

SYLLABUS
ІШКІ АУРУЛАР
ВНУТРЕННИЕ БОЛЕЗНИ
INTERNAL MEDICINE

1. General information about the discipline			
1.1	Faculty/School: Medicine and Healthcare Department of Internal Medicine	1.6	Credits (ECTS): 10 credits-300 hours, of which 150 are contact hours (practical training)
1.2	Educational program (EP): 6B10103 ЖАЛПЫ МЕДИЦИНА 6B10103 ОБЩАЯ МЕДИЦИНА 6B10103 GENERAL MEDICINE	1.7	Prerequisites: 1. Жалпы патология/Общая патология/General pathology 2. Науқас және дәрігер/Пациент и врач/Patient and doctor 3. Жүйе мүшелердің патологиясы/Патология органов систем/Pathology of organs and systems Postrequisites: 1. Жедел медициналық көмек және қарқынды терапия (мамандық практикасымен итегрирленген)/Экстренная медицина и интенсивная терапия (с интегрированной профпрактикой)/Emergency Medicine and Critical (Intensive) Care (theoretical training and professional practice) 2. Маманды дамыту модулі (мамандық практикасымен итегрирленген)/Модуль профессионального развития (с интегрированной профпрактикой)/ Professional Development (theoretical training and professional practice)
1.3	Agency and year of accreditation of the EP IAAR 2021	1.8	SIW/SPM/SRD (qty): 100 hours
1.4	Name of discipline: Ішкі аурулар/Внутренние болезни/Internal medicine	1.9	SRSP/SRMP/SRDP (number): 50 hours
1.5	Discipline ID: 94353 Discipline code: VB4314	1.10	Required - yes
2. Description of the discipline			
During the course to form students' abilities:			

	The discipline includes the study of the diagnosis and treatment of patients with the most common somatic diseases in their typical manifestation and course and in the age aspect, based on the principles of evidence-based medicine, using the skills of effective professional communication, interpretation of clinical symptoms and syndromes, data of laboratory and instrumental research methods and the application of basic medical therapeutic, diagnostic and preventive measures		
3	Purpose of the discipline		
	Mastering the diagnosis and treatment of patients with the most common somatic diseases in their typical manifestation and course and in the age aspect, based on the principles of evidence-based medicine, using the skills of effective professional communication, interpretation of clinical symptoms and syndromes, data from laboratory and instrumental research methods and the application of basic medical diagnostic and preventive measures		
4.	Learning outcomes (LO) by discipline (3-5)		
	LO disciplines		LO according to the educational program, with which the LO is associated by discipline (LO No. from the EP passport)
1	To identify and interpret clinical symptoms and syndromes, data from laboratory and visual examination methods in patients with the most common somatic diseases in their typical manifestation and course, taking into account age-related aspects.	Proficiency level	1. To apply detailed knowledge of the typical structure and functions of the human body at the level from molecules to cells of organs and the whole organism; apply knowledge of the main pathological processes and biological damage that they cause.
2	Possess the skills of basic medical diagnostic and preventive measures to provide medical care to the population with diseases of internal organs.	Proficiency level	2. Collect information from patients and other sources related to the diagnosis, treatment and prevention of common and emergency conditions, including the performance of diagnostic procedures.
3	Possess the initial skills of maintaining current accounting and reporting medical documentation, including in information systems.	Proficiency level	3. Identify and interpret the clinical symptoms and syndromes, the data of laboratory and instrumental methods of research of patients with the most common diseases in their typical manifestation and course in the age aspect; interpret, analyze, evaluate, and prioritize relevant data for developing a plan for diagnosing and managing a disease, including initiating appropriate interventions.
4	Integrates knowledge and skills to ensure an individual approach in the treatment of a particular patient; teach to make professional	Proficiency	4. Integrate clinical skills and knowledge to provide individualized approach in the treatment of a specific patient, and the strengthening of health in

	decisions based on the analysis of the rationality of diagnosis and the principles of evidence-based medicine.	ency level	accordance with its needs; make professional decisions based on the analysis of the rationality of diagnosis and applying the principles of evidence-based and personalized medicine.
5	Uses communication skills, teamwork skills, organization and management of the diagnostic and treatment process.	Proficiency level	5. Apply knowledge of the basic principles of human behavior for effective communication and therapeutic and diagnostic process in compliance with the principles of ethics and deontology; apply knowledge of the psychology of the patient, taking into account cultural characteristics and race; demonstrate skills in teamwork, organization and management of the diagnostic and therapeutic process; effectively build dynamic relationships between doctor and patient, which occur before, during and after medical treatment; effectively communicate medical information verbally and in writing to provide safe and effective care for patients; work effectively in an interprofessional / multidisciplinary team with other health care professionals;
6	Apply knowledge of the principles and methods of forming a healthy lifestyle of a person and family.	Proficiency level	6. To provide medical care for the most common diseases in patients of all age groups, in urgent and life-threatening conditions;
7	Demonstrate and use commitment to professional values such as altruism, compassion, empathy, responsibility, honesty and respect for the principles of confidentiality.	Proficiency level	7. To apply knowledge of the rights, duties and ways of protecting the rights of the physician and the patient, including the child as a patient, in their professional activities; apply medical knowledge, clinical skills and professional attitude to the patient regardless of his age, culture, faith, traditions, nationality, lifestyle.
8	Demonstrate and use the abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity.	Proficiency level	8. Analyze and maintain the necessary documentation and organization of documents in health care organizations; the use of modern information and digital technology, and health information systems for professional applications

9	Demonstrate and use commitment to the highest standards of professional responsibility and honesty; -observe ethical principles in all professional interactions;	Proficiency level	9. Apply knowledge of the principles and methods of formation a healthy human and family life, population health; apply knowledge of a set factors that determine health and disease for the purpose of prevention
10	Demonstrate the skills of conducting scientific research, the desire for new knowledge and the transfer of knowledge to others. Participate in scientific conferences, write scientific articles	Proficiency level	10. Demonstrate commitment to the highest standards of professional responsibility and honesty; observe ethical principles in all professional interactions with patients, families, colleagues and society as a whole, regardless of ethnic characteristics, culture, gender, economic status or sexual orientation;
11			
12			
5.	Summative assessment methods (mark (yes – no) / specify your own):		
5.1	MCQ testing for understanding and application	5.5	Scientific project SSRW (student’s scientific research work)
5.2	Practical skills – Miniclinical exam (MiniCex)	5.6	360 score - behavior and professionalism
5.3	3. SIW- creative task	5.7	Midterm control: Stage 1 - MCQ testing for understanding and application Stage 2 – passing practical skills (miniclinical exam (MiniCex))
5.4	Medical history	5.8	Exam: Stage 1 - Testing on MCQ for understanding and application Stage 2 - OSCE with NP

6. Detailed information about the discipline					
6.1	Academic year: 2024-2025	6.3	Timetable (сабақ күні, уақыт): From 8.00 to 14.00		
6.2	Semester: 8 semester	6.4	Place (educational building, office, platform and link to the DOT learning meeting): City Clinical Hospital №1, City Clinical Hospital №7		
7. Discipline leader					
	Position	Full name	Department	Contact information (tel., e-mail)	Consultations before exams
	Senior lecturer	Bugibaeva A.B.	Clinical discipline	8-702-447-46-31	Before the examination session within 60 minutes
8. The content of the discipline					
	Name of the discipline		Quantity of hours	Conducting form	
1.	Bronchitis. ARVI. Influenza. Viral pneumonia and ARDS		7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the ISW topics	
2.	Community-acquired pneumonia. Complications of pneumonia. Suppurative lung diseases. Sepsis. DIC syndrome. Hospital-acquired pneumonia and pneumonia in immunocompromised individuals		7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the ISW topics	
3.	Bronchial asthma. Complications and emergencies in bronchial asthma. Anaphylaxis, anaphylactic shock		7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the ISW topics	
4.	COPD		7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center	

			4. Mini-conference of the ISW topics
5.	Respiratory failure. Disseminated lung diseases. Acute and chronic cor pulmonale	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the ISW topics
6.	Ischemic heart disease. Stable exertional angina. CHD treatment. Chronic heart failure	8	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the ISW topics
7.	Acute coronary syndrome (ACS). Myocardial infarction. Complications of myocardial infarction Acute heart failure	8	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the ISW topics
8.	Arterial hypertension. Arrhythmias	8	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the ISW topics
9.	Myocarditis. Cardiomyopathy. Pericarditis	8	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the ISW topics
10.	Acute rheumatic fever and chronic rheumatic heart disease. Infective endocarditis	8	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the ISW topics

Midterm control 1	Summative evaluation: 2 stages: 1-stage – MCQ testing for understanding and application - 40% 2-stage – mini clinical exam (MiniCex) - 60%		
11.	Rheumatoid arthritis	8	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
12.	Medical tactics in monoarticular and polyarticular lesions	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
13.	Seronegative spondyloarthropathies	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
14.	Systemic connective tissue diseases	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
15.	Systemic vasculitis	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
16.	Diseases of the esophagus. Chronic gastritis, duodenitis. Peptic ulcer of the stomach and duodenum. Anemia. IDA, B-12 - deficiency anemia	8	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics

17.	Cholesterosis, chronic cholecystitis, cholelithiasis. Chronic pancreatitis	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
18.	Nonspecific ulcerative colitis. Crohn's disease	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
19.	Viral hepatitis. Diagnostics and clinical manifestations, antiviral therapy. Hypoplastic and hemolytic anemias. Thrombocytopenia	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
20.	Liver cirrhosis. Complications of liver cirrhosis. Gastrointestinal tumors	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
21.	Diabetes mellitus. Emergencies in diabetes mellitus. Obesity and metabolic syndrome	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
22.	Diseases of the thyroid and parathyroid glands	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
23.	Diseases of the hypothalamic-pituitary system and adrenal glands	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center

			4. Mini-conference of the IWS topics
24.	Major syndromes in kidney disease, urinary tract infection	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
25.	Glomerular diseases	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
26.	Acute kidney injury	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
27.	Chronic kidney disease	7	Formative assessment: 1. Using active learning methods: TBL 2. Working with a patient for at least 20% of the study time 3. Training in the simulation center 4. Mini-conference of the IWS topics
Midterm control 2	Summative evaluation: Formative assessment: 1. Using active learning methods: TBL, CBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics 2 stages: 1-stage – MCQ testing for understanding and application - 40% 2-stage – mini clinical exam (MiniCex) - 60%		
Final control (Exam)	Summative evaluation: 2 stages: 1-stage – MCQ testing for understanding and application - 40% 2- stage – OSCE with NP - 60%		

Total		100
9.	Methods of teaching in the discipline (briefly describe the approaches to teaching and learning that will be used in teaching) Using active learning methods: TBL, CBL	
1	Methods of formative assessment: TBL – Team Based Learning CBL – Case Based Learning	
2	Summative assessment methods (from point 5): 1. MCQ testing for understanding and application 2. Passing practical skills - miniclinical exam (MiniCex) 3. SIW - creative task 4. Medical history 5. Scientific project SSRW (student's scientific research work) 6. 360 score - behavior and professionalism	
10.	Summative assessment	
№	Forms of control	General % from total %
1	Patient history defence	30% (estimated by the checklist)
5	Border control	70% (1-stage – MCQ testing for understanding and application - 40%; 2- stage – mini clinical exam (MiniCex) - 60%)
Border control 1		30% +70% = 100%
1	Patient history defence	20% (estimated by the checklist)
2	360 score - behavior and professionalism	10% (estimated by the checklist)
3	Scientific project SSRW (student's scientific research work)	10%
5	Border control	60% (1-stage – MCQ testing for understanding and application - 40%; 2- stage – mini clinical exam (MiniCex) - 60%)
Border control 2		20+10+10 + 60 = 100%
9	Exam	2 stages: 1st stage - testing on MCQ for understanding and application - 40% 2nd stage - OSCE with NP - 60%

10	Final score:	ORD 60% + Exam 40%		
10.	Score			
Rating by letter system	Digital equivalent	Points (% content)	Assessment Description (changes should be made only at the level of the decision of the Academic Committee on the quality of the faculty)	
A	4,0	95-100	Excellent. Exceeds the highest job standards.	
A-	3,67	90-94	Excellent. Meets the highest job standards.	
B+	3,33	85-89	Good. Very good. Meets high job standards.	
B	3,0	80-84	Good. Meets most of the job standards.	
B-	2,67	75-79	Good. More than enough. Shows some reasonable ownership of the material.	
C+	2,33	70-74	Good. Acceptable. Meets the basic standards of the task.	
C	2,0	65-69	Satisfactory. Acceptable. Meets some basic job standards.	
C-	1,67	60-64	Satisfactory. Acceptable. Meets some basic job standards.	
D+	1,33	55-59	Satisfactory. Minimally acceptable.	
D	1,0	50-54	Satisfactory. Minimally acceptable. The lowest level of knowledge and completion of the task.	
FX	0,5	25-49	Unsatisfactory. Minimally acceptable.	
F	0	0-24	Unsatisfactory. Very low productivity.	
11.	Educational resources (use the full link and specify where you can access the texts/materials)			
Literature	Main Available in the library			
	Author	Name of the book, publisher		Year of publication

