Эверо, 2020. – 208 с.<a href="https://elib.kz">https://elib.kz</a></p> <p>Нұрсұлтанова С.Д., Бакирова Р.Е., Мамашалиева С.Б., Беков Е.К., Мадиева Л.С.Жүрек тамыр жүйесінің аурулары бар науқастарды тексеру әдісі және техникасы. Оқу-әдістемелік құрал.- Алматы, «Эверо» баспасы. - 2020.<a href="https://elib.kz">https://elib.kz</a></p> <p>Ахметов Қайырғали Жәлелұлы. Ішкі аурулар пропедевтикасы пәнінің клиникалық дәрістері. Алматы: «Эверо», 2020. – 262 бет <a href="https://elib.kz">https://elib.kz</a></p> <p>Ішкі ағза ауруларының пропедевтикасы. Оқулық Айтмбет Б.11-Алматы «Эверо» 2018ж,-568 бет.<a href="https://elib.kz">https://elib.kz</a></p>
<b>Literature</b>		<p><b>Main literature (PVB)</b></p> <p>Василенко, В. Х. Пропедевтика внутренних болезней. Т. 1. : Учебник / В. Х. Василенко, В. В. Василенко ; . - Алматы : Newbook, 2021. - 400. с.</p>

Василенко, В. Х. Пропедевтика внутренних болезней. Т. 2. : Учебник / В. Х. Василенко, В. В. Василенко ; . - Алматы : Newbook, 2021. - 212. с.

Василенко, В. Х. Пропедевтика внутренних болезней. Т. 3. : Учебник / В. Х. Василенко, В. В. Василенко ; . - Алматы : Newbook, 2021. - 208. с.

Мухин , Н. А.Ішкі аурулар пропедевтикасы: оқулық. - М. : ГЭОТАР - Медиа, 2015. - 672 бет-

Василенко, В. Х. Ішкі аурулар пропедевтикасы. Т. 1. [Мәтін] : оқулық / В. Х. Василенко, В. В. Василенко ; мем. тілге ауд. К. Асқамбай. - Алматы : Эверо, 2015. - 336 б. с

Василенко, В. Х. Ішкі аурулар пропедевтикасы. Т. 2 [Мәтін] : оқулық / В. Х. Василенко, В. В. Василенко ; мем. тілге ауд. К. Асқамбай. - Алматы : Эверо, 2015. - 176 б. с

Василенко, В. Х. Ішкі аурулар пропедевтикасы. Т. 3 [Мәтін] : оқулық / В. Х. Василенко, В. В. Василенко ; мем. тілге ауд. К. Асқамбай. - Алматы : Эверо, 2015. - 192 б. с

Айтбембет, Б. Н.Ішкіағза ауруларының пропедевтикасы: оқулық Алматы : Эверо, 2014. - 568 бет.-

Маколкин, В. И. Ішкі аурулар : оқулық. - М. : ГЭОТАР - Медиа, 2014. - 976 бет

Гребенев, А. Л. Пропедевтика внутренних болезней [Текст] : учебник / А. Л. Гребенев. - 5-е изд., перераб. и доп. - Алматы : Эверо, 2014. - 520 с

"Тынысалу жүйесі" модулі: интеграцияланған оқулық = Модуль "Дыхательная система" : интегрированный учебник / С. К. Жауғашева [ж. б.] ; жауапты ред. С. Б. Жәутікова, С. Д. Нұрсұлтанова. - М. : "Литтерра", 2014. - 272 бет. с.

"Жүрек-қан тамырлар жүйесі" модулі : интеграцияланған оқулық = Модуль "Сердечно-сосудистая система" : интегрированный учебник / С. Б. Жауғашева [ж. б.] ; жауапты ред. С. Б. Жәутікова, С. Д. Нұрсұлтанова. - М. : "Литтерра", 2014. - 344 бет. с. : ил.

"Ас қорыту жүйесі" модулі: интеграцияланған оқулық = Модуль "Пищеварительная система" : интегрированный учебник / С. К. Жауғашева [ж. б.] ; жауапты ред. С. Б. Жәутікова, С. Д. Нұрсұлтанова. - М. : "Литтерра", 2014. - 376 бет. с. : ил.

"Зәр шығару жүйесі" модулі: интеграцияланған оқулық = Модуль "Мочевыделительная система" : интегрированный учебник / С. К. Жауғашева [ж. б.] ; жауапты ред. С. Б. Жәутікова, С. Д. Нұрсұлтанова. - М. : Литтерра, 2014. - 256 бет. с. : ил.

"Қан түзуші жүйесі" модулі: интеграцияланған оқулық = Модуль "Кровотворная система" : интеграционный учебник / С. К. Жауғашева [ж. б.] ; жауапты ред. С. Б. Жәутікова, С. Д. Нұрсұлтанова. - М. : "Литтерра", 2014. - 288 бет. с.

"Эндокриндік жүйе" модулі: интеграцияланған оқулық = Модуль "Эндокринная система" : интеграционный учебник / С. К. Жауғашева [ж. б.] ; жауапты ред. С. Б. Жәутікова, С. Д. Нұрсұлтанова. - М. : "Литтерра", 2014. - 328 бет. с.

