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

AGREED
Vice-Rector for Academic Affairs,

_____N.V. Loskutova

April 17, 2025

Decision of the CCMC
April 17, 2025

Protocol No. 7

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

Protocol No. 15

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

_____I.V. Zhukovets

April 22, 2025

ДОКУМЕНТ ПОДПИСАН
ЭЛЕКТРОННОЙ ПОДПИСЬЮ

Сертификат: 50AB2242604E64520B52614FA420034A
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EDUCATIONAL PROGRAM

discipline «Fundamentals of Rheumatology»

Specialty: 31.05.01 General Medicine
Course: 5
Semester: 10
Total hours: 72 hrs.
Total credits: 2 credit units
Control form: credit-test, 10 semester

Blagoveshchensk, 2025

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

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APPROVED Department of Hospital Therapy with a Course in Pharmacology named after Professor Yu.S. Landyshev,
Protocol No. 8 dated April 16, 2025

Head of the Department of Hospital Department of Hospital Therapy with a Course in Pharmacology named after Professor Yu.S. Landyshev, Holder of an Advanced Doctorate (Doctor of Science) in Medical Sciences,
Full Professor _____V.V. Voitsekhovsky

Conclusion of the Expert Commission on the review of the Educational Programs:
Protocol No. 1 dated April 16, 2025
Expert of the Expert Commission, Holder of an Advanced Doctorate (Doctor of Science) in Medical Sciences, Associate Professor_____E.E. Molchanova

APPROVED at the meeting of the CMC No.3: Protocol No. 6 dated April 17, 2025
Chairman of the CMC No. 3
Holder of an Advanced Doctorate (Doctor of Science) in Medical Sciences,
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AGREED: Dean of the Faculty of General Medicine,
Ph.D. of Medical Sciences _____ N.G. Brush

April 17, 2025

CONTENTS OF THE WORK PROGRAM

1. EXPLANATORY NOTE

1.1.Characteristics of the discipline

In recent years, there has been an increase in rheumatic diseases, which is due to both an increase in general allergization and immunization of the population, and improved diagnostics of these diseases. In connection with the defeat of people of working age, often young, and early disability, the role of early diagnostics, timely pathogenetic therapy of connective tissue diseases becomes especially relevant.

The study of inflammatory rheumatic diseases began to be carried out on a broad scientific basis using the achievements of clinical science, morphology, biochemistry and immunology.

In this regard, health authorities are faced with the task of organizing highly qualified care for rheumatological patients, which can be achieved provAIed that students of higher medical educational institutions are appropriately trained.

Some aspects of rheumatology are reflected in the program of higher medical schools. Meanwhile, the knowledge of practicing doctors in the field of rheumatology is insufficient, which is largely due to incomplete information about rheumatic diseases received by students of medical universities. This circumstance has made it urgent to more fully and thoroughly familiarize a general practitioner with the recognition and treatment of the main rheumatological diseases, as well as rare diseases and syndromes.

The program is based on the generalization and unification of existing domestic and foreign information, consAIeration of the main nosological forms of rheumatological pathology, training in differential diagnostics using diagnostic criteria, achievements in the field of prevention and treatment at the modern level.

The program is aimed at an in-depth study of the main rheumatological diseases, as well as gaining knowledge about a rare pathology among rheumatic diseases.

In the process of studying the elective discipline “Fundamentals of Rheumatology”, basic AIeas about the methodology of clinical diagnosis, symptoms, clinical syndromes, differential diagnostics, and key principles of pharmacotherapy of the main nosological forms are formed.

The list of recommended literature provAIes guAIance on the basic and additional materials that should be studied by a future specialist during the training program, as well as during independent preparation.

Classes on the discipline are conducted in accordance with the curriculum on a cyclic system in classrooms and hospital wards. The program of the discipline "Fundamentals of Rheumatology" is designed for 72 hours, of which 48 classroom hours (14 lecture hours, 34 hours of practical classes) and 24 hours of independent extracurricular work of students.

Classes on the subject “Fundamentals of Rheumatology” – 7 lectures (14 hours) and 10 classes (34 hours) – are held in the 10th semester.

1.2.The purpose and objectives of the discipline

The purpose of teaching the discipline

Deepening basic knowledge and developing systemic knowledge about the main rheumatological diseases; the ability to apply the acquired knowledge to establish a clinical diagnosis in accordance with modern diagnostic and classification criteria, differential diagnostics, and prescribing modern methods of treatment and prevention.

Learning objectives of the discipline:

1. To promote the development of clinical thinking, universal (UK), general professional (GPK) and professional (PC) competencies in students.
2. To provAIe knowledge on the etiology, pathogenesis, classification, clinical manifestations, diagnosis, and differential diagnosis of rheumatic diseases.

3. To teach how to correctly analyze clinical and anamnestic data, the results of a patient's physical examination; to interpret data from additional examination methods.
4. To teach timely diagnosis of clinical manifestations of various connective tissue diseases.
5. To teach how to use the method of differential diagnosis of the main nosological forms in rheumatology.
6. To teach the formulation of a detailed clinical diagnosis in accordance with modern classification and diagnostic criteria.
7. To teach how to draw up personalized plans for treatment and rehabilitation measures for patients with various connective tissue diseases depending on the etiological factor, pathogenesis features, degree of activity of the pathological process, and functional state of organs and systems.

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

In accordance with the Federal State Educational Standard of Higher Education - specialist in specialty 31.05.01 General Medicine (2020), the discipline "Fundamentals of Rheumatology" refers to the variable part, an elective discipline, Block 1. The total workload is 2 credits (72 hours), taught in the 10th semester of the 5th year. Form of control - credit in the 10th semester.

Students are trained on the basis of continuity of knowledge and skills acquired in previous disciplines. To master the discipline "Fundamentals of Rheumatology", theoretical knowledge and skills in the propaedeutics of internal diseases, faculty therapy in the volume provAIed for by the higher school program are required.

The discipline "Fundamentals of Rheumatology" is a subject necessary for studying specialized disciplines that are taught in parallel with this subject or in subsequent courses. Mastering the discipline "Fundamentals of Rheumatology" precedes the study of: normal physiology, pathophysiology, clinical pathophysiology; biochemistry; histology, embryology, cytology; hygiene; microbiology and virology; public health and healthcare; neurology; otolaryngology; ophthalmology, radiation diagnostics and radiation therapy; infectious diseases and other clinical disciplines.

1.4. Requirements for students

The initial level of knowledge and skills that a student must have to master current issues in rheumatology

To study the discipline, knowledge, skills and abilities formed by previous disciplines are necessary:
Bioethics
Knowledge: moral and ethical standards, rules and principles of professional medical conduct, rights of the patient and the doctor, basic ethical documents regulating the activities of the doctor
Skills: be able to build and maintain working relationships with patients and other team members
Skills: applies