Курманова, Гаухар Медеубаевна	Курманова, Гаухар Медеубаевна. ОРВИ и грипп : учеб. пособие / Г. М. Курманова, К. Б. Курманова, 2019. - 73, [1] с. - Текст : непосредственный.	2019
В. И. Маколкин, С. И. Овчаренко, В. А. Сулимов	Маколкин, Владимир Иванович. Ішкі аурулар : оқулық / В. И. Маколкин, С. И. Овчаренко, В. А. Сулимов ; қазақ тіл. Ауд., жауапты ред. Қ. А. Жаманқұлов, 2014. – 968, [2] б. – Текст : непосредственный.	2014
Стрюк, Р. И.	Стрюк, Р. И. Внутренние болезни [Текст] : в 3 ч. : учебник. Ч. 3, 2017. - 240 с. - Текст : непосредственный.	2017
	Клинические протоколы диагностики и лечения болезней органов пищеварения, одобренные в Республике Казахстан : протокол / Каз. Ассоциация КАИП по изучению печени, Каз. науч. общество по изучению заболеваний кишечника, 2017. - 293 с. - Текст : непосредственный.	2017
Н. Ж. Орманов, А. Қ. Қоңырбасов, Т. Н. Орманов	Кардиологиялық фармакотерапия : оқулық / [Н. Ж. Орманов, А. Қ. Қоңырбасов, Т. Н. Орманов және т.б.], 2017. - 221 б. - Текст : непосредственный.	2017
Иванова, Райфа Латыфовна	Иванова, Райфа Латыфовна. Жалпы дәрігерлік тәжірибе жағдайындағы буындық синдром : оқу құралы / Р. Ф. Иванова, 2018. - 71, [1] б. - Текст : непосредственный.	2018
Н. Ж. Орманов, З. С. Қорғанбаева, Л. Н. Орманова	Гематологиялық фармакотерапия : оқулық / [Н. Ж. Орманов, З. С. Қорғанбаева, Л. Н. Орманова және т.б.], 2017. - 173 б. - Текст : непосредственный.	2018
Н. Ж. Орманов, Т. Н. Орманов, У. Ж. Садырханова	Бүйрек ауруларының фармакотерапиясы : оқулық / [Н. Ж. Орманов, Т. Н. Орманов, У. Ж. Садырханова, және т.б.], 2017. - 163 б. - Текст : непосредственный.	2017
С. А. Байдурин	Байдурин, Серік Амангелдіұлы. Ішкі аурулардың диагностикалық критерийлері және диагноз қою әдістемесі : оқу құралы / С. А. Байдурин, 2016. - 251 б. - Текст : непосредственный.	2016

C. A. Байдурын	Байдурын, Серик Амангельдинович. Принципы диагностики заболеваний внутренних органов : учеб. пособие / С. А. Байдурын, Ф. К. Бекенова, 2015. - 207 с. - Текст : непосредственный.	2015
P. C. Досмағамбетова	Ішкі аурулар : оқулық : 2 томдық / жалпы ред. басқ. Р. С. Досмағамбетова ; жауапты ред. Л. Г. Тургунова ; ред. басқ.: В. С. Моисеев [және т.б.] ; қазақ тіл. ауд.: Ә. Р. Алина, Г. Ф. Оспанова. 1-том, 2015. - 760, [1] б. - Текст : непосредственный.	2015
P. C. Досмағамбетова	Ішкі аурулар : оқулық : 2 томдық / жалпы ред. басқ. Р. С. Досмағамбетова ; жауапты ред. Л. Г. Тургунова ; ред. басқ.: В. С. Моисеев [және т.б.] ; қазақ тіл. ауд.: Ә. Р. Алина, Г. Ф. Оспанова. 2-том, 2015. - 760, [1] б. - Текст : непосредственный.	2015
Muzdubayeva, Zhanna Ergalievna	Muzdubayeva, Zhanna Ergalievna. Diagnosis and Principles of Treatment of Hematological Diseases : methodical guidance / Zh. E. Muzdubayeva, 2016. - 117, [1] p. - Текст : непосредственный.	2016
Katritsis, Demosthenes	Katritsis, Demosthenes. Clinical Cardiology : Current Practice Guidelines / D. G. Katritsis, B. J. Gersh, A. J. Camm, 2016. - 970 p. - Текст : непосредственный.	2016

Available at the department ([ссылка на Classroom](#))

General medicine

Brian R., Nicki R. Stuart H., Ian D.	Davidson's principles and practice of Medicine 22 th Edition, Brian R., Nicki R. Stuart H., Ian D.	
	HARRISON'S Infectious Diseases, Derived from Harrison's Principles of Internal Medicine, 17th Edition, 2010	2010

	Mandell, Douglas, and Bennett's	Mandell, Douglas, and Bennett's Infectious Disease ESSENTIALS, 2017	2017
	David Schlossberg	Clinical Infectious Disease SECOND EDITION, Edited by David Schlossberg, MD, FACP, 2015	2015
		Clinical Handbook of Pediatrics, Schwartz's, fifth edition, 2013	2013
	Henry M. Adam, MD, FAAP Jane Meschan Foy, MD	Signs & Symptoms IN PEDIATRICS, by Henry M. Adam, MD, FAAP Jane Meschan Foy, MD, FAAP, 2015	2015
	Richard P.Usatine, Camille Sabella	The color atlas of pediatrics by Richard P.Usatine, Camille Sabella, 2015	2015
		PRINCIPLES of PHARMACOLOGY, Fourth Edition, 2017	2017
	Pulmonology		
		Clinical Infectious Disease (WEST'S PULMONARY PATHOPHYSIOLOGY)	
	Steven E. Weinberger, MD, FACP, Barbara A. Cockrill, MD, Jess Mandel, MD	PRINCIPLES OF PULMONARY MEDICINE, sixth edition by Steven E. Weinberger, MD, FACP, Barbara A. Cockrill, MD, Jess Mandel, MD, FACP, 2014	2014
		Oxford Handbook of Respiratory Medicine, Third Edition, 2014	2014
	Cardiology		
	Pierre Thérroux, MD	Acute coronary syndromes : a companion to Braunwald's heart disease, SECOND EDITION	2011
	Brent G. Petty	Basic Electrocardiography Second Edition	2020
	Joseph Loscalzo, MD, PhD	HARRISON'S Cardiovascular Medicine	2010
	James C. Reed, MD	CHEST RADIOLOGY: PATTERNS AND DIFFERENTIAL DIAGNOSES ISBN: 978-0-323-49831-9 SEVENTH EDITION	2018
	Douglas L. Mann, MD, FACC	HEART FAILURE: A COMPANION TO BRAUNWALD'S HEART DISEASE, SECOND EDITION	2011
	Henry R. Black, William J. Elliott	Hypertension A Companion to Braunwald's Heart Disease SECOND EDITION	2013
	M Gabriel Khan	Practical Cardiology First Edition	2018

Punit Ramrakha	Oxford Handbook of Cardiology SECOND EDITION	2013
Alan Noble, Alan Thomas	The Cardiovascular System BASIC SCIENCE AND CLINICAL CONDITIONS/ SECOND EDITION	2010
А.И. Дядыка, А.Э. Багрия	Сердечно-сосудистые заболевания у пожилых /	2013
Элисдейр Райдинг	Эхокардиография. Практическое руководство/ Элисдейр Райдинг: пер. с англ. - М.: МЕДпресс-информ	2010
Ю. Н. Беленкова, Р. Г. Оганова	Кардиология. Национальное руководство : краткое издание / под ред. Ю. Н. Беленкова, Р. Г. Оганова. — М. : ГЭОТАР-Медиа	2012
Джордж А. Стаффер	Кардиология с иллюстрациями Неттера	2021
Струтынский А.В.	Электрокардиограмма – 14-е изд. М: Медпресс-информ	2012
	VASCULAR MEDICINE: A COMPANION TO BRAUNWALD'S HEART DISEASE, 2013	2013
Ziad F. Issa, MD, John M. Miller, MD, Douglas P. Zipes, MD	Clinical Arrhythmology and Electrophysiology. A Companion to Braunwald's Heart Disease, second edition, Ziad F. Issa, MD, John M. Miller, MD, Douglas P. Zipes, MD	
Gastroenterology		
Dan L. Longo, MD, Anthony S. Fauci, MD, Carol A. Langford, MD	HARRISON'S Gastroenterology and Hepatology, edited by Dan L. Longo, MD, Anthony S. Fauci, MD, Carol A. Langford, MD, MHS, 2010	2010
Mauss, Berg, Rockstroh, Sarrazin, Wedemeyer	Hepatology- A clinical textbook. Mauss, Berg, Rockstroh, Sarrazin, Wedemeyer. 2016	2016
/ под ред. И.В. Маева	Тактика врача-гастроэнтеролога: практическое руководство /: ГЭОТАР-Медиа, ил. — (Серия «Тактика врача»).	2019
М.К. Бэйтсон, И.А.Д. Бушьер; пер. с англ. под ред. Е.Ю. Плотниковой	. Клинические исследования в гастроэнтерологии	2021
В.Т. Ивашкин, И.В. Маев, А.С. Трухманов	Справочник по инструментальным исследованиям и вмешательствам в гастроэнтерологии /— М.: ГЭОТАРМедиа	2015
И.В. Маев, Г.А. Бусарова, Д.Н. Андреев	Болезни пищевода / М.: ГЭОТАР-Медиа	2019

под ред. А.В. Чжао	Холангиоцеллюлярная карцинома, — М.: ГЭОТАР-Медиа	2021
под ред. Б.Е. Лэйси, М.Д. Кроуэлла, Дж.К. ДиБайза; пер. с англ. под ред. С.В. Демичева	Функциональные расстройства желудочнокишечного тракта. Практический подход на основе клинического опыта. — М.: ГЭОТАР-Медиа	2017
под ред. М.Ф. Ваези; пер. с англ. под ред. В.А. Ахмедова	Гастроэзофагеальная рефлюксная болезнь. Диагностика и лечение. — М.: ГЭОТАР-Медиа	2016
под ред. Е.В. Ших	Гастроэзофагеальная рефлюксная болезнь: клинические проявления, медикаментозная терапия. — М.: ГЭОТАР-Медиа	2019
В.А. Ахмедов, М.А. Ливзан	Заболевания желудочно-кишечного тракта у беременных. — М.: ГЭОТАР-Медиа	2016
С.В. Бельмер, А.И. Хавкин, Д.В. Печкуров	Функциональные расстройства органов пищеварения у детей. Принципы диагностики и лечения (международные и отечественные рекомендации). — М.: ГЭОТАР-Медиа	2020
А.М. Запруднов	Заболевания кишечника в детском возрасте: руководство для врачей. — М.: ГЭОТАР-Медиа	2018
Hematology		
Dan L.Longo, MD	Harrison's Hematology and Oncology, 17 th edition, edited by Dan L.Longo, MD	2017
A. Victor Hoffbrand, Paul A. H. Moss	Hoffbrand's Essential Haematology, 7 th edition by A. Victor Hoffbrand, Paul A. H. Moss, UK 2016	2017
	Oxford Handbook of Clinical Haematology, 4 th edition, 2015	2012
Сараева Н. О.	Гематология : учебное пособие	2015
Shauna C. Anderson Young	ANDERSON'S Atlas of Hematology THIRD EDITION	2021
Nicholas J Talley, Brad Frankum & David Currow.	Essentials of Internal medicine Elsevier. 3d edition	2015
	Harrisson's Manual of Medicine/ 20th Edition	2020
Endocrinology		
J. Larry Jameson, MD	HARRISON'S Endocrinology, 2 nd edition, by J. Larry Jameson, MD, PhD, 2010	2010

	Oxford Handbook of Endocrinology and Diabetes, Third edition, 2014	2014
Nephrology		
J. Larry Jameson	Harrison's nephrology and acid-base disorders/ J. Larry Jameson, 2010	2010
Edgar V. Lerma, Allen R. Nissenson	Nephrology secrets. —3rd ed. / Edgar V. Lerma, Allen R. Nissenson, New York 2012	2012
Rheumatology		
	HARRISON'S Rheumatology, second edition, 2010	2010
	Oxford Handbook of Rheumatology, forth edition, 2013	2013
Additional Available in the library		
Автор	Наименование книги, издательство	Год издания
Nicholas J Talley, Brad Frankum & David Currow. Essentials of Internal medicine	Elsevier. 3d edition, Chapter 12, p 320-323 – 1 экземпляр	2014
Mukhamedzhanov R. Pathomorphology of Gastritis : teaching manual / R. Mukhamedzyanov, M. Tussupbekova, E. Kamishanskiy, 58, [1] p. - Текст : непосредственный.		2016
Rao, S Devaji. Snapshots in Gastroenterology : [monograph] / S D. Rao,. - 1075 p. - Текст : непосредственный.		2016
Ішкі аурулар гастроэнтерология модулі : оқулық / Е. М. Ларюшина, Л. Г. Тургунова, А. А. Ким, Г. Г. Оспанова ; серия ред. Р. С. Досмағамбетова, 380 б - Текст : непосредственный.		2016
Ас қорыту жүйесі модулі : оқулық / [С. К. Жауғашева және т. б.] ; жауапты ред.: С. Б. Жәутікова, С. Б. Нұрсұлтанова ; серия ред. Р. С. Досмағамбетова, - 375 б. - Текст : непосредственный.		2014