"Тірек-қимыл жүйесі" модулі : интеграцияланған оқулық = Модуль "Опорно-двигательная система" : интегрированный

учебник / С. К. Жауғашева [ж. б.] ; жауапты ред. С. Б. Жәутікова, С. Д. Нұрсұлтанова. - М. :Литтерра, 2014. - 240 бет. с. : ил.  
"Жүйкежүйесі" модулі: интеграцияланғаноқулық =  
Модуль "Нервная система" : интегрированный учебник / С. К. Жауғашева [ж. б.] ; жауапты ред. С. Б. Жәутікова, С. Д. Нұрсұлтанова. - М. : "Литтерра", 2014. - 264 бет. с. : ил.  
Vasilenko, V. K. Propaedeutics of internal diseases. 1-volume: textbook / - Almaty : "Evero" , 2017. - 364 p.  
Vasilenko, V. K. Propaedeutiks of internal diseases. 2- volum : textbook /. - Almaty : "Evero" , 2017. - 364 p.  
Vasilenko, V. K. Propaedeutics of internal diseases. 3- volume : textbook /. - Almaty : "Evero" , 2017. - 188 p

#### Extra literature (PVB).

Омаров, Т. Р. Неотложные состояния в клинике внутренних болезней [Текст] : учебное пособие / Т. Р. Омаров, В. А. Омарова. - Караганда : АҚНҰР, 2019. - 518 с  
Диагноз при заболеваниях внутренних органов. Формулировка, классификации [Текст] : учебное пособие / под ред. В. А. Ахмедова. - М. : ГЭОТАР - Медиа, 2016. - 256  
Мухин, Н. А. Избранные лекции по внутренним болезням [Текст] : лекция / Н. А. Мухин. - 2-е изд. - М. : ГЭОТАР - Медиа, 2017. - 328 с.  
Ішкі аурулар бойынша объективтендірілген құрамдастырылған клиникалық емтихан : оқу-әдістемелік құрал = Объективный структурированный клинический экзамен по внутренним болезням : учебно методическое пособие / М. Оспанов атындағы БҚММУ ; құрас. Қ. Ж. Ахметов [ж.б.]. - М. : "Литтерра", 2016. - 368 б.  
Сырақатнама : оқу-әдістемелік құрал / Г. М. Есенжанова [Ж. б.] ; ҚР денсаулық сақтау және әлеуметтік даму Министрлігі. - 2-бас. толық және өңд. - Қарағанды : ЖК "Ақнұр", 2015. - 80 с  
Ахметов К.Ішкі аурулар пропедевтикасы пәнінің клиникалық дәрістері;оқу құралы.

### Пропедевка детских болезней-1

#### Основная

1. Ахметова Н.Ш. Психопатологические особенности детского, подросткового и юношеского возраста : учебное пособие / Н. Ш. Ахметова. - 3-е изд. - Караганда : АҚНҰР, 2019. - 140 с
2. Исаева, Л. А. Детские болезни. 1 том]: учебник. - Алматы : Эверо, 2015.
3. Исаева, Л. А. Детские болезни. 2 том: учебник - Алматы : Эверо, 2015.
4. Исаева, Л. А. Детские болезни. 3 том : учебник - Алматы : Эверо, 2015.
5. Исаева, Л. А. Детские болезни. 4 том: учебник - Алматы : Эверо, 2015
6. Альмухамбетова Э.Ф. Ахметова Г.Д Острая дыхательная недостаточность у детей. Ақ-Нұр, 2014
7. Поликлиническая и неотложная педиатрия: учебник - М.: ГЭОТАР - Медиа, 2013. - 896 с
8. Шабалов, Н. П. Детские болезни. В 2 т. Т. 1: учебник . - 7-е изд., перераб. и доп . - СПб. : Питер , 2012.
9. Шабалов, Н. П. Детские болезни. В 2 т. Т. 2.: учебник . - 7-е изд., перераб. и доп . - СПб.: Питер ,



2012.

10. Кабилдина, Н. А. Балалардағы сүйек және жұмсақ тіндер ісіктері] : оқу құралы - Алматы : Эверо, 2013.
11. Исаева, Л. А. Балалар аурулары. Т. 1: оқулық - Алматы : Эверо, 2015
12. Исаева, Л. А. Балалар аурулары. Т. 2: оқулық - Алматы : Эверо, 2015
13. Исаева, Л. А. Балалар аурулары. Т. 3: оқулық - Алматы : Эверо, 2015
14. Исаева, Л. А. Балалар аурулары. Т. 4: оқулық - Алматы : Эверо, 2015.
15. Миалл, Л. Көрнекті педиатрия оқу құралы М. : ГЭОТАР - Медиа, 2015. - 184 бет
16. Балалар аурулары : оқулық - М. : ГЭОТАР - Медиа, 2015. - 1024 бет
17. Емханалық педиатрия - М. : ГЭОТАР - Медиа, 2014. - 752 бет.
18. Гатауова, М. Р. Балаларда кездесетін жіті жұқпалы ауруларды емдеуде антибиотиктерді дәлелдемелі медицина тұрғысынан қолдану : оқу құралы. - Алматы : Эверо, 2014..
19. Альмухамбетова Э.Ф. Ахметова Г.Д. Балалардағы жіті тыныс жетіспеушілігі. Ақ-Нұр, 2014
20. Жетіліп және шала туылған нәрестелердегі туа біткен даму ақаулары : оқу құралы / Т. А. Маймаков [және т.б.]. - Шымкент : Әлем баспаханасы, 2019. - 132 бет с
21. Бала ауруларының пропедевтикасы: оқулық / К. А. Мұстафина [ және т.б.] - 2 - ші бас.толық.өңделген - Шымкент: Әлем баспаханасы, 2019. - 460 б. с
22. Балалардың жасына қарай аурушандық көрсеткішінің қалыптасуы, қатерлі себептері және оларға амбулаторлық емханалық көмекті ұйымдастыруды жетілдіру аспектілер мен қиындықтар : оқу құралы / М.А. Булешов [және т.б.]. - Түркістан : Әлем баспаханасы, 2019. - 112 бет. с
23. Балалар ауруларының пропедевтикасы. 1 т.: оқулық / А. В. Мазурин - Алматы : Эверо, 2016. - 166 бет. с.
24. Балалар ауруларының пропедевтикасы. 2 т.: оқулық / А. В. Мазурин - Алматы : Эверо, 2016. - 188 бет. с.
25. Балалар ауруларының пропедевтикасы. 3 т.: оқулық / А. В. Мазурин. - Алматы : Эверо, 2016. - 156 бет. с.
26. Балалар ауруларының пропедевтикасы. 4 т.: оқулық / А. В. Мазурин - Алматы : Эверо, 2016. - 156 бет. с.
27. Issayeva, L. A. Childhood diseases. Part 1.: textbook / - Almaty : "Evero" , 2017. - 204 p.
28. Issayeva, L. A. Childhood diseases. Part 2.: textbook / - Almaty : "Evero" , 2017. - 188 p.
29. Issayeva, L. A. Childhood diseases. Part 3.: textbook / - Almaty : "Evero" , 2017. - 188 p.
30. Issayeva, L. A. Childhood diseases. Part 4. [: textbook / Almaty : "Evero" , 2017. - 196 p.
31. Mazurin, A. V. Propaedeutics of childhood diseases. 1 volume [: textbook / - Almaty : "Evero" , 2017. - 144 p
32. Mazurin, A. V. Propaedeutics of childhood diseases. 2 volume] : textbook / - Almaty : "Evero" , 2017. - 172 p.
33. Mazurin, A. V. Propaedeutics of childhood diseases. 3 volume [: textbook / - Almaty : "Evero" , 2017. - 140 p.
34. Mazurin, A. V. Propaedeutics of childhood diseases. 4 volume: textbook / - Almaty : "Evero" , 2017. - 136 p.

Дополнительная

1. Руководство участкового педиатра М.: ГЭОТАР - Медиа, 2014. - 528 с
2. Рахимова, К. В. Первичное звено здравоохранения: принципы диспансеризации детей: рук. для педиатров. - 2-е изд. - Алматы: Эверо, 2013.
3. Рахимова К.В. Организация диспансерного наблюдения за детьми в амбулаторных условиях: руководство - Алматы. - Эверо, 2012

Давлетгильдеева З.Г. Балалардағы жүрек ырғағының және өткізгіштігінің бұзылысы: оқу әдістемелік құрал.- Эверо, 2014

Электронные ресурсы:

1. Запруднов, А. М. Детские болезни. Т.1 [Электронный ресурс] : учебник / А - 2-е изд. - Электрон.

текстовые дан. (108Мб). - М. : ГЭОТАР - Медиа, 2013. - 768 с.

2. Запруднов, А. М. Детские болезни. Т. 2 [Электронный ресурс] : учебник - 2-е изд., перераб. и доп. - Электрон. текстовые дан. (0байт). - М. : ГЭОТАР - Медиа, 2013. - 752 с.
3. Кильдиярова, Р.Р. и др. Педиатрия. История болезни : Учебное пособие. / Р.Р. Кильдиярова, В.И. Макарова, Р.М. Файзуллина. - М.: ГЭОТАР-Медиа, 2016. - 96 с. -<http://rmebrk.kz/>
4. Заболевания детей раннего возраста. Учебное пособие. 2016/<https://aknurpress.kz/login>
5. Балалар ауруларының пропедевтикасы мен балаларда жиі кездесетін аурулар. Баймұханбетова Б.Н., Садвакасова М.А. , 2012/<https://aknurpress.kz/login>
6. Дадамбаев, Е. Т. Амбулаторлық- емханалық педиатрия [Электронный ресурс]: оқулық / Электрон. текстовые дан. ( 1.85Гб). - Алматы : Эпиграф, 2016.
7. Балалар аурулары [Электронный ресурс] : оқулық / ред. бас. А. А. Баранов. - Электрон. текстовые дан. (233Мб). - М. : ГЭОТАР - Медиа, 2015. - 1024 б.

Ерте жастағы балалар аурулары. Оқу құралы. 2017/<https://aknurpress.kz/login>

### **Патологическая физиология**

#### Электронные ресурсы:

на русском языке:

1. Патологиялық физиология. Тәжірибелік сабақтарға нұсқау [Электронный ресурс]: оқу құралы = Патофизиология. Руководство к практическим занятиям: учебное пособие/ қаз. тіліне ауд. С. Б. Жәутікова; ред. В. В. Новицкий. - Электрон. текстовые дан. (63,4Мб). - М.: ГЭОТАР - Медиа, 2014. - 768 бет, эл. опт. диск.

на казахском языке:

1. Патология. Екітомдық. 1-2 т.: [Электронный ресурс]: оқулық/ қаз. тіл. ауд. С. А. Апбасова; ред. М. А. Пальцев. - Электрон. текстовые дан. (1,42Мб). - М.: ГЭОТАР - Медиа, 2015. - 536 бет, эл. опт. диск.

2. Патологиялық физиология. Тәжірибелік сабақтарға нұсқау [Электронный ресурс]: оқу құралы = Патофизиология. Руководство к практическим занятиям: учебное пособие/ қаз. тіліне ауд. С. Б. Жәутікова; ред. В. В. Новицкий. - Электрон. текстовые дан. (63,4Мб). - М.: ГЭОТАР - Медиа, 2014. - 768 бет, эл. опт. диск.