Зэр шығару жүйесі модулі : оқулық / [С. К. Жауғашева және т. б.] ; жауапты ред.: С. Б. Жәутікова, С. Б. Нұрсұлтанова ; серия ред. Р. С. Досмағамбетова, 2014. - 250 б. - Текст : непосредственный.	2014
Жүрек-қан тамырлар жүйесі модулі : оқулық / [С. К. Жауғашева және т. б.] ; жауапты ред.: С. Б. Жәутікова, С. Б. Нұрсұлтанова ; серия ред. Р. С. Досмағамбетова, 2014. - 340 б. - Текст : непосредственный.	2014
Дуйсебаева, Алия Таттибаевна. Ультразвуковая диагностика в кардиологии : учеб. пособие / А. Т. Дуйсебаева, 2018. - 470 с. - Текст : непосредственный.	2018
Дифференциальная диагностика внутренних болезней / Российское научное медицинское общество терапевтов, 2018. - 927, [1] с. - Текст : непосредственный.	2018
Сейсембеков Т. З. Классификации и диагностические критерии внутренних болезней : учеб. пособие / Т. З. Сейсембеков, 2018. - 394 с. - Текст : непосредственный.	2018
Ревматологиялық фармакотерапия : [оқулық] / [Н. Ж. Орманов, Т. Н. Орманов, Ж. О. Бекенова және т. б.], 2017. - 237 б. - Текст : непосредственный.	2017
Кәсіптік аурулар : оқулық / Н. А. Мухин, В. В. Косарев, С. А. Бабанов, В. В. Фомин ; ауд.: Ш. Т. Жукушева, И. Н. Нұрмұханбет ; жауапты ред. Л. Қ. Қаражанова, 2021. - 389 б. - Текст : непосредственный.	2021
Аметов, Александр Сергеевич. Избранные лекции по эндокринологии : учеб. пособие / А. С. Аметов, 2016. - 713 с. - Текст : непосредственный.	2016
Колуэлл, Джон. Сахарный диабет. Новое в лечении и профилактике : монография / Дж. А. Колуэлл, 2014. - 288 с. - Текст : непосредственный.	2014
Ішкі аурулар кардиология модулі : оқулық / Л. К. Бадина, Н. Г. Малюченко, Ф. У. Нильдибаева, Г. Г. Оспанова ; серия ред. Р. С. Досмағамбетова ; [жауапты ред.: Л. Г. Тургунова, Е. М. Ларюшина], 2016. - 239, [1] б. - Текст : непосредственный.	2016
Ішкі аурулар пульмонология модулі : оқулық / А. М. Жусупова, А. А. Ким, А. Р. Алина [және т.б.] ; серия ред. Р. С. Досмағамбетова ; [жауапты ред.: Л. Г. Тургунова, Е. М. Ларюшина], 2016. - 263, [1] б. - Текст : непосредственный.	2016
Ішкі аурулар эндокринология модулі : оқулық / Н. В. Васильева, Д. Т. Амирханова, А. А. Серикбаева, М. Т. Абдрахманова ; серия ред. Р. С. Досмағамбетова ; [жауапты ред.: Л. Г. Тургунова, Е. М. Ларюшина], 2016. - 247, [1] б. - Текст : непосредственный.	2016
Ішкі аурулар нефрология модулі : оқулық / И. В. Бачева, Л. Г. Тургунова, Н. С. Умбеталина, Г. Г. Оспанова ; серия ред. Р. С. Досмағамбетова ; [жауапты ред.: Л. Г. Тургунова, Е. М. Ларюшина], 2016. - 260, [1] б. - Текст : непосредственный.	2016

	<p>Ішкі аурулар Гематология модулі : оқулық / Л. Г. Тургунова, Е. М. Ларюшина, Н. С. Умбеталина [және т.б.] ; серия ред. Р. С. Досмагамбетова ; [жауапты ред.: Л. Г. Тургунова, Е. М. Ларюшина], 2016. - 239, [1] б. - Текст : непосредственный.</p> <p>Ішкі аурулар гастроэнтерология модулі : оқулық / Е. М. Ларюшина, Л. Г. Тургунова, А. А. Ким, Г. Г. Оспанова ; серия ред. Р. С. Досмагамбетова, 2016. - 380, [1] б. - Текст : непосредственный.</p> <p>The ESC Textbook of Preventive Cardiology : textbook / European Association for Cardiovascular Prevention and Rehabilitation, 2015. - 351 p. - Текст : непосредственный.</p> <p>Cardiac Drugs : [monograph] / The Carver College of Medicine, University of Iowa, USA, 2015. - 536 p. - Текст : непосредственный.</p>	2016	
		2016	
		2015	
		2015	
Electronic resources	<p>Internet resources:</p> <ol style="list-style-type: none"> 1. Medscape.com - https://www.medscape.com/familymedicine 2. Oxfordmedicine.com - https://oxfordmedicine.com/ 3. Uptodate.com - https://www.wolterskluwer.com/en/solutions/uptodate 4. Osmosis - https://www.youtube.com/c/osmosis 5. Ninja Nerd - https://www.youtube.com/c/NinjaNerdScience/videos 6. CorMedicale - https://www.youtube.com/c/CorMedicale - medical video animations in Russian language. 7. Lecturio Medical - https://www.youtube.com/channel/UCbYmF43dpGHZ8gi2ugiXr0Q 8. SciDrugs - https://www.youtube.com/c/SciDrugs/videos - video lectures on pharmacology in Russian language. 		
Simulators in the simulation center			
Special software	<ol style="list-style-type: none"> 1. Google classroom - available in the public domain. 2. Medical calculators: Medscape, Physician's Handbook, MD+Calc - freely available. 3. Directory of diagnostic and treatment protocols for medical workers from the RCHD, the Ministry of Health of the Republic of Kazakhstan: Dariger - available in the public domain. 		
12.	Tutor Requirements and Bonus System		

A student in accordance with an individual internship plan:

- 1) supervises patients in organizations providing pre-medical medical care, emergency medical care, specialized medical care (including high-tech), primary health care, palliative care and medical rehabilitation;
- 2) participates in the appointment and implementation of diagnostic, therapeutic and preventive measures;
- 3) conducts documentation and sanitary and educational work among the population;
- 4) participates in preventive examinations, medical examinations, is present at consultations;
- 5) participates in clinical rounds, clinical reviews;
- 6) participates in duty at least four times a month in medical organizations (duty is not taken into account when calculating the workload of an internship student);
- 7) participates in clinical and clinical-anatomical conferences;
- 8) is present at pathoanatomical autopsies, participates in the research of autopsy, biopsy and surgical materials;
- 9) under the supervision of a scientific supervisor, collects material and analyzes data for a scientific project.

Bonus system:

For extraordinary achievements in the field of future professional activity (clinical, scientific, organizational, etc.), additional points up to 10% of the final assessment can be added to the student (by the decision of the department)

13.	Discipline policy (части, выделенные зеленым, пожалуйста, не изменяйте)
	<p style="background-color: #00ff00;">Discipline policy is determined by the University's Academic Policy and the University's Academic Integrity Policy. If the links do not open, then you can find the relevant documents in IS Univer.</p> <p>Rules of Professional Conduct:</p> <ol style="list-style-type: none">1) Appearance:<ul style="list-style-type: none">✓ office style of clothing (shorts, short skirts, open T-shirts are not allowed to attend university, jeans are not allowed in the clinic)✓ Clean and ironed coat✓ medical mask✓ medical cap (or a neat hijab without hanging ends)✓ medical gloves✓ changeable shoes✓ neat hairstyle, long hair should be gathered in a ponytail, or a bun, for both girls and guys. Neatly short cut nails. Bright, dark manicure is prohibited. It is permissible to cover the nails with transparent varnish.✓ badge with full name (full name)2) Mandatory presence of a phonendoscope, tonometer, centimeter tape, (you can also have a pulse oximeter)3) Properly executed sanitary (medical) book (before the start of classes and must be updated on time)

- 4) * Possession of a vaccination passport or other document confirming a fully completed course of vaccination against COVID-19 and influenza
- 5) Mandatory observance of the rules of personal hygiene and safety
- 6) Systematic preparation for the educational process.
- 7) Accurate and timely maintenance of reporting documentation.
- 8) Active participation in medical-diagnostic and public events of the departments.

A student without a medical book and vaccination will not be allowed to see patients.



A student who does not meet the requirements for appearance and / or from whom a strong / pungent odor emanates, since such a smell can provoke an undesirable reaction in the patient (obstruction, etc.) - is not allowed to the patients!

Преподаватель в праве принять решение о допуске к занятиям студентов, которые не выполняют требования профессионального поведения, включая требования клинической базы!

Study discipline:

1. Being late for classes or the morning conference is not allowed. In case of being late, the decision on admission to the lesson is made by the teacher leading the lesson. If there is a good reason, inform the teacher about the delay and the reason by message or by phone. After the third delay, the student writes an explanatory note addressed to the head of the department indicating the reasons for being late and is sent to the dean's office to obtain admission to the lesson. If you are late without a valid reason, the teacher has the right to deduct points from the current grade (1 point for each minute of delay)
2. Religious events, holidays, etc. are not a valid reason for skipping, being late and distracting the teacher and the group from work during classes.
3. If you are late for a good reason - do not distract the group and the teacher from the lesson and quietly go to your place.
4. Leaving the class ahead of time, being outside the workplace during school hours is regarded as absenteeism.
5. Additional work of students during study hours (during practical classes and shifts) is not allowed.
6. For students who have more than 3 passes without notifying the curator and a good reason, a report is issued with a recommendation for expulsion.
7. Missed classes are not made up.
8. The internal regulations of the clinical bases of the department are fully applicable to students
9. Greet the teacher and any senior by standing up (in class)
10. Smoking (including the use of vapes, electronic cigarettes) is strictly prohibited on the territory of medical facilities (outdoors) and the university. Punishment - up to the annulment of boundary control, in case of repeated violation - the decision on admission to classes is made by the head of the department
11. Respectful attitude towards colleagues regardless of gender, age, nationality, religion, sexual orientation.

	<p>12. Have a laptop / laptop / tab / tablet with you for studying and passing MCQ tests for TBL, boundary and final controls. 13. Taking MCQ tests on phones and smartphones is strictly prohibited..</p> <p>The behavior of the student at the exams is regulated by the "Rules for the final control", "Instructions for the final control of the autumn/spring semester of the current academic year" (the current documents are uploaded to the Univer IS and are updated before the start of the session); "Regulations on checking text documents of students for the presence of borrowings."</p> <p>In addition to the requirements for the academic discipline: If you miss a class without a good reason, the teacher has the right to deduct points from the current control - 5 points for each missed lesson for 3rd year disciplines 10 points for each missed lesson for 4-5 year disciplines</p>
14	<p>1. Constantly preparing for classes: For example, backs up statements with relevant references, makes brief summaries Demonstrates effective teaching skills, assists in teaching others</p> <p>2. Take responsibility for your learning: For example, manages their learning plan, actively tries to improve, critically evaluates information resources</p> <p>3. Actively participate in group learning: For example, actively participates in discussions, willingly takes tasks</p> <p>4. Demonstrate effective group skills For example, takes the initiative, shows respect and correctness towards others, helps to resolve misunderstandings and conflicts.</p> <p>5. Skillful communication skills with peers: For example, he listens actively, is receptive to nonverbal and emotional signals Respectful attitude</p> <p>6. Highly developed professional skills: Eager to complete tasks, seek opportunities for more learning, confident and skilled Compliance with ethics and deontology in relation to patients and medical staff Observance of subordination.</p> <p>7. High introspection: For example, recognizes the limitations of his knowledge or abilities, without becoming defensive or reproaching others</p> <p>8. Highly developed critical thinking: For example, accordingly demonstrates skills in performing key tasks, such as generating hypotheses, applying knowledge to cases from practice, critically evaluating information, making conclusions aloud, explaining the process of reflection</p> <p>9. Fully complies with the rules of academic behavior with understanding, offers improvements in order to increase efficiency.</p>

	<p>Observes the ethics of communication – both oral and written (in chats and appeals) 10. Fully follows the rules with full understanding of them, encourages other members of the group to adhere to the rules Strictly adheres to the principles of medical ethics and PRIMUM NON NOCER</p>	
15.	<p>Distance/Online Learning – Prohibited in Clinical Discipline (части, выделенные зеленым, пожалуйста, не изменяйте)</p>	
<p>1. According to the order of the Ministry of Education and Science of the Republic of Kazakhstan No. 17513 dated October 9, 2018 "On approval of the List of areas of training with higher and postgraduate education, training in which in the form of external studies and online education is not allowed". According to the above regulatory document, specialties with the discipline code of health care: bachelor's degree (6B101), master's degree (7M101), residency (7R101), doctoral studies, (8D101) - training in the form of external study and online education - is not allowed.</p> <p>Thus, students are prohibited from distance learning in any form. It is only allowed to work out a lesson in a discipline due to the absence of a student for reasons beyond his control and the presence of a timely confirming document (example: a health problem and presenting a confirming document - a medical certificate, a signal sheet of the PHC, an extract from a consultative appointment with a medical specialist - a doctor)</p>		
16.	Approval and review	
Department head		Sadykova Sh.S.
Committee on the Quality of Teaching and Learning of the Faculty		Kurmanova G.M.