#### Электронные базы данных:

Репозиторий ЮКМА <http://lib.ukma.kz/repository/>

Республиканская межвузовская электронная библиотека

<http://rmebrk.kz/>

Консультант студента

<http://www.studmedlib.ru/>

Открытый университет Казахстана

<https://openu.kz/kz>

Закон (доступ в справочно-информационном секторе)

<https://zan.kz/ru>

Параграф

<https://online.zakon.kz/Medicine/>

Научная электронная библиотека

<https://elibrary.ru/>

Ашық кітапхана

[https:// kitap.kz/](https://kitap.kz/)

Thomson Reuters«Web of Science»

[www.webofknowledge.com](http://www.webofknowledge.com)

Scopus

<https://www.scopus.com/>

Sciencedirect

<http://www.sciencedirect.com/>

**На русском языке**



**основная:**

1. Адо. Патофизиология: Учебник, Т. 1-2. - Эверо, 2015.
2. Патологическая физиология (Общая и Частная): учебник/ В.А. Фролов [и др.]. - 4-е изд., пер.и доп. - М.: Издательский дом "Высшее образование и наука", 2019. - 730 с.: с ил.
3. Патофизиология. В 2 т. Т. 1-2: учебник/ под ред. В. В. Новицкого, Е. Д. Гольдберга, О. И. Уразовой; М-во образования и науки РФ. - 4-е изд., перераб. и доп; Рек. ГОУ ВПО "ММА им. И. М. Сеченова". - М.: ГЭОТАР - Медиа, 2012. - 1488 с.

**дополнительная:**

1. Патологиялық физиология. Тәжірибелік сабақтарға нұсқау [Мәтін]: оқу құралы = Патофизиология. Руководство к практическим занятиям: учеб. пособие/ В. В. Новицкий [ж. б.]; ред. басқ. В. В. Новицкий, О. И. Уразова; қаз. тіліне ауд. С. Б. Жәутікова. - М.: ГЭОТАР - Медиа, 2014. - 768 бет с.
2. Патофизиология. Задачи и тестовые задания: учеб.-методическое пособие/ под ред. П. Ф. Литвицкого; М-во образования и науки РФ. - Рек. ГОУ ВПО "ММА им. И. М. Сеченова". - М.: ГЭОТАР - Медиа, 2013. - 384 с.: ил.

**На казахском языке**

**основная:**

1. Патофизиология. Екітомдық. 1-2 т.: оқулық/ қазақ тіл. ауд. Б. А. Жетпісбаев, С. Б. Жәутікова; ред. В. В. Новицкий. - М.: ГЭОТАР - Медиа, 2018. - 1104 б. + эл. опт.диск (CD-ROM).
2. Адо. Патофизиология: Оқулық. 1-2 т. - Эверо, 2015.
3. Нұрмұхамбетұлы, Ә. Патофизиология. 1-4 т.: оқулық/ Ә. Нұрмұхамбетұлы. - өнд., толықт. 4-бас. - Алматы: Эверо, 2015. - 766 бет с.

**дополнительная:**

1. Нұрмұхамбетұлы, Ә. Патофизиология-1. Клиникалық практикада өте маңызды біртектес дерттік үрдістердің патогенезі мен емдеу жолдарына нұсқама. 1-2 т.: оқу құралы. - Алматы: Эверо, 2016. - 504 б.
2. Патологиялық физиология. Тәжірибелік сабақтарға нұсқау [Мәтін]: оқу құралы = Патофизиология. Руководство к практическим занятиям: учеб. пособие/ В. В. Новицкий [ж. б.]; ред. басқ. В. В. Новицкий, О. И. Уразова; қаз. тіліне ауд. С. Б. Жәутікова. - М.: ГЭОТАР - Медиа, 2014. - 768 бет с.
3. Уразалина, Н. М. Тест тапсырмалары. I-II бөлім. Жалпы нозология, этиология және патогенез, тұқымқуалаушылық реактивтік патологиясы және аллергия. Біртектес дерттік үрдістер. - Алматы: Эверо, 2014. - 386 бет.
4. Жәутікова, С. Б. Мамандандырылған патологиялық физиология курсы: оқу-әдістемелік құралы. - Қарағанды: ЖК "АқНұр", 2013.
5. Жәутікова, С. Б. Патологиялық физиология пәні бойынша ситуациялық есептер жинағы: оқу-әдістемелік құрал. - Қарағанды: ЖК "АқНұр", 2013.

**На английском языке**

**основная:**

1. Norris Tommie L.Porth's Pathophysiology: Concepts of Altered Health States: Textbook/ Tommie L. Norris. - 10 nd ed. - [s. l.]: Wolters Kluwer, 2019. - 1573 p.
2. Kumar V. Robbins Basic Pathology: Textbook/ V. Kumar, A. K. Abbas, J. C. Aster. - 10 nd ed. - [s. l.]: Elsevier, 2018. - 935 p.
3. Pathophysiology. Volume 1-3: the book for medical institutes/ A. D. Ado [and others]. - Almaty: "Evero", 2017. - 732 p.
4. Zhautikova, S. B. Review of pathophysiology: educational-methodical manual/ S. B. Zhautikova, U. Faroog. - Караганда: АҚНҰР, 2017. - 388 p.
5. Zhautikova, S. B. Collection of situational problems for discipline of pathological physiology-2: educational-methodical manual/ S. B. Zhautikova, U. Faroog. - Караганда: АҚНҰР, 2017. - 126 p.
6. Kumar V. Robbins and Cotran. Pathologic Basis of Disease: Textbook/ V. Kumar, Abyl K. Abbas, Jon C. Aster. - 9 nd ed. - [s. l.]: Elsevier/ Saunders, 2015. - 1391 p.