Topic plan and content of classes

№	Topic	Content	Literature	Conduct form
2	3	4	5	
		Pulmonology		
1	Bronchitis. ARVI. Influenza. Viral pneumonia and ARDS	<p>1. Integrate knowledge and skills in the diagnosis, treatment and prevention of influenza and ARVI (features of the pathogenesis and clinic of parainfluenza, RS-virus, rhinovirus, adenovirus, coronavirus infection, Covid19); ARI (rhinitis, pharyngitis, laryngitis, tracheitis and bronchitis) caused by mycoplasmas, chlamydia and bacteria Haemophilus influenzae, streptococci, staphylococci).</p> <p>2. Identify and interpret clinical symptoms, laboratory diagnostic data and instrumental methods for detecting chronic bronchitis, conduct remote sensing (endoscopy) with tracheobronchial dyskinesia, bronchial tuberculosis, bronchial cancer.</p> <p>3. Be able to diagnose and treat community-acquired viral and viral-bacterial pneumonia, suspect ARDS and know the stages of ARDS, the principles of treatment and prevention of ARDS depending on the cause and stage.</p> <p>4. Formulate a complete clinical diagnosis, prescribe treatment, apply knowledge of the course of the disease to manage the patient, taking into account individual characteristics and evaluate effectiveness.</p> <p>5. Apply knowledge of primary and secondary prevention to conduct patient education.</p> <p>https://emedicine.medscape.com/infectious_diseases</p> <p>https://www.uptodate.com/contents/covid-19-clinical-features</p>	<p>https://geekymedics.com/category/medicine/respiratory/</p> <p>https://geekymedics.com/croup/</p> <p>https://geekymedics.com/bronchiolitis/</p> <p>1. Harrison's Principles of internal medicine, 2022</p> <p>2. HARRISON'S Pulmonary and CriticalCare Medicine; Editor Joseph Loscalzo, MD, PhD, 2010</p> <p>3. Clinical Infectious Disease (WEST'S PULMONARY PATHOPHYSIOLOGY);</p> <p>4. PRINCIPLES OF PULMONARY MEDICINE, sixth edition by Steven E. Weinberger, MD, FACP, Barbara A. Cockrill, MD, Jess Mandel, MD, FACP, 2014</p> <p>5. Oxford Handbook of Respiratory Medicine, Third Edition, 2014</p>	<p>Formative assessment:</p> <p>1. Using active learning methods: TBL</p> <p>2. Working with the patient</p> <p>3. Training in the simulation center</p> <p>4. Mini-conference of the IWS topics</p>
2	Community-acquired pneumonia	<p>1. Be able to diagnose (clinically, lab-instrumentally) and treat community-acquired pneumonia in children, adults, the elderly, pregnant women with a typical and atypical pathogen (Str. Pneumonia, Mycoplasma pneumoniae and Chlamydia)</p>	<p>1. Harrison's Principles of internal medicine, 2022</p> <p>2. HARRISON'S Pulmonary and CriticalCare Medicine; Editor Joseph</p>	<p>Formative assessment:</p>

	<p>ia. Complications of pneumonia. Suppurative lung diseases. Sepsis. DIC syndrome. Hospital-acquired pneumonia and pneumonia in immunocompromised individuals</p>	<p>pneumoniae, St. aureus, Klebsiella pneumoniae, Candida) with understanding their characteristics, prescribe antibacterial and mucolytic therapy using knowledge of clinical microbiology and pharmacology. Apply the treatment algorithm and rational antibiotic therapy for pneumonia from the perspective of evidence-based medicine. To understand the principles of immunomodulatory therapy.</p> <ol style="list-style-type: none"> 2. Apply knowledge about the criteria for severity, indications for hospitalization. 3. Identify and interpret clinical symptoms and syndromes, data from laboratory and visual examination methods in patients with complications of pneumonia (pleurisy, complicated pleurisy, pleural empyema; abscesses and gangrene, sepsis, infectious-toxic shock), typical manifestation and course, taking into account age aspects. 4. Suggest bronchiectasis, lung cancer, infiltrative tuberculosis and tuberculous pleurisy. 5. Assume healthcare-associated pneumonia (hospital, ventilator-associated) and apply treatment principles based on knowledge of likely pathogens. 6. Assume pneumonia in immunocompromised patients, the features of pathogenesis and know the principles of treatment and prevention. 7. Know the features of aspiration pneumonia. 8. Formulate a complete clinical diagnosis, prescribe treatment, apply knowledge of the course of the disease to manage the patient, taking into account individual characteristics and evaluate effectiveness. <p>Apply knowledge of primary and secondary prevention to conduct patient education.</p>	<p>Loscalzo, MD, PhD, 2010</p> <ol style="list-style-type: none"> 3. Clinical Infectious Disease (WEST'S PULMONARY PATHOPHYSIOLOGY); 4. PRINCIPLES OF PULMONARY MEDICINE, sixth edition by Steven E. Weinberger, MD, FACP, Barbara A. Cockrill, MD, Jess Mandel, MD, FACP, 2014 5. Oxford Handbook of Respiratory Medicine, Third Edition, 2014 	<ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics
3	<p>Bronchial asthma. Complications and emergent</p>	<ol style="list-style-type: none"> 1. Identify and interpret the clinical symptoms of IgE-dependent and IgE-independent BA, be able to determine the variants of the clinical course of the disease, control levels, severity, comorbid diseases, the risk of BA exacerbations. 2. Carry out differential diagnosis of BA with other allergic (Quincke's edema) and non-allergic diseases (chronic cough 	<p>https://geekymedics.com/peak-expiratory-flow-rate-pefr/</p> <ol style="list-style-type: none"> 1. Harrison's Principles of internal medicine, 2022 2. HARRISON'S Pulmonary and CriticalCare Medicine; Editor Joseph 	<p>Formative assessment:</p> <ol style="list-style-type: none"> 1. Using active learning methods: TBL

	<p>cies in bronchial asthma. Anaphylaxis, anaphylactic shock</p>	<p>syndrome, COPD, heart disease, GERD, pulmonary fibrosis, vocal cord dysfunction syndrome, hyperventilation syndrome).</p> <ol style="list-style-type: none"> 3. Possess the skills of appointment and clinical interpretation of the results of laboratory and instrumental examination. 4. Formulate and substantiate a detailed clinical diagnosis, taking into account the accepted GINA classification. 5. Possess the skills of carrying out medical and diagnostic measures to provide emergency medical care to patients with asthma (attack of asthma, status asthmaticus). 6. Carry out treatment of patients depending on the pathogenesis of the disease, the severity of exacerbation, the level of control and the severity of BA. Assess the effectiveness of therapy. 7. Diagnose and carry out urgent measures in case of anaphylactic shock at all levels of medical care for adults and children, taking into account different clinical variants of shock. 8. Know the immunopathogenesis of severe allergic reactions, be able to identify, formulate a diagnosis and know the principles of treatment of Lyell's syndrome, Stevens-Johnson syndrome, exudative erythema multiforme. Possess skills in managing patients who have had severe allergic reactions, evaluate the effectiveness of the therapy. 9. Own management of patients with bronchial asthma and severe allergic reactions, taking into account their individual characteristics and various variants of the course of diseases. 10. Apply knowledge of primary and secondary prevention of allergic diseases in patient education. 	<p>Loscalzo, MD, PhD, 2010</p> <ol style="list-style-type: none"> 3. Clinical Infectious Disease (WEST'S PULMONARY PATHOPHYSIOLOGY); 4. PRINCIPLES OF PULMONARY MEDICINE, sixth edition by Steven E. Weinberger, MD, FACP, Barbara A. Cockrill, MD, Jess Mandel, MD, FACP, 2014 5. Oxford Handbook of Respiratory Medicine, Third Edition, 2014 	<ol style="list-style-type: none"> 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics
4	COPD	<ol style="list-style-type: none"> 1. Identify and interpret the clinical symptoms of COPD, be able to determine the variants of the clinical course of the disease (emphysematous, bronchitis, mixed), levels of control, prevention of complications, categories, comorbid diseases, exacerbation of COPD and pneumonia in COPD. 2. Possess the skills of prescribing and clinical interpretation of the results of laboratory and instrumental examination (spirometry, CT). 3. Carry out treatment of patients depending on the severity of exacerbation, category and degree of respiratory insufficiency and 	<p>https://classroom.google.com/u/0/c/MzE5NzYxNDAzNDIy?hl=ru https://classroom.google.com/u/0/c/MzE5NzYyODA1ODgw?hl=ru</p> <ol style="list-style-type: none"> 1. Harrison's Principles of internal medicine, 2022 2. HARRISON'S Pulmonary and CriticalCare Medicine; Editor Joseph Loscalzo, MD, PhD, 2010 3. Clinical Infectious Disease (WEST'S 	<p>Formative assessment:</p> <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center

		<p>comorbid conditions (IHD, AH, ACOS). Assess the effectiveness of therapy.</p> <p>4. Possess the skills of medical treatment and diagnostic measures to provide assistance in case of complications (respiratory insufficiency, chronic cor pulmonale, pulmonary hypertension, lung cancer).</p> <p>5. Formulate a complete clinical diagnosis, prescribe treatment, apply knowledge of the course of the disease to manage the patient, taking into account individual characteristics and evaluate effectiveness.</p> <p>6. Apply knowledge of primary and secondary prevention to conduct patient education.</p>	<p>PULMONARY PATHOPHYSIOLOGY);</p> <p>4. PRINCIPLES OF PULMONARY MEDICINE, sixth edition by Steven E. Weinberger, MD, FACP, Barbara A. Cockrill, MD, Jess Mandel, MD, FACP, 2014</p> <p>5. Oxford Handbook of Respiratory Medicine, Third Edition, 2014</p>	<p>4. Mini-conference of the IWS topics</p>
5	<p>Respiratory failure.</p> <p>Disseminated lung diseases.</p> <p>Acute and chronic cor pulmonale</p>	<p>1. Assumes disseminated lung disease: exogenous alveolitis (allergic and toxic), idiopathic fibrosing alveolitis, acute, subacute and chronic sarcoidosis; pneumoconiosis (silicosis), disseminated forms of tuberculosis.</p> <p>2. Has an idea (knows) about rare lung diseases with dissemination syndrome (pneumonitis, pulmonary vasculitis, proteinosis, pneumomycosis, idiopathic pulmonary hemosiderosis, primary bronchopulmonary amyloidosis), EVALI (vaper diseases).</p> <p>3. Identify and interpret clinical symptoms and syndromes, data from laboratory and imaging examinations in patients with pulmonary embolism (PE), acute and chronic cor pulmonale, exogenous and endogenous alveolitis, pulmonary vasculitis in their typical manifestation and course, taking into account age-related aspects.</p> <p>4. Master the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population in case of pulmonary embolism, acute and chronic pulmonary heart disease, exogenous and endogenous alveolitis, pulmonary vasculitis.</p> <p>5. Possess initial skills in maintaining current accounting and reporting medical documentation, including information systems.</p> <p>6. Integrates knowledge and skills to ensure an individual approach in the treatment of a particular patient; to teach to make professional</p>	<p>1. Harrison's Principles of internal medicine, 2022</p> <p>2. HARRISON'S Pulmonary and CriticalCare Medicine; Editor Joseph Loscalzo, MD, PhD, 2010</p> <p>3. Clinical Infectious Disease (WEST'S PULMONARY PATHOPHYSIOLOGY);</p> <p>4. PRINCIPLES OF PULMONARY MEDICINE, sixth edition by Steven E. Weinberger, MD, FACP, Barbara A. Cockrill, MD, Jess Mandel, MD, FACP, 2014</p> <p>5. Oxford Handbook of Respiratory Medicine, Third Edition, 2014</p> <p>6. Harrison's Principles of internal medicine, 2022</p> <p>7. Davidson's principles and practice of Medicine 22th Edition, Brian R., Nicki R. Stuart H., Ian D.</p>	<p>Formative assessment:</p> <p>1. Using active learning methods: TBL</p> <p>2. Working with the patient</p> <p>3. Training in the simulation center</p> <p>4. Mini-conference of the IWS topics</p>

		<p>decisions based on the analysis of the rationality of diagnostics and the principles of evidence-based medicine.</p> <p>7. Demonstrate communication skills, teamwork skills, organization and management of the diagnostic and treatment process.</p> <p>8. Apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family.</p> <p>9. Demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty and confidentiality.</p> <p>10. Demonstrate the ability and need for continuous professional training and improvement of their knowledge and professional skills.</p> <p>11. Demonstrate basic research skills.</p> <p>12. Differential diagnosis: idiopathic fibrosing alveolitis, Goodpasture's syndrome, histiocytosis X, hematogenous disseminated tuberculosis, lung carcinomatosis, bronchoalveolar cancer, pneumomycosis, pneumoconiosis.</p>		
		Cardiology. Rheumatology		
6	<p>Ischemic heart disease.</p> <p>Stable exertional angina.</p> <p>CHD treatment .</p> <p>Chronic heart failure</p>	<p>1. Identify and interpret clinical symptoms and syndromes, data from laboratory and visual examination methods in patients with IHD, HF, CHF, their typical manifestation and course, taking into account age-related aspects.</p> <p>2. Master the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population with IHD, HF, CHF.</p> <p>3. Demonstrate skills in integrating knowledge and skills to ensure an individual approach in the treatment of IHD, HF, CHF; to teach to make professional decisions based on the analysis of the rationality of diagnostics and the principles of evidence-based medicine.</p> <p>4. Demonstrate communication skills, teamwork skills, organization and management of the diagnostic and treatment process.</p> <p>5. Apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family.</p>	<p>1. Harrison's Principles of internal medicine, 2022</p> <p>2. HARRISON'S Cardiovascular Medicine, by Joseph Loscalzo, MD, PhD of Harvard Medical School;Chairman, Boston, 2010</p> <p>3. Acute Coronary Syndromes, second edition, A Companion to Braunwald's Heart Disease, by Pierre Th�eroux, MD Professor of Medicine of Canada, 2011</p> <p>4. Hypertension: A companion to Brounwald's heart disease, second edition, 2013, by Saunders</p> <p>5. Heart Failure Updates, John JV McMurray MD FRCP FESC FACC, Marc A Pfeffer MD PhD, 2003</p> <p>6. Heart Failure: A companion to Brounwald's heart disease, second edition,</p>	<p>Formative assessment:</p> <p>1. Using active learning methods: TBL</p> <p>2. Working with the patient</p> <p>3. Training in the simulation center</p> <p>4. Mini-conference of the IWS topics</p>