**Патологическая анатомия**

**Электронные ресурсы, включая, но не ограничиваясь ими: базы данных, анимации симуляторы,**

**профессиональные блоги, веб-сайты, другие электронные справочные материалы (например, видео, аудио, дайджесты)**

Электронный контент к 1-15 занятиям:

-презентация теоретической части - лекционный материал;

-макро- и микрофотографии;

-видео-файлы с описанием и заключением по макро- и микрофотографиям.

**Google disk:**<https://drive.google.com/drive/folders/1rybSm6GhZkiuIGJaNAh5gh8nJ8tD3uxk?usp=sharing>

**Электронные учебники**

1. Патологическая анатомия [Электронный ресурс] : национальное рук. / гл. ред.

М. А. Пальцева, - М. : ГЭОТАР - Медиа, 2013. - 1264 с

2. Струков, А. И. Патологическая анатомия [Электронный ресурс] : учебник - М. : ГЭОТАР - Медиа, 2013

3. Струков, А. И. Патологическая анатомия [Электронный ресурс] : учебник . - 5-е изд. стер. - Электрон. текстовые дан. (51,9 МБ). - М. : Изд. группа "ГЭОТАР-Медиа", 2011. - . эл. опт. диск (CD-ROM).

4. Патологическая анатомия [Электронный ресурс] : атлас: учеб. пособие / О. В. Зайратьянц [и др.] ; под общ. ред. О. В. Зайратьянца. - Электрон. текстовые дан. ( 144 Мб). - М. : Изд. группа "ГЭОТАР-Медиа", 2010. - 472 с. эл. опт. диск (CD-ROM) .-

Ссылка для доступа: <http://www.studmedlib.ru>, ЛОГИН ibragim123, ПАРОЛЬ Libukma123 (логин и пароль единый для всех) и/или на сайте библиотечно-информационного центра академии [lib.ukma.kz](http://lib.ukma.kz)

5. Тусупбекова, М. М. Морфологический атлас общепатологических процессов [Электронный ресурс] : учебник / М. М. Тусупбекова. - Электрон. текстовые дан. (1.03Гб). - Алматы : Эпиграф, 2016.

6-Электронды кітапхана

-<http://lib.ukma.kz>

7-Электронды каталог

<http://10.10.202.52>

-ішкі пайдаланушылар үшін

<http://89.218.155.74>

-сыртқы пайдаланушылар үшін

8-Республикалық жоғары оқу орындары аралық электронды кітапхана

<http://rmebrk.kz/>

9-«Студент кеңесшісі» Медициналық ЖОО электронды кітапханасы

<http://www.studmedlib.ru>

10-«Параграф» ақпараттық жүйе «Медицина» бөлімі

<https://online.zakon.kz/Medicine>

11-«Заң» құқықтық ақпараттың электронды дереккөзі

<https://zan.kz>

12-Ғылыми электрондық кітапхана

<https://elibrary.ru/>

13-«BooksMed» электронды кітапханасы

<http://www.booksmed.com>

14-«Web of science» (Thomson Reuters)

<http://apps.webofknowledge.com>

15-«Science Direct» (Elsevier)

<https://www.sciencedirect.com>

16-«Scopus» (Elsevier)

[www.scopus.com](http://www.scopus.com)

17-PubMed

<https://www.ncbi.nlm.nih.gov/pubmed>

**Литература**

**основная и дополнительная**

на русском языке

1. Тусупбекова, М. М. Клиническая патоморфология: монография / М. М. Тусупбекова. - Алматы : Эверо, 2016. - 184 с.

2. Повзун, С. А. Патологическая анатомия в вопросах и ответах: учеб. пособие / С. А. Повзун. - 3-е изд., перераб. и доп. ; Рек. ГБОУ ВПО "Первый Мос. гос. мед. ун-т им. И. М. Сеченова". - М. : ГЭОТАР - Медиа, 2016. - 176 с. –

3. Патологическая анатомия. Руководство к практическим занятиям: учебное пособие / М-во образ. и науки РФ. Рек. ГБОУ ВПО "Первый МГМУ им. И. М. Сеченова" ; 4. Под. ред. О. В. Зайратьянца, Л. Б. Тарасовой. - 2-е изд., испр. и доп. - М. : ГЭОТАР - Медиа, 2015. - 696 с. : ил.

4. Тусупбекова, М. М. Морфологический атлас общепатологических процессов : атлас . - Алматы : Эверо, 2012.

дополнительная

6.5. Тусупбекова, М. М. Клиническая патоморфология : учебное пособие . - Алматы : Эверо, 2012.

6. Современные проблемы теоретической и клинической морфологии: материалы конф. 3 дек. 2009 / М-во здравоохранения РК; Каз. нац. мед. ун-т им. С. Д. Асфендиярова; Ассоциация Казахстана. - Алматы : Б. и., 2009. - 341 с.

### Pharmacology

#### Electronic textbooks

1. Kharkevitch, D. A. Pharmacology [Electronic resource] :textbook for medical students / D. A. Kharkevitch. - Electron.text data. ( 83.9 Mb). - Moscow: GEOTAR-Media, 2017. - e.opt. Disk

2. Pharmacology [Electronic resource]: okukuraly / ed. bas. G. M. Pichkhadze = Pharmacology: textbook / ed. G. M. Pichkhadze. - Electron.text data (43.0 Mb). - М.: "Litterra", 2016. - 504 bet p.