		<p>6. Demonstrate the ability and need for continuous professional training and improvement of their knowledge and professional skills.</p> <p>7. Demonstrate basic research skills.</p> <p>8. Differential diagnosis: Variant angina pectoris. Painless myocardial ischemia. Microvascular angina (syndrome X).</p> <p>9. The use of antianginal, thrombolytic, anticoagulant drugs, antiplatelet agents, systematic dosed physical activity. Classification of thrombolytics, indications and contraindications for their use, complications.</p> <p>10. Mechanism of action, indications and contraindications for the use of anticoagulants, laboratory control methods; side effects.</p> <p>11. Classification of antiplatelet agents, indications and contraindications for use, side effects.</p> <p>12. Modern invasive methods of treatment (balloon angioplasty, stenting, coronary artery bypass grafting).</p>	2011, by Saunders	
7	<p>Acute coronary syndrome (ACS). Myocardial infarction. Complications of myocardial infarction Acute heart failure</p>	<p>1. Identify and interpret clinical symptoms and syndromes, data from laboratory and imaging methods in patients with ACS, MI, AHF, their typical manifestation and course, taking into account age-related aspects.</p> <p>2. Possess the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population with ACS, MI, AHF.</p> <p>3. Demonstrate skills in integrating knowledge and skills to provide an individual approach in the treatment of ACS, MI, AHF; to teach to make professional decisions based on the analysis of the rationality of diagnostics and the principles of evidence-based medicine.</p> <p>4. Demonstrate communication skills, teamwork skills, organization and management of the diagnostic and treatment process.</p> <p>5. Apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family.</p> <p>6. Demonstrate the ability and need for continuous professional training and improvement of their knowledge and professional skills.</p>	<p>1. Harrison's Principles of internal medicine, 2022</p> <p>2. HARRISON'S Cardiovascular Medicine, by Joseph Loscalzo, MD, PhD of Harvard Medical School;Chairman, Boston, 2010</p> <p>3. Acute Coronary Syndromes, second edition, A Companion to Braunwald's Heart Disease, by Pierre Théroux, MD Professor of Medicine of Canada, 2011</p> <p>4. Hypertension: A companion to Brounwald's heart disease, second edition, 2013, by Saunders</p> <p>5. Heart Failure Updates, John JV McMurray MD FRCP FESC FACC, Marc A Pfeffer MD PhD, 2003</p> <p>6. Heart Failure: A companion to Brounwald's heart disease, second edition, 2011, by Saunders</p>	<p>Formative assessment:</p> <p>1. Using active learning methods: TBL</p> <p>2. Working with the patient</p> <p>3. Training in the simulation center</p> <p>4. Mini-conference of the IWS topics</p>

		<p>7. Demonstrate basic research skills.</p> <p>8. Mechanisms of atherosclerotic plaque destabilization and development of coronary artery thrombosis. Differential diagnosis.</p> <p>9. The role of biochemical markers of myocardial damage: troponins T and I, myoglobin, creatine phosphokinase MB-fraction in the diagnosis of ACS.</p> <p>10. Medical tactics, treatment and prevention of complications. Emergency care for anginal status at the pre-hospital and hospital stage.</p> <p>11. Diagnostic criteria and therapeutic tactics for rhythm and conduction disorders, cardiogenic shock, pulmonary edema, thromboembolic complications, pericarditis, Dressler's syndrome, early postinfarction angina pectoris, cardiac aneurysm.</p> <p>12. Diagnosis and emergency care for cardiogenic shock, acute left ventricular failure (pulmonary edema).</p>		
8	Arterial hypertension. Arrhythmias	<p>1. Identify and interpret clinical symptoms and syndromes, data from laboratory and visual examination methods in patients with hypertension, arrhythmia, their typical manifestation and course, taking into account age-related aspects.</p> <p>2. Possess the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population with hypertension, arrhythmia.</p> <p>3. Demonstrate skills in integrating knowledge and skills to provide an individual approach in the treatment of hypertension, arrhythmia; to teach to make professional decisions based on the analysis of the rationality of diagnostics and the principles of evidence-based medicine.</p> <p>4. Demonstrate communication skills, teamwork skills, organization and management of the diagnostic and treatment process.</p> <p>5. Apply knowledge of the principles and methods of forming a healthy lifestyle for a person and family.</p> <p>6. Demonstrate the ability and need for continuous professional training and improvement of their knowledge and professional skills.</p> <p>7. Demonstrate basic research skills.</p>	<p>1. Harrison's Principles of internal medicine, 2022</p> <p>2. HARRISON'S Cardiovascular Medicine, by Joseph Loscalzo, MD, PhD of Harvard Medical School;Chairman, Boston, 2010</p> <p>3. Acute Coronary Syndromes, second edition, A Companion to Braunwald's Heart Disease, by Pierre Th�roux, MD Professor of Medicine of Canada, 2011</p> <p>4. Hypertension: A companion to Brounwald's heart disease, second edition, 2013, by Saunders</p> <p>5. Heart Failure Updates, John JV McMurray MD FRCP FESC FACC, Marc A Pfeffer MD PhD, 2003</p> <p>6. Heart Failure: A companion to Brounwald's heart disease, second edition, 2011, by Saunders</p> <p>7. Clinical Arrhythmology and Electrophysiology. A Companion to Braunwald's Heart Disease, second edition,</p>	<p>Formative assessment:</p> <p>1. Using active learning methods: TBL</p> <p>2. Working with the patient</p> <p>3. Training in the simulation center</p> <p>4. Mini-conference of the IWS topics</p>

		<p>8. Has an idea (knows) about arterial hypertension in children and adolescents. Rules for measuring blood pressure. Principles of management of children and adolescents with hypertension.</p> <p>9. Knows the mechanism of action, dosage, side effects and contraindications of the following drugs: beta-blockers, diuretics, calcium antagonists, ACE inhibitors, angiotensin II receptor antagonists, direct vasodilators, sympathomimetics, vasoactive prostaglandins and prostacyclin synthesis stimulants.</p> <p>10. Has an idea (knows) about the features of antihypertensive therapy in patients with complicated course of arterial hypertension, in pregnant women. Target organ damage: heart, organ of vision, kidneys, central nervous system.</p> <p>11. Able to provide emergency care in acute cerebrovascular accident, cerebral edema, exfoliating aortic aneurysm, eclapsia, acute renal failure, kidney disease. Renovasklar arterial hypertension. Endocrine. Cerebral (neurological). Hemodynamic. Hypertension during pregnancy. Relief of hypertension in a pregnant woman.</p> <p>12. Knows clinical diagnostic and differential diagnostic criteria for ventricular and supraventricular tachycardia, atrioventricular and intraventricular blockades. ECG diagnostics. Indications for permanent or temporary pacing (ECS). Surgical treatment of tachyarrhythmias.</p>	<p>Ziad F. Issa, MD, John M. Miller, MD, Douglas P. Zipes, MD</p> <p>8. ECG Diagnosis Made Easy, Romeo Vecht FRCP, FACC, FESC, 2011</p>	
9	<p>Myocarditis. Cardiomyopathy. Pericarditis</p>	<ol style="list-style-type: none"> 1. Identify and interpret clinical symptoms and syndromes, data from laboratory and objective examination methods in patients with Myocarditis, Cardiomyopathy, Pericarditis, their typical manifestation and course, taking into account age-related aspects. 2. Possess the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population with Myocarditis, Cardiomyopathy, Pericarditis. 3. Possess the initial skills of maintaining current accounting of medical documentation, including in information systems. 	<ol style="list-style-type: none"> 1. Harrison's Principles of internal medicine, 2022 2. HARRISON'S Cardiovascular Medicine, by Joseph Loscalzo, MD, PhD of Harvard Medical School;Chairman, Boston, 2010 3. Acute Coronary Syndromes, second edition, A Companion to Braunwald's Heart Disease, by Pierre Th�eroux, MD Professor of Medicine of Canada, 2011 4. Hypertension: A companion to Brounwald's heart disease, second edition, 2013, by Saunders 	<p>Formative assessment:</p> <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics

		<ol style="list-style-type: none"> 4. Integrates knowledge and skills to ensure an individual approach in the treatment of a particular patient; to teach to make professional decisions based on the analysis of the rationality of diagnostics and the use of evidence-based medicine. 5. Demonstrate communication skills, teamwork skills, organization, and management of diagnostic and treatment process. 6. Apply knowledge of the principles and methods of forming a healthy lifestyle, including healthy family lifestyle. 7. Demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty and confidentiality. 8. Demonstrate abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity. 9. Demonstrate initial researcher skills. 10. Knows the differential diagnosis between cardiomyopathies: Dilated, Hypertrophic, Restrictive. EchoCG diagnostics of various options. 11. Has an idea (knows) about Acute pericarditis, Pericardial effusion, Cardiac tamponade, Postinfarction injury syndrome, Chronic pericardial effusion, Pericardial cysts. 	<p>Cardiac Failure Updates, John JV McMurray MD, Eric FESC FACC, Marc A Pfeffer MD PhD, 2013</p>	
10	Acute rheumatic fever and chronic rheumatic heart disease. Infective endocarditis	<ol style="list-style-type: none"> 1. Identifies and interprets the clinical symptoms (cardiac and non-cardiac manifestations) of acute rheumatic fever (ARF). 2. Interprets laboratory and instrumental data of ARF. 3. Knows the features of ARF therapy with and without involvement of heart valves, concomitant diseases, the presence of an allergic reaction to the penicillin series. 4. Applies knowledge on pathogenesis, clinic and treatment for primary, secondary and tertiary prevention. 5. Knows the clinical manifestations and management of a patient with chronic rheumatic heart disease (CRHD), taking into account age-related aspects, pregnancy and other concomitant diseases. 6. Interprets instrumental data of CRHD. 7. Knows the indications for surgical treatment of CRHD. 8. Identifies and interprets clinical symptoms, laboratory and instrumental data in subacute septic endocarditis, acute bacterial infective endocarditis and prosthetic valve endocarditis. 	<ol style="list-style-type: none"> 1. HARRISON'S Rheumatology, second edition, 2010 2. Oxford Handbook of Rheumatology, fourth edition, 2013 3. Harrison's Principles of internal medicine, 2022 4. Medscape.com 5. Uptodate.com 6. ncbi.nlm.nih.gov/PubMed/ 7. VALVULAR HEART DISEASE, ED. 4, A COMPANION TO BRAUNWALD'S HEART DISEASE, 2009 	Formative assessment: <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics

		9. Knows the features of patient management, taking into account age-related aspects, pregnancy and other concomitant diseases with an unknown pathogen and depending on the etiology.		
11	Rheumatoid arthritis	<ol style="list-style-type: none"> 1. Knows the radiological stages of rheumatoid arthritis (RA). 2. Identifies and interprets clinical symptoms and syndromes, laboratory and instrumental data in RA. 3. Knows options for debut, systemic manifestations (vasculitis, serositis, peripheral neuropathy) and syndromes (Felty, Kaplan, Still), JRA. 4. Makes professional decisions based on the analysis of the rationality of diagnosis and the principles of evidence-based medicine (full diagnosis - severity, features, course options), complications (risk of atherosclerosis, infectious, amyloidosis), as well as treatment taking into account comorbidity and the patient's condition (pregnancy, secondary infection, fibrosis lungs, etc.). 5. Knows the principles of prescribing pulse therapy, basic first- and second-line therapy, extracorporeal methods of treatment. 	<ol style="list-style-type: none"> 1. HARRISON'S Rheumatology, second edition, 2010 2. Oxford Handbook of Rheumatology, fourth edition, 2013 3. Harrison's Principles of internal medicine, 2022 4. Medscape.com 5. Uptodate.com 6. ncbi.nlm.nih.gov/PubMed/ 	Formative assessment: <ol style="list-style-type: none"> 1. Using active learning methods: TBL, CBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics
12	Medical tactics in monoarticular and polyarticular lesions	<ol style="list-style-type: none"> 1. Identifies and interprets clinical symptoms and syndromes, laboratory and instrumental data in microcrystalline arthritis (gout, pyrophosphate arthropathy, basic calcium phosphate crystal deposition disease), osteoarthritis, bacterial (septic) arthritis. Brucella arthritis and spondylitis. Gonoccal arthritis. Lyme disease. Viral arthritis (with viral hepatitis, parvovirus infection) HIV-associated rheumatic symptoms and syndromes. 2. Makes professional decisions based on the analysis of the rationality of diagnosis and the principles of evidence-based medicine (full diagnosis - severity, features, course options, complications, as well as treatment taking into account comorbidity and the patient's condition). 3. Integrates knowledge and skills to provide an individual approach to the treatment of a particular patient. <p>Applies knowledge on pathogenesis, clinic and treatment for primary, secondary and tertiary prevention.</p>	<ol style="list-style-type: none"> 1. HARRISON'S Rheumatology, second edition, 2010 2. Oxford Handbook of Rheumatology, fourth edition, 2013 3. Harrison's Principles of internal medicine, 2022 4. Medscape.com 5. Uptodate.com 6. ncbi.nlm.nih.gov/PubMed/ 	Formative assessment: <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics
13	Seronegative spondylo	<ol style="list-style-type: none"> 1. Knows articular and extra-articular manifestations of seronegative spondyloarthropathies: ankylosing spondylitis (Bekhterev's disease), reactive arthritis, Reiter's disease, 	<ol style="list-style-type: none"> 1. HARRISON'S Rheumatology, second edition, 2010 2. Oxford Handbook of Rheumatology, 	Formative assessment:

	arthropathies	<p>psoriatic arthritis, ulcerative colitis, Crohn's disease, Whipple's disease, celiac disease.</p> <ol style="list-style-type: none"> Whipple's disease in their typical manifestation and course, taking into account age-related aspects. Able to interpret laboratory and instrumental data (including X-ray) in seronegative spondyloarthropathies. <p>Makes professional decisions based on the analysis of the rationality of diagnosis and the principles of evidence-based medicine (full diagnosis - severity, features, course options), complications (risk of atherosclerosis, infectious, amiliodosis), as well as treatment taking into account comorbidity and the patient's condition.</p>	<p>forth edition, 2013</p> <ol style="list-style-type: none"> Harrison's Principles of internal medicine, 2022 Medscape.com Uptodate.com ncbi.nlm.nih.gov/PubMed/ 	<ol style="list-style-type: none"> Using active learning methods: TBL Working with the patient Training in the simulation center Mini-conference of the IWS topics
14	Systemic connective tissue diseases	<ol style="list-style-type: none"> Makes a diagnosis based on clinical criteria for systemic connective tissue diseases (systemic lupus erythematosus, systemic scleroderma, secondary antiphospholipid syndrome, dermatopolymyositis, Sjögren's disease, Sharp's syndrome and overlap syndromes, eosinophilic fasciitis, relapsing polychondritis, fibromyalgia, paraneoplastic syndromes (rheumatic manifestations in oncopathology)). Knows the features of damage to internal organs, the course and prognosis of the disease. Knows the indications for high-dose corticosteroid therapy, pulse therapy, cytostatics, efferent therapy, biological therapy. Knows the features of therapy and patient management, taking into account comorbidity and the patient's condition. 	<ol style="list-style-type: none"> HARRISON'S Rheumatology, second edition, 2010 Oxford Handbook of Rheumatology, forth edition, 2013 Harrison's Principles of internal medicine, 2022 Medscape.com Uptodate.com ncbi.nlm.nih.gov/PubMed/ 	<p>Formative assessment:</p> <ol style="list-style-type: none"> Using active learning methods: TBL Working with the patient Training in the simulation center Mini-conference of the IWS topics
15	Systemic vasculitis	<ol style="list-style-type: none"> Identifies, interprets the clinical symptoms of systemic vasculitis (polyarteritis nodosa, cryoglobulinemic vasculitis, hemorrhagic vasculitis, Behcet's disease, Takayasu's disease, Wegener's granulomatosis, Churg-Straws syndrome, Horton's disease, polymyalgia rheumatica, Buerger's disease, microscopic polyangiitis, Kawasaki disease) by relating them to the principles immunopathogenesis. <p>Makes professional decisions based on the analysis of the rationality of diagnosis and the principles of evidence-based medicine (full diagnosis - severity, features, course options), as</p>	<ol style="list-style-type: none"> HARRISON'S Rheumatology, second edition, 2010 Oxford Handbook of Rheumatology, forth edition, 2013 Harrison's Principles of internal medicine, 2022 Medscape.com Uptodate.com 	<p>Formative assessment:</p> <ol style="list-style-type: none"> Using active learning methods: TBL Working with the patient Training in the simulation center Mini-conference of the IWS topics

		well as treatment, taking into account comorbidity and the patient's condition.		
		<i>Gastroenterology, Hepatology, endocrinology, Nephrology</i>		
16	Diseases of the esophagus. Chronic gastritis, duodenitis. Peptic ulcer of the stomach and duodenum. Anemia. IDA, B-12 - deficiency anemia	<ol style="list-style-type: none"> 1. Identify and interpret clinical symptoms and syndromes, data from laboratory and imaging methods of examination in patients with esophageal disease, Chronic gastritis, duodenitis, Peptic ulcer of the stomach and duodenum, Anemia (IDA, B-12 deficiency), their typical manifestation and course, taking into account age aspects. 2. Possess the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population in diseases of the esophagus, chronic gastritis, duodenitis, peptic ulcer of the stomach and duodenum, anemia (IDA, B-12 deficiency). 3. Possess the initial skills of maintaining current accounting and medical documentation, including in information systems. 4. Integrates knowledge and skills to ensure an individual approach to treatment of a particular patient; to teach to make professional decisions based on the analysis of the rationality of diagnostics and the use of evidence-based medicine. 5. Demonstrate communication skills, teamwork skills, organizational management of diagnostic and treatment process. 6. Apply knowledge of the principles and methods of forming a healthy lifestyle, including healthy family lifestyle. 7. Demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty and confidence. 8. Demonstrate abilities and needs for continuous professional improvement of their knowledge and skills of professional. 9. Demonstrate initial researcher skills. 10. Differential diagnostic criteria for achalasia cardia, esophagospasm, gastroesophageal reflux disease, hiatal hernia. Modern methods of treatment. Barrett's esophagus. 11. Differential diagnosis of the main syndromes in gastroenterology (including those with surgical and infectious pathology): pain, fever, malabsorption, cytolytic, mesenchymal inflammation, astheno-vegetative, 	<ol style="list-style-type: none"> 1. HARRISON'S Gastroenterology and Hepatology, edited by Dan L. Longo, MD, Anthony S. Fauci, MD, Carol A. Langford, MD, MHS, 2010 2. Hepatology- A clinical textbook. Mauss, Berg, Rockstroh, Sarrazin, Wedemeyer. 2016 3. Sherlock's diseases of the liver and biliary system, 12th edition, edited by S.Dooley James, Anna S.F.Lok, Andrew K.Burroughs, E.Jenny Heathcote, 2002 4. Clinical Medicine Eighth Edition, by Professor Parveen Kumar, Dr Michael Clark, 2012 5. Pocket MEDICINE Fourth Edition, by MARC S. SABATINE, M.D., M.P.H. 2011 6. Davidson's principles and practice of Medicine 22th Edition, Brian R., Nicki R. Stuart H., Ian D. 7. Medscape.com 8. Uptodate.com 9. Oxfordmedicine.com 10. https://www.cochranelibrary.com 	Formative assessment: <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics

		<p>hemorrhagic, cholestatic, putrefactive and fermentative dyspepsia, diarrhea.</p> <p>12. Tumors of the esophagus. Criteria for diagnosis. Methods for early detection of the disease. Screening. The role of endoscopy and biopsy in diagnosis. Prevention.</p> <p>13. The role of vitamin B-12 in hematopoiesis. The value of the autoimmune mechanism in pathogenesis. Major clinical syndromes. Laboratory and instrumental diagnostics. The value of myelogram in the diagnosis of megaloblastic anemia.</p> <p>14. Differential diagnosis with folic deficiency anemia, hypoplastic anemia, acute leukemia. Treatment (oxycobalamin, cyanocobalamin).</p>		
17	<p>Cholesterosis, chronic cholecystitis, cholelithiasis. Chronic pancreatitis</p>	<ol style="list-style-type: none"> 1. Identify and interpret clinical symptoms and syndromes, data from laboratory and visual examination methods in patients with Cholesterosis, Chronic cholecystitis, Cholelithiasis, Chronic pancreatitis, their typical manifestation and course, taking into account age-related aspects. 2. Possess the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population in case of Cholesterosis, Chronic cholecystitis, Gallstone disease, Chronic pancreatitis. 3. Possess initial skills in maintaining current accounting and reporting medical documentation, including information systems. 4. Integrates knowledge and skills to ensure an individual approach in the treatment of a particular patient; to teach to make professional decisions based on the analysis of the rationality of diagnostics and the principles of evidence-based medicine. 5. Demonstrate communication skills, teamwork skills, organization management of diagnostic and treatment process. 6. Apply knowledge of the principles and methods of forming lifestyle, including healthy family lifestyle. 	<ol style="list-style-type: none"> 1. HARRISON'S Gastroenterology and Hepatology, edited by Dan L. Longo, MD, Anthony S. Fauci, MD, Carol A. Langford, MD, MHS, 2010 2. Hepatology- A clinical textbook. Mauss, Berg, Rockstroh, Sarrazin, Wedemeyer. 2016 3. Sherlock's diseases of the liver and biliary system, 12th edition, edited by S.Dooley James, Anna S.F.Lok, Andrew K.Burroughs, E.Jenny Heathcote, 2002 	<p>Formative assessment:</p> <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics

		<ol style="list-style-type: none"> 7. Demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty and confidentiality. 8. Demonstrate abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity. 9. Demonstrate initial researcher skills. 10. Ultrasound methods for diagnosing stones in the gallbladder, retrograde cholangiopancreatography. Laparoscopic cholecystectomy. Management of the patient after cholecystectomy. Derivatives of ursodeoxycholic acid. 11. Functions of the pancreas. Features of the ductal system of the pancreas. Classification of chronic pancreatitis. Retrograde cholangiopancreatography. Biochemical markers of chronic pancreatitis. Coprogram. 		
18	Nonspecific ulcerative colitis. Crohn's disease	<ol style="list-style-type: none"> 1. Identify and interpret clinical symptoms and syndromes, laboratory and imaging data in patients with non-specific ulcerative colitis, Crohn's disease, their typical manifestation and course, taking into account age-related aspects. 2. Possess the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population with non-specific ulcerative colitis, Crohn's disease. 3. Possess the initial skills of maintaining current accounting and medical documentation, including in information systems. 4. Integrates knowledge and skills to ensure an individual approach to treatment of a particular patient; to teach to make professional decisions based on the analysis of the rationality of diagnostics and therapy of evidence-based medicine. 5. Demonstrate communication skills, teamwork skills, organization and management of diagnostic and treatment process. 6. Apply knowledge of the principles and methods of forming a healthy lifestyle, including healthy family lifestyle. 7. Demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty and confidentiality. 	<ol style="list-style-type: none"> 1. HARRISON'S Gastroenterology and Hepatology, edited by Dan L. Longo, MD, Anthony S. Fauci, MD, Carol A. Langford, MD, MHS, 2010 2. Hepatology- A clinical textbook. Mauss, Berg, Rockstroh, Sarrazin, Wedemeyer. 2016 3. Sherlock's diseases of the liver and biliary system, 12th edition, edited by S.Dooley James, Anna S.F.Lok, Andrew K.Burroughs, E.Jenny Heathcote, 2002 4. Clinical Medicine Eighth Edition, by Professor Parveen Kumar, Dr Michael Clark, 2012 	<p>Formative assessment:</p> <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics

		<ol style="list-style-type: none"> 8. Demonstrate abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity. 9. Demonstrate initial researcher skills. 10. Has an idea (knows) about diseases that manifest themselves as diarrhea (tumors of the gastrointestinal tract, ulcerative colitis, Crohn's disease, chronic enterocolitis, mono- and disaccharidase malabsorption, celiac disease, functional disorders, infectious diseases). 11. Knows malabsorption syndrome. Constipation (dilated colon, overdistended colon syndrome, colon tumors, diverticulosis, distal colon disease, irritable bowel syndrome). 12. Tumors of the intestine. Clinical manifestations. Methods of diagnosis and treatment. Screening of colorectal cancer. 13. Diagnostics of hypo and hypervitaminosis, microelementoses. 		
19	Viral hepatitis. Diagnostics and clinical manifestations, antiviral therapy. Hypoplastic and hemolytic anemias. Thrombocytopenia	<ol style="list-style-type: none"> 1. Identify and interpret clinical symptoms and syndromes, data from laboratory and visual examination methods in patients with viral hepatitis, anemia (hypoplastic and hemolytic), thrombocytopenia, their typical manifestation and course, taking into account age-related aspects. 2. Possess the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population in case of viral hepatitis, anemia (hypoplastic and hemolytic), thrombocytopenia. 3. Possess the initial skills of maintaining current accounting and medical documentation, including in information systems. 4. Integrates knowledge and skills to ensure an individual approach to treatment of a particular patient; to teach to make professional decisions based on the analysis of the rationality of diagnostics and treatment of evidence-based medicine. 5. Demonstrate communication skills, teamwork skills, organizational management of diagnostic and treatment process. 6. Apply knowledge of the principles and methods of forming a healthy lifestyle, including healthy family lifestyle. 	<ol style="list-style-type: none"> 1. HARRISON'S Gastroenterology and Hepatology, edited by Dan L. Longo, MD, Anthony S. Fauci, MD, Carol A. Langford, MD, MHS, 2010 2. Hepatology- A clinical textbook. Mauss, Berg, Rockstroh, Sarrazin, Wedemeyer. 2016 3. Sherlock's diseases of the liver and biliary system, 12th edition, edited by S.Dooley James, Anna S.F.Lok, Andrew K.Burroughs, E.Jenny Heathcote, 2002 4. Clinical Medicine Eighth Edition, by Professor Parveen Kumar, Dr Michael Clark, 2012 5. Pocket MEDICINE Fourth Edition, by MARC S. SABATINE, M.D., M.P.H. 2011 6. Davidson's principles and practice of Medicine 22th Edition, Brian R., Nicki R. Stuart H., Ian D. 7. Medscape.com 	Formative assessment: <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics

		<p>7. Demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty and confidentiality.</p> <p>8. Demonstrate abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity.</p> <p>9. Demonstrate initial researcher skills.</p> <p>10. Knows morphological diagnostics (Knodell index, fibrosis level assessment - Metavir). Outcomes. Primary prevention, vaccination of the population and risk groups.</p> <p>11. Differential diagnosis of the main syndromes in liver pathology: cholestasis, cytolytic, hepatocellular insufficiency, portal hypertension, ascites, diffuse change, volumetric formation in the liver, etc.</p> <p>12. Treatment with antiviral drugs - standard antiviral therapy for hepatitis C, hepatitis B, B + C, B + D. The main indications and contraindications for the appointment of antiviral therapy. Predictors of treatment effectiveness.</p> <p>13. Features of the functional state of the blood system in oncological patients. Features of the functional state of the blood system in liver diseases, alcoholism, kidney diseases, chronic inflammation (rheumatic diseases), infectious diseases, HIV. Aplastic anemia, aplastic syndrome and partial red cell aplasia.</p> <p>14. Knowledge of hemograms, myelograms, trepanobiopsy data, specific tests, morphological changes in formed elements in blood smears. Principles of treatment. Dispensary monitoring.</p>	<p>8ishupdate.com</p>	
20	<p>Liver cirrhosis. Complications of liver cirrhosis. Gastrointestinal tumors</p>	<p>1. Identify and interpret clinical symptoms and syndromes, data from laboratory and imaging methods of examination in patients with liver cirrhosis, tumor of the gastrointestinal tract, their typical manifestation and course, taking into account age-related aspects.</p> <p>2. Possess the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population with cirrhosis of the liver, tumors of the gastrointestinal tract.</p>	<p>1. HARRISON'S Gastroenterology and Hepatology, edited by Dan L. Longo, MD, Anthony S. Fauci, MD, Carol A. Langford, MD, MHS, 2010</p> <p>2. Hepatology- A clinical textbook. Mauss, Berg, Rockstroh, Sarrazin, Wedemeyer. 2016</p> <p>3. Sherlock's diseases of the liver and biliary system, 12th edition, edited by S.Dooley James, Anna S.F.Lok, Andrew</p>	<p>Formative assessment:</p> <p>1. Using active learning methods: TBL</p> <p>2. Working with the patient</p> <p>3. Training in the simulation center</p>

		<ol style="list-style-type: none"> 3. Possess the initial skills of maintaining current accounting and medical documentation, including in information systems. 4. Integrates knowledge and skills to ensure an individual approach to the treatment of a particular patient; to teach to make professional decisions based on the analysis of the rationality of diagnostics and the principles of evidence-based medicine. 5. Demonstrate communication skills, teamwork skills, organizational management of diagnostic and treatment process. 6. Apply knowledge of the principles and methods of forming a healthy lifestyle, including healthy family lifestyle. 7. Demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty and confidentiality. 8. Demonstrate abilities and needs for continuous professional training and improvement of their knowledge and skills of professional activity. 9. Demonstrate initial researcher skills. 10. Knows the morphological classification according to Metavir, Knodell. Treatment. The main groups of drugs. Mechanism of action. Management of patients with cirrhosis of the liver. Indications for porto-caval shunting, liver transplantation (the concept of MELD). Management of the patient after liver resection, liver transplantation - the concept. 11. The syndrome of portal hypertension. Complications: bleeding from varicose veins of the esophagus, portal gastropathy. Emergency care for bleeding from varicose veins of the esophagus, primary and secondary prevention. Hepatic encephalopathy. Evaluation of hepatic encephalopathy. Acute hepatic encephalopathy, causes of development. Severity assessment. Urgent care. 12. Ascites and complications of ascites. Steps in the treatment of ascites. Refractory ascites, causes. Laparocentesis. Spontaneous bacterial peritonitis. Hepato-renal syndrome, hepato-pulmonary syndrome. 13. Hepatocellular carcinoma. Criteria for diagnosis. The role of alphafetoprotein and ultrasound screening in diagnosis. PIVKA. Primary prevention. 	<p>and Reporting, E.Jenny Heathcote, 2002</p> <ol style="list-style-type: none"> 4. Medscape.com 5. daptiv.com 6. Oxfordmedicine.com 7. Cipla.com 8. medline.com 9. http://medelement.com/ 	<p>4. Mini-conference of the IWS topics</p>
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		<p>14. Tumors of the esophagus, stomach. Criteria for diagnosis. Methods for early detection of the disease. The role of endoscopy and biopsy in diagnosis. Prevention.</p> <p>15. Tumors of the intestine. Clinical manifestations. Methods of diagnosis and treatment.</p>		
21	Diabetes mellitus. Emergencies in diabetes mellitus. Obesity and metabolic syndrome	<ol style="list-style-type: none"> 1. Apply knowledge of the etiology of type 1 and type 2 diabetes in the process of diagnosis and treatment. 2. Be able to conduct targeted questioning and physical examination, taking into account age characteristics in patients with type 1 and type 2 diabetes. 3. Identify and use diagnostic and therapeutic interventions to differentiate between type 1 and type 2 diabetes. 4. Interpret the basic data of laboratory diagnostics. 5. Integrate knowledge for the identification and differential diagnosis of emergency conditions in diabetes. 6. Know the classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications of insulins. 7. Demonstrate the skills of independent work, effective communication in the learning process and teamwork, skills of working with information resources. 8. Hypoglycemic, hyperosmolar and lacticidemic coma: causes, pathogenesis, clinic, treatment. 9. Obesity and metabolic syndrome. Definition. Pathogenesis. Clinical manifestations, forms. Diagnosis and principles of therapy of metabolic syndrome. 10. Classes of lipoproteins (LP), fatty acids, phospholipids. Clinical manifestations of dyslipidemia. Laboratory diagnosis of disorders. 	<ol style="list-style-type: none"> 1. HARRISON'S Endocrinology, 2nd edition, by J. Larry Jameson, MD, PhD, 2010 2. Oxford Handbook of Endocrinology and Diabetes, Third edition, 2014 3. Harrison's Principles of internal medicine, 2022 4. Signs & Symptoms IN PEDIATRICS, by Henry M. Adam, MD, FAAP Jane Meschan Foy, MD, FAAP, 2015 5. PRINCIPLES of PHARMACOLOGY, Fourth Edition, 2017 6. medline.com 7. https://medelement.com/ 8. Medscape.com 9. Uptodate.com 	Formative assessment: <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics
22	Diseases of the thyroid and parathyroid glands	<ol style="list-style-type: none"> 1. Identify and interpret clinical symptoms and syndromes, laboratory and imaging data in patients with thyroid and parathyroid diseases (Thyrotoxicosis. Thyrotoxic heart. Thyrotoxic crisis. Hypothyroidism. Autoimmune thyroiditis (Hashimoto's goiter). Endemic goiter. Hypercalcemia and hypocalcemia. Hypoparathyroidism), their typical manifestation and course, taking into account age-related aspects. 	<ol style="list-style-type: none"> 1. HARRISON'S Endocrinology, 2nd edition, by J. Larry Jameson, MD, PhD, 2010 2. Oxford Handbook of Endocrinology and Diabetes, Third edition, 2014 3. Harrison's Principles of internal medicine, 2022 4. PRINCIPLES of PHARMACOLOGY, 	Formative assessment: <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient

		<ol style="list-style-type: none"> 2. Possess the skills of basic medical treatment, diagnostic and preventive measures to provide medical care to the population in diseases of the thyroid gland and parathyroid glands (Thyrotoxicosis. Thyrotoxic heart. Thyrotoxic crisis. Hypothyroidism. Autoimmune thyroiditis (Hashimoto's goiter). Endemic goiter. Hypercalcemia and hypocalcemia. Hypoparathyroidism). 3. Possess the initial skills of maintaining current accounting and medical documentation, including in information systems. 4. Integrates knowledge and skills to ensure an individual appropriate treatment of a particular patient; to teach to make professional decisions based on the analysis of the rationality of diagnostics and the use of evidence-based medicine. 5. Demonstrate communication skills, teamwork skills, organizational management of diagnostic and treatment process. 6. Apply knowledge of the principles and methods of forming a healthy lifestyle, including healthy family lifestyle. 7. Demonstrate commitment to professional values such as altruism, compassion, empathy, responsibility, honesty and confidence. 8. Demonstrate abilities and needs for continuous professional improvement of their knowledge and skills of professional practice. 9. Demonstrate initial researcher skills. 	<p>Fourth Edition, 2017</p> <ol style="list-style-type: none"> 5. medline.com 6. https://medelement.com/ 7. Medscape.com 8. Uptodate.com 	<ol style="list-style-type: none"> 3. Training in the simulation center 4. Mini-conference of the IWS topics
23	Diseases of the hypothalamic-pituitary system and adrenal glands	<ol style="list-style-type: none"> 1. Be able to conduct targeted questioning and physical examination, taking into account age characteristics in patients with endocrine pathology. 2. Identify and use diagnostic and therapeutic interventions related to the adrenal glands. 3. Interpret the basic data of laboratory and visual diagnostics of the pathology of the adrenal glands. 4. Integrate knowledge to identify the main pathologies of the adrenal glands: Hyperaldosteronism, Hypercorticism Syndrome, Hypocorticism Syndrome, Addison's Disease, Pheochromocytoma, Acute Adrenal Insufficiency, Waterhouse-Frederiksen Syndrome, Itsenko-Cushing's Syndrome. 5. Know the classification, mechanism of action, pharmacokinetics, side effects, indications and 	<ol style="list-style-type: none"> 1. HARRISON'S Endocrinology, 2nd edition, by J. Larry Jameson, MD, PhD, 2010 2. Oxford Handbook of Endocrinology and Diabetes, Third edition, 2014 3. Harrison's Principles of internal medicine, 2022 4. PRINCIPLES of PHARMACOLOGY, Fourth Edition, 2017 5. medline.com 6. https://medelement.com/ 7. Medscape.com 8. Uptodate.com 	<p>Formative assessment:</p> <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics

		<p>contraindications of the main drugs for the treatment of adrenal pathology: Spironolactone, Calcium channel blockers, Alpha-adrenoblockers (Doxazosin), Hydrocortisone, Fludrocortisone.</p> <ol style="list-style-type: none"> 6. Demonstrate the skills of independent work, effective communication in the learning process and teamwork, skills of working with information resources. 7. Identify, use and interpret diagnostic and therapeutic interventions related to hypothalamic-pituitary system (HPS). 8. Interpret the main data of laboratory and visual diagnostics of HPS. 9. Know the pathogenesis of clinical manifestations in pathology of HPS. 10. Integrate knowledge to identify the main pathology of HPS: Acromegaly, Gigantism, Diabetes Insipidus, Hyperprolactinemia, S. Shikhana, Secondary hypothyroidism, Nephrogenic diabetes insipidus, Hypogonadism. 11. Know the classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications of the main drugs for the treatment of HPS: Dopamine agonists (Cabergoline, Bromkriptine), Somatostatin drugs (Somatulin, Octreotide), Desmopressin analogs (Minirin), Testosterone analogs, Levothyroxine. 12. Know, be able to diagnose and treat various pathologies of HPS. 13. Demonstrate the skills of independent work, effective communication in the learning process and teamwork, skills of working with information resources. 		
24	Major syndromes in kidney disease, urinary tract infection	<ol style="list-style-type: none"> 1. Knows the pathogenesis and differential diagnosis of the main syndromes in nephrology: hematuria, proteinuria, nephritic syndrome, nephrotic syndrome, renal failure syndrome (acute renal pathology, end-stage chronic kidney disease), dysuria, arterial hypertension, pain syndrome, tubulointerstitial syndromes. 2. Apply knowledge on the pathogenesis of urinary tract infections in the process of diagnosis and treatment. 	<ol style="list-style-type: none"> 1. HARRISON'S Endocrinology, 2nd edition, by J. Larry Jameson, MD, PhD, 2010 2. Oxford Handbook of Endocrinology and Diabetes, Third edition, 2014 3. Harrison's Principles of internal medicine, 2022 4. PRINCIPLES of PHARMACOLOGY, 	Formative assessment: <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient

	<ol style="list-style-type: none"> 3. Conduct targeted questioning and physical examination, taking into account age characteristics in patients with UTI. 4. Identify and differentiate complicated and uncomplicated UTIs, infections of the upper (pyelonephritis) and lower urinary tract (cystitis, urethritis). 5. Integrate knowledge to identify and differential diagnosis of the main manifestations of UTI, urolithiasis. 6. Substantiate and prescribe examination methods, with the interpretation of the results of laboratory and instrumental diagnostics of UTI. 7. Apply the principles of diagnosis and treatment, taking into account the clinical and laboratory manifestations of UTI. 8. Know the classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications of the main drugs for the treatment of UTIs - antibacterial drugs, uroseptics, antimicrobials, antispasmodics, litholytics. 9. Demonstrate the skills of independent work, effective communication in the learning process and teamwork, skills of working with information resources. 10. Apply knowledge on the pathogenesis of nephrotic syndrome in the process of diagnosis and treatment. 11. Conduct targeted questioning and physical examination, taking into account age characteristics in patients with nephritic syndrome. 12. Identify and differentiate edematous syndrome, proteinuria syndrome. 13. Integrate knowledge to identify and differential diagnosis of the main manifestations of nephritic syndrome. 14. Substantiate and assign methods of examination, with the interpretation of the results of laboratory and morphological diagnosis of nephritic syndrome. 	<p>Fourth Edition, 2017</p> <ol style="list-style-type: none"> 5. medline.com 6. https://medelement.com/ 7. Medscape.com 8. Uptodate.com 9. Harrison's nephrology and acid-base disorders/ J. Larry Jameson, 2010 10. Nephrology secrets. —3rd ed. / Edgar V. Lerma, Allen R. Nissenson, New York 2012 	<ol style="list-style-type: none"> 3. Training in the simulation center 4. Mini-conference of the IWS topics
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		<ol style="list-style-type: none"> 15. Apply the principles of diagnosis and treatment, taking into account the clinical and morphological manifestations of nephrotic syndrome. 16. Differentiate the morphological manifestations of nephrotic syndrome with clinical and morphological parallels. 17. Know the classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications of the main drugs for the treatment of nephrotic syndrome - corticosteroids, cytostatics, diuretics, ACE inhibitors, CCBs, etc. 18. Demonstrate the skills of independent work, effective communication in the learning process and teamwork, skills of working with information resources. 19. Acute and chronic tubulointerstitial nephritis: medicinal, infectious, idiopathic, with tumors, heavy metal intoxication Secondary kidney damage in diseases of internal organs: hypertensive nephropathy and nephroangiosclerosis, diabetic, gouty, paraneoplastic nephropathy. Kidneys during aging (involutive changes), vascular lesions of the kidneys, features of the course of kidney diseases, principles of treatment. 		
25	Glomerular diseases	<ol style="list-style-type: none"> 1. Apply knowledge on the pathogenesis of nephritic syndrome in the process of diagnosis and treatment. 2. Conduct targeted questioning and physical examination, taking into account age characteristics in patients with nephritic syndrome. 3. Integrate knowledge to identify and differentially diagnose the main manifestations of nephritic syndrome. 4. Substantiate and assign methods of examination, with the interpretation of the results of laboratory and morphological diagnosis of nephritic syndrome. 5. Apply the principles of diagnosis and treatment, taking into account the clinical and morphological manifestations of nephritic syndrome. 6. Differentiate morphological manifestations of nephritic 	<ol style="list-style-type: none"> 1. Harrison's nephrology and acid-base disorders/ J. Larry Jameson, 2010 2. Nephrology secrets. —3rd ed. / Edgar V. Lerma, Allen R. Nissenson, New York 2012 3. Harrison's Principles of internal medicine, 2022 4. PRINCIPLES of PHARMACOLOGY, Fourth Edition, 2017 5. medline.com 6. https://medelement.com/ 7. Medscape.com 8. Uptodate.com 	Formative assessment: <ol style="list-style-type: none"> 1. Using active learning methods: TBL 2. Working with the patient 3. Training in the simulation center 4. Mini-conference of the IWS topics