3. Maisky, V. V. Pharmacology with a general recipe [Electronic resource]: textbook for medical schools and colleges / V. V. Maisky, R. N. Alyautdin. - 3rd ed., add. and reprint. - Electron.text data. (36.1 MB). - Moscow: Publishing group "GEOTAR-Media", 2011. - 240 p.

4. Alyautdin, R.N. Pharmacology [Electronic resource]: textbook for secondary Prof. education / R. N. Alyautdin, N. G. Preferansky, N. G. Preferanskaya. - Electron.text data. (44.6 MB). - М.: Publishing Group "GEOTAR-Media", 2010. -704 p.

5. Harkevich, D. A. Pharmacology [Electronic resource]: textbook-Electron. text data. (62.1 MB). - М.: Publishing house of the group "GEOTAR-Media", 2010. - 752 p.

#### In Russian:

##### Main:

1. Pharmacology: textbook / ed. by R. N. Alyautdin-M: GEOTAR-Media, 2013. -832 +e-mail.

2. Kopasova V. N. Pharmacology: textbook.manual/V. N. Kopasova. - М.: Eksmo, 2011. - 352 p.

3. Harkevich D. A. Fundamentals of pharmacology: textbook. - М.: GEOTAR-Media, 2015. - 720 p.

4. Alyautdin R. N. Pharmacology: textbook. - М.: GEOTAR-Media, 2014. - 704 p. :

#### Additional information:

1. Pharmacology of antimicrobial agents: textbook.manual / T. A. Muminov. - Almaty: Letter Print. Kazakhstan, 2016. - 784 p. -

2. Mashkovsky M. D. Medicinal products. 16. - e edition. pererab., add. and ispr. M. New Wave. 2017. – 1216 p.

3. Pharmacology:guide to laboratory classes: studies. manual / ed. by D. A. Harkevich. - 6th ed., ispr. and add.; Rec. educational and methodological association for medical and pharmaceutical sciences. education of Russian universities. - Moscow: GEOTAR-Media, 2014. - 512 p.

4. Fundamentals of pharmacology with a recipe: textbook / M. Z. Shaidarov [et al.]. - Astana: Aknur, 2014. - 406 p.

5. Ormanov N. Zh. Pharmacological reference book of medicinal products (classification, nomenclature, mechanism of action and indications for use): textbook.- methodical manual /SKGFA. -; Approved by the Academic Council of the SKGFA. - Almaty: Evero, 2013. - 138 p.

#### In English:

##### Main:

1. Katzung , Bertram G. Basic and Clinical Pharmacology [Text] : textbook / Katzung Bertram G. - 14 nd ed. - [S. l.] : McGraw-Hill education, 2018.

2. Goodman end Gilman's , A. The Pharmacological Basis of Therapeutics [Text] : textbook / Goodman

& Gilman's A. ; editor L. L. Brunton . - 13 nd ed. - New York : McGraw-Hill Education, 2018.

11. Educational resources		
№	Name	Link
1	Republican Interuniversity Electronic Library	<a href="http://rmebrk.kz/">http://rmebrk.kz/</a>
2	Student's Consultant	<a href="http://www.studmedlib.ru/">http://www.studmedlib.ru/</a>
3	Open University of Kazakhstan	<a href="https://openu.kz/kz">https://openu.kz/kz</a>
4	Law (access in the reference and information sector)	<a href="https://zan.kz/ru">https://zan.kz/ru</a>
5	Paragraph	<a href="https://online.zakon.kz/Medicine/">https://online.zakon.kz/Medicine/</a>
6	Scientific Electronic Library	<a href="https://elibrary.ru/">https://elibrary.ru/</a>
7	Open library	<a href="https://kitap.kz/">https:// kitap.kz/</a>
8	ThomsonReuters	<a href="http://www.webofknowledge.com">www.webofknowledge.com</a>
9	ScienceDirect	<a href="http://www.sciencedirect.com/">http://www.sciencedirect.com/</a>
10	Scopus	<a href="https://www.scopus.com/">https://www.scopus.com/</a>
Electronic books		<p>1. Ф.А. Бердалиева Гельминтозы человека (этиология, эпидемиология, патогенез, клиника, диагностика, лечение, профилактика) [Электронный ресурс]:учебное пособие / Ф. А. Бердалиева, Р. Т. Джанабаев . - Электрон. текстовые дан. ( 340 Кб). – Шымкент:ЮОКГМА, 2012. - 46 эл. опт. диск (CD-ROM);</p> <p>2.Инфекционные болезни с основами эпидемиологии. Алшинбаева Г.У. 2018<a href="https://aknurpress.kz/login">https://aknurpress.kz/login</a>;</p> <p>3.Эпидемиология [Электронный ресурс]:учеб. пособие/Минздрав РФ, КГМУ; сост.:Г. Р. Хасанова, О. А. Назарова, Л. М. Зорина. - Казань :КГМУ, 2017. - 73 с. <a href="http://elib.kaznu.kz/">http://elib.kaznu.kz/</a></p>

12. PVB Module Policy	
Requirements for students, attendance, behavior, grading policy, punitive measures, incentive measures, etc.	
<ol style="list-style-type: none"> <li>1. Be in special clothes (white robes, caps, masks, shoe covers) during classes.</li> <li>2. Compulsory attendance of lectures, practical classes and SROP according to schedules.</li> <li>3. Do not be late, do not miss lectures and classes. In case of illness, provide a certificate and a work-out sheet with an indication of the deadline, which is valid for 30 days from the moment it is received at the dean's office.</li> <li>4. Missed classes for a disrespectful reason are not worked out. Students who missed classes for a disrespectful reason in the electronic journal next to the mark "h" are given a score of "0" and penalty points are deducted: the penalty point for skipping 1 lecture is 1.0 point from the assessments of the midterm examination; the penalty point for skipping 1 session of the SRO is 2.0 points from the SRO assessments.</li> <li>5. Attending classes with a doctor is mandatory. In case of absence of students at the SROP, a mark "ab" is made in the educational and electronic journal.</li> <li>6. Each student must complete all forms of SRO assignments and pass on schedule.</li> <li>7. For each practical lesson and SROP, all students should prepare in a timely and clear manner and take an active part in the discussion of the topic.</li> <li>8. Be responsible for the sanitary condition of your workplace and personal hygiene.</li> <li>9. Eating in classrooms is strictly prohibited.</li> <li>10. Observe safety regulations when working with simulation models</li> </ol>	

11. Comply with the Academy's internal regulations and ethics of conduct.
12. Be tolerant, open and friendly to fellow students and teachers.  
Carefully treats the property of the department.
  - Active participation in the educational process.
  - In the absence of activity and in case of non-fulfillment of tasks, penalties are applied and the score for the practical lesson is reduced.
  - Have an idea of the topic of the upcoming lecture, be ready for feedback at the lecture.
  - Be able to work in a team.
  - Mandatory implementation of the SIW at a set time according to the schedule.
  - Delivery of midterm examination at the set time.
  - Active participation of students in research work and in the activities of the department to improve the educational and methodological process.
  - Observe safety precautions in the classroom;
  - Midterm examination of students' knowledge is carried out at least twice during one academic period on 8/15 weeks (days) of theoretical training with the resolution of the results of midterm examinations in the academic progress journal and electronic journal, taking into account penalty points for missing lectures (lecture passes in the form of penalty points are deducted from the assessments of midterm examination). The penalty point for skipping 1 lecture is 2.0 points, taken away from the midterm examination. A student who has not appeared at the midterm examination without a valid reason is not allowed to take the exam in the discipline. The results of the midterm examination are provided to the dean's office in the form of a report doh09009-0\ until the end of the control week.
  - The SIW score is set at the SIW classes according to the schedule in the academic progress log and the electronic log, taking into account penalty points for skipping SIWT classes (skipping SIW classes in the form of penalty points are deducted from the SIW grades). The penalty point for skipping 1 session of the SIWT is 2.0 points.
  - The rating of admission to the exam consists of the average score of lectures, practical classes, SIW, midterm examination.
  - A student who has not scored a passing score (50%) on one of the types of controls (current control, midterm examination No. 1 and /or No. 2) is not allowed to take the exam in the discipline.
  - In case of late delivery of the SIW, the student receives 0 points.

**13. Academic policy based on the moral and ethical values of the Academy**

Academic policy. Item 4 Code of Honor of students

The policy of grading by discipline.

**The final assessment (FA) of students** at the end of the course consists of the sum of the **assessment of the admission rating (AAR)** and the **assessment of the final control (AFC)** and is set according to the point-rating letter system

$$FA = AAR + AFC$$

The **assessment of the admission rating (AAR)** is equal to 61 points or 60% and includes an assessment of the current control (ACC) and an assessment of the midterm examination (ABC)

**The assessment of the current control (ACC)** is an average assessment of the practical training of the SIW.

**The Midterm examination Assessment (MEA)** is an average assessment of two midterm examinations.

**Assesment of the admission rating (AAR) 60 points are calculated according to the formula,**  
**MEA x 0,2 + ACC x 0,4**

**The final control (FC)** is carried out according to the testing formula and the student can get 40 points or 40% of the total score



Departments: «Propaedeutics of Internal Diseases », «Pediatrics №1 », «Pathology and Forensic Medicine»,  
«Pharmacology, Pharmacotherapy And Clinical Pharmacology»

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Working curriculum (syllabus) on the module "Man and disease"

During testing, the student is offered 50 questions.

The calculation of the final control is performed as follows; if the student answered 45 questions out of 50, then this is 90%,  **$90 \times 0.4 = 36$  points, the final score** is calculated if the student has positive ratings, both by the admission rating (AR) = 50 points or 30% or more, and by the final control (FC)=20 points or 20% or more

Final score (FS) (100 points)= MEA  $\times 0,2$  + ACC  $\times 0,4$  + (FC)  $\times 0,4$  a student who received an unsatisfactory grade for one of the types of controls (RC, RC1, TCsr) is not allowed to take the exam. Penalty points are subtracted from the average score of the current control.

14. Approval and revision.			
Date of approval at the department	Protocol №	Full name of the head of department	Signature
29.09.2023	№2	Head of the Department of «Propaedeutics of Internal Diseases», Doctor of Medical Sciences, Professor Bekmurzaeva E.K.	
26.09.2023	№2	Head of the Department "Pediatrics №1" PhD Kemelbekov K.S.	
04.09.2023	№2	Head of the Department of «Pathology and forensic medicine» Doctor of Medical Sciences, acting Professor Sadykova A.Sh.	
14.09.2023	№2	Head of the Department of «Pharmacology, Pharmacotherapy and Clinical Pharmacology», Candidate of Science in Pharmacy, acting Professor Toksanbaeva Zh.S.	
Meeting approval date EPC	Protocol №	Full name of the chairman of the EPC	Signature
04.09.2023	№2	Doctor of Medical Sciences.,acting Professor Sadykova A.Sh.	