		<p>syndrome with clinical and morphological parallels.</p> <ol style="list-style-type: none"> 7. Know the classification, mechanism of action, pharmacokinetics, side effects, indications and contraindications of the main drugs for the treatment of nephritic syndrome - ACE inhibitors, CCBs, diuretics, corticosteroids, cytostatics. 8. Demonstrate the skills of independent work, effective communication in the learning process and teamwork, skills of working with information resources. 9. Morphological variants of glomerulopathies: MCGN (minimal change glomerulonephritis), FSGN (Focal segmental glomerulosclerosis), membranous nephropathy, MPGN types 1,2,3 (membranoproliferative glomerulonephritis); mesangial glomerulonephritis. 10. Has an idea about the syndrome of rapidly progressive glomerulonephritis. Principles of diagnostics. Hemolytic-uremic syndrome, Thrombotic microangiopathies. Features of kidney damage in systemic connective tissue diseases (SLE - systemic lupus erythematosus, SSD - systemic scleroderma), with systemic vasculitis (polyarteritis nodosa, mixed cryoglobulinemia, hemorrhagic vasculitis, Wegener's granulomatosis, Churg-Strauss syndrome, microscopic polyangiitis); Goodpasture's syndrome, Antiphospholipid syndrome. Features of antibodies to the cytoplasm of neutrophils - dependent glomerulonephritis. 11. Knows the differential diagnosis of preeclampsia and eclampsia of pregnancy and glomerulonephritis. Features of treatment and management of patients with kidney pathology during pregnancy. Emergency care for preeclampsia and eclampsia of pregnant women. 		
26	Acute kidney injury	<ol style="list-style-type: none"> 1. Know the etiology, pathogenesis and classification of acute renal pathologies. RIFLE classification. 2. Identify and differentiate clinical symptoms and syndromes in renal insufficiency. 3. Conduct targeted questioning and physical examination, taking into account age characteristics in patients with renal 	<ol style="list-style-type: none"> 1. Harrison's nephrology and acid-base disorders/ J. Larry Jameson, 2010 2. Nephrology secrets. —3rd ed. / Edgar V. Lerma, Allen R. Nissenson, New York 2012 3. Harrison's Principles of internal medicine, 2022 	Formative assessment: 1. Using active learning methods: TBL

		<p>insufficiency.</p> <ol style="list-style-type: none"> Substantiate and prescribe examinations with the interpretation of the results of laboratory and instrumental methods of examination. Integrate knowledge for the detection and differential diagnosis of acute kidney injury and chronic kidney disease. Apply the principles of diagnosis and treatment taking into account age-related features. Identify and assess the severity of acute kidney injury to address the issue of connecting renal replacement therapy - acute dialysis. Know the features of the pharmacokinetics and pharmacodynamics of the main drugs used in nephrology, depending on the decrease in kidney function. Carry out diagnostics and treatment of disorders of ionic and acid-base homeostasis. <p>Demonstrate the skills of independent work, effective communication in the learning process and teamwork, skills of working with information resources.</p>	<ol style="list-style-type: none"> PRINCIPLES of PHARMACOLOGY, Fourth Edition, 2017 medline.com https://medelement.com/ Medscape.com Uptodate.com 	<ol style="list-style-type: none"> Working with the patient Training in the simulation center Mini-conference of the IWS topics
27	Chronic kidney disease	<ol style="list-style-type: none"> Know the etiology, pathogenesis and classification of chronic kidney disease (CKD). Identify and differentiate clinical symptoms and syndromes in renal insufficiency. Conduct targeted questioning and physical examination, taking into account age characteristics in patients with renal insufficiency. Substantiate and prescribe examinations with the interpretation of the results of laboratory and instrumental methods of examination. Integrate knowledge for the detection and differential diagnosis of acute kidney injury and chronic kidney disease. Apply the principles of diagnosis and treatment taking into account age-related features. Identify and assess the severity of chronic kidney disease to address the issue of connecting renal replacement therapy - program hemodialysis (chroniodialysis). 	<ol style="list-style-type: none"> Harrison's nephrology and acid-base disorders/ J. Larry Jameson, 2010 Nephrology secrets. —3rd ed. / Edgar V. Lerma, Allen R. Nissenson, New York 2012 Harrison's Principles of internal medicine, 2022 PRINCIPLES of PHARMACOLOGY, Fourth Edition, 2017 medline.com https://medelement.com/ Medscape.com Uptodate.com 	<p>Formative assessment:</p> <ol style="list-style-type: none"> Using active learning methods: TBL Working with the patient Training in the simulation center Mini-conference of the IWS topics

	8. Know the features of the pharmacokinetics and pharmacodynamics of the main drugs used in nephrology, depending on the decrease in kidney function. 9. Carry out diagnostics and treatment of disorders of ionic and acid-base homeostasis. 10. Carry out renoprophylaxis, correction of anemia, arterial hypertension, metabolic acidosis in the early stages of CKD. Demonstrate the skills of independent work, effective communication in the learning process and teamwork, skills of working with information resources.		
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**RUBRICATOR FOR ASSESSING LEARNING OUTCOMES
with summative assessment**

Rating calculation formula

For the 4th course as a whole- overall admission rating (OAR)

Medical history	30%
Border control 1	70%
Total for BC-1	100%
360 rating	10%
Science project	10%
Medical history	20%
Border control 2	60%
Total for BC -2	100%

Final score: OAR 60% + exam 40%

Exam (2 stages) – MSQ testing (40%) + OSKE (60%)

Team based learning – TBL

	%
Individual -- (IRAT)	30
Group -- (GRAT)	20
Appeal	10
Case rating -	30
Companion rating (bonus)	10
	100%

Case-based learning CBL

		%
1	Interpreting survey data	10
2	Interpretation of physical examination findings	10
3	Preliminary diagnosis, justification, PD, examination plan	10
4	Interpretation of lab-instrumental examination data	10
5	Clinical diagnosis, problem sheet	10
6	Management and treatment plan	10
7	The validity of the choice of drugs and treatment regimens	10
8	Evaluation of effectiveness, prognosis, prevention	10
9	Special problems and questions on the case	10
10	Companion rating (bonus)	10
		100%

**360° assessment checklist for student
CURATOR and Lecturer**

FULL NAME of Curator _____ Signature _____

	Very well	Criteria and points	Unsatisfactory
1	<p>Constantly preparing for classes: For example, backs up statements with relevant references, makes short summaries Demonstrates effective teaching skills, assists in teaching others</p>	<p>Preparing for classes 10 8 6 4 2 0</p>	<p>Constantly not preparing for class For example, insufficient reading and study of problematic issues, makes little contribution to the knowledge of the group, does not analyze, does not summarize the material.</p>
2	<p>Takes responsibility for their own learning: For example, manages their learning plan, actively tries to improve, critically evaluates information resources</p>	<p>A responsibility 10 8 6 4 2 0</p>	<p>Takes no responsibility for their own learning: For example, depends on others to complete the learning plan, hides mistakes, rarely critically analyzes resources.</p>
3	<p>Actively participates in the training of the group: For example, actively participates in discussions, willingly takes tasks</p>	<p>Participation 10 8 6 4 2 0</p>	<p>Not active in the group training process: For example, does not participate in the discussion process, is reluctant to accept assignments</p>
4	<p>Demonstrates effective group skills For example, takes the initiative, shows respect and correctness towards others, helps to resolve misunderstandings and conflicts.</p>	<p>Group skills 10 8 6 4 2 0</p>	<p>Demonstrates ineffective group skills For example, inappropriately intervening, showing poor discussion skills by interrupting, avoiding or ignoring others, dominating or impatient</p>
5	<p>Skilled in communicating with peers: For example, actively listening, receptive to non-verbal and emotional cues Respectful attitude</p>	<p>Communications 10 8 6 4 2 0</p>	<p>Difficulty communicating with peers For example, poor listening skills, unable or disinclined to listen to non-verbal or emotional cues Use of obscene language</p>
6	<p>Highly developed professional skills: Eager to complete tasks, seek opportunities for more learning, confident and skilled Compliance with ethics and deontology in relation to patients and medical staff Observance of subordination.</p>	<p>Professionalism 10 8 6 4 2 0</p>	<p>Clumsy, fearful, refusing to try even basic procedures Inferiority in professional behavior - causing harm to the patient, rude disrespectful attitude towards medical staff, colleagues</p>
7	<p>High introspection:</p>	<p>Reflection</p>	<p>Low introspection:</p>

	For example, recognizes the limitations of their knowledge or abilities without becoming defensive or rebuking others.	10 8 6 4 2 0	For example, needs more awareness of the limits of understanding or ability and does not take positive steps to correct
8	Highly developed critical thinking: For example, appropriately demonstrates skill in performing key tasks such as generating hypotheses, applying knowledge to case studies, critically evaluating information, drawing conclusions aloud, explaining the process of thinking	Critical thinking 10 8 6 4 2 0	Critical Thinking Deficiency: For example, has difficulty completing key tasks. As a rule, does not generate hypotheses, does not apply knowledge in practice either because of their lack or because of inability (lack of induction), does not know how to critically evaluate information
9	Fully adheres to the rules of academic conduct with understanding, suggests improvements in order to increase efficiency. Complies with the ethics of communication - both oral and written (in chats and appeals)	Compliance with the rules of academic conduct 10 8 6 4 2 0	Пренебрегает правилами, мешает другим членам коллектива Neglects the rules, interferes with other members of the team
10	Fully follows the rules with full understanding of them, encourages other members of the group to adhere to the rules Strictly adheres to the principles of medical ethics and PRIMUM NON NOCERE	Compliance with the rules of conduct in the hospital 10 8 6 4 2 0	Breaks the rules. Encourages and provokes other members of the group to break the rules Creates a threat to the patient
	Maximum	100 points	

* gross violation of professional behavior, rules of conduct in the hospital - or a decrease in the grade for boundary control or cancellation; ethical committee

Such violations are a threat to the health of patients due to action (for example, smoking on the territory of the hospital) or inaction; rudeness and rudeness towards any person (patient, classmate, colleague, teacher, doctor, medical staff)

Point-rating assessment (check-list) of medical history management (maximum 100 points)

№	Criteria	10	8	6	4	2
		<i>Excellent</i>	<i>Good</i>	<i>Satisfactory</i>	<i>Need correction</i>	<i>Bad</i>
1	Patient complaints: major and minor	Completely and systematically, with an understanding of important details	Accurate and complete	basic information	Incomplete or inaccurate, some details are missing	Misses important
2	Collecting an anamnesis of the disease					
3	Anamnesis of life					
4	Objective status - general examination	Completely and systematically, with an understanding of important details	Consistently and correctly	Identification of main data	Incomplete or not quite correct, not attentive to patient comfort	Inappropriate data
5	Nervous system		Complete, effective, technically correct application of all examination skills, physical examination with minor errors, or corrected during execution	Revealed basic data Physical examination skills learned	Incomplete or Inaccurate Physical examination skills need to be improved	Important data are missing. Inappropriate physical examination skills
6	Medical history presentation	Maximum full description and presentation Understands the problem in a complex, connects with the patient's features	precise, focused; choice of facts shows understanding	Record is by form, includes all basic information;	Many important omissions, inaccurate or unimportant facts are often included	Lack of control of the situation, many important omissions, many clarifying questions

Point-rating assessment (check-list) of the ISW (independent student's work) - creative task (maximum 90 points) + bonuses for English and time management

		10	8	4	2
1	Problem solving	The organized concentrated, allocates all questions which are falling into to the main revealed problem with a comprehension of a concrete clinical situation	Organized, the concentrated, allocates all questions which are falling into to the main revealed problem, but there is no comprehension of a concrete clinical situation	Not the concentrated, Derivation on the questions which are not falling into to the main revealed problem	Inaccurate, misses the main thing, disharmonious data.
2	Information	All necessary information on a subject in the free, serial, logical manner is completely conveyed The product form is adequately chosen	All necessary information in a logical manner, but with shallow inaccuracies is conveyed	All necessary information on a subject is explained chaotically, with not gross errors	Important information on a subject, gross errors is not reflected
3	Significance	Material is chosen on the basis of authentically established facts. Manifestation of a comprehension on the level or quality of proofs	Some conclusions and the conclusions are formulated on the basis of assumptions or the incorrect facts. There is no complete comprehension of level or quality of proofs	Not the sufficient comprehension of a problem, some conclusions and the conclusions are based on the inexact and not proved data – doubtful resources are used	Conclusions and the conclusions are not proved or irregular
4	Logic	logical and well reasoning, has internal unity, provisions in a product follow one of another and are logically interdependent between themselves	Has internal unity, provisions of a product one of another follows, but there are inaccuracies	There is no sequence and logicity in statement, but it is possible to keep track of the main idea	Jumps from one on another, it is difficult to catch the main idea
5	Recourses	Literary data are submitted in logical interrelation, show deep study of the main and padding informational resources	Literary data show study of the main literature	Only ordinary recourses	Inconsistency and randomness in statement of data, an inconsistency There is no knowledge of the main textbook

					Using of Google
6	Practical application	High	Good	moderate	no
7	Patient focusing	High	Good	moderate	no
8	Applicability in future practice	High	Good	moderate	no
9	Preseantion	Correctly, to the place all opportunities of Power Point or other e-softs, the free possession of material, a sure manner of statement are used	It is overloaded or are insufficiently used visual materials, inexact possession of material	Visual materials are not informative	Does not own material, is not able to explain it
b o n u s	Time management*	10 For before deadline	In time	Good quality but a little late Minus 2-4	After deadline more than 24 hours Minus 10
b o n u s	Rating**	10 points additional	Outstanding work, for example: The best work in group Creative approach Innovative approach to realization of a task According to the proposal of group		
* The deadline is determined by the teacher, as a rule - the day of the boundary control ** thus, you can get 90 points as much as possible, to get above 90-you need to show a result higher than expected					