Departments: «Propaedeutics of Internal Diseases », «Pediatrics №1 », «Pathology and Forensic Medicine»,  
«Pharmacology, Pharmacotherapy And Clinical Pharmacology»

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Working curriculum (syllabus) on the module "Man and disease"

Ф-044/270/01-2022

**Protocol of coordination of the Working curriculum of the discipline (Syllabus) with other disciplines for  
2022-2027**

Coordination disciplines	Proposals for changes in the proportions of the material, the order of presentation, etc.	Protocol numbers and meeting dates of the coordinating departments
1	2	3
<b>Prerequisites:</b>		
1. Propaedeutics of Internal Diseases -1	Agreed	Protocol № <u>4A</u> , from <u>13.12.</u> 2022y.
2. Propaedeutics of childhood diseases - 1	Agreed	Protocol № <u>5</u> , from <u>29.11.</u> 2022y.
3. General pathological anatomy	Agreed	Protocol № <u>5</u> , from <u>02.12.</u> 2022y.
4. General pathological physiology	Agreed	Protocol № <u>4A</u> , from <u>13.12.</u> 2022y.
5. Pharmacology -1	Agreed	Protocol № <u>5</u> , from <u>19.12.</u> 2022y.
<b>Post-requisites:</b>		
1. Basics of Internal Diseases -1	Agreed	Protocol № <u>4</u> , from <u>25.11.</u> 2022y.
2. Basics of childhood diseases-1	Agreed	Protocol № <u>4</u> , from <u>23.11.</u> 2022y.
3. Basics of surgical diseases	Agreed	Protocol № <u>4</u> , from <u>28.11.</u> 2022y.
4. Basics of Obstetrics and gynecology	Agreed	Protocol № <u>6</u> , from <u>15.12.</u> 2022y.



Departments: «Propaedeutics of Internal Diseases », «Pediatrics №1 », «Pathology and Forensic Medicine»,  
«Pharmacology, Pharmacotherapy And Clinical Pharmacology»


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Working curriculum (syllabus) on the module "Man and disease"

**- Prerequisites:**


1. Propaedeutics of Internal Diseases 1

Head of the Department Д.М.Н., Doctor of Medical Sciences, Professor Bekmurzaeva E.K. 


2. Propaedeutics of childhood diseases -1

Head of the Department PhD Kemelbekov K.S. 


3. General pathological anatomy

Head of the Department Doctor of Medical Sciences, acting Professor Sadykova A.Sh. 

4. General pathological physiology

Head of the Department Candidate of Biological Sciences, Associate Professor Zhakipbekova G.S. 

5. Pharmacology-1


Head of the Department Candidate of Science in Pharmacy, acting Professor Toksanbaeva Zh.S. 

**- Post-requisites:**

1. Basics of Internal Diseases-1

Head of the Department Candidate of Medical Sciences, Associate Professor G.K.Asanova 


2. Basics of childhood diseases-1

Head of the Department Candidate of Medical Sciences, prof. G.E.Bektenova 

3. Basics of surgical diseases

Head of the Department Candidate of Medical Sciences, Associate Professor K.N.Zhumagulov 

4. Basics of Obstetrics and gynecology

Head of the Department PhD., ass. prof. S.N.Kulbaeva 

Departments: «Propaedeutics of Internal Diseases », «Pediatrics №1 », «Pathology and Forensic Medicine»,  
«Pharmacology, Pharmacotherapy And Clinical Pharmacology»

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Working curriculum (syllabus) on the module "Man and disease"

### Addition and change:

#### Protocol of coordination of the working curriculum of the discipline (Syllabus) with other disciplines for 2022-2027

Coordination disciplines	Proposals for changes in the propotijns of the material, the order of presentation, etc.	Protocol numbers and meeting dates of the coordinating departaments
1	2	3
<b>Prerequisites:</b>		
1. Propaedeutics of Internal Diseases 1	Agreed	Protocol № <u>2</u> , from <u>29.09.2023</u>
2. Propaedeutics of childhood diseases -1	Agreed	Protocol № <u>2</u> , from <u>26.09.2023</u>
3. General pathological anatomy	Agreed	Protocol № <u>2</u> , from <u>04.09.2023</u>
4. General pathological physiology	Agreed	Protocol № <u>2</u> , from <u>04.09.2023</u>
5. Pharmacology- 1	Agreed	Protocol № <u>2</u> , from <u>14.09.2023.</u>

Departments: «Propaedeutics of Internal Diseases », «Pediatrics №1 », «Pathology and Forensic Medicine»,  
«Pharmacology, Pharmacotherapy And Clinical Pharmacology»

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Working curriculum (syllabus) on the module "Man and disease"

**- Prerequisites:**

1. Propaedeutics of Internal Diseases 1

Head of the Department d.m.s, Doctor of Medical Sciences,  
Professor Bekmurzaeva E.K. *E.K.*

2. Propaedeutics of childhood diseases -1

Head of the Department PhD Kemelbekov K.S. *K.S.*

3. General pathological anatomy

Head of the Department Doctor of Medical Sciences, acting Professor Sadykova A.Sh. *A.Sh.*

4. General pathological physiology

Head of the Department Doctor of Medical Sciences, acting Professor Sadykova A.Sh. *A.Sh.*

5. Pharmacology- 1

Head of the Department Candidate of Science in Pharmacy,  
acting Professor Toksanbaeva Zh.S. *Zh.S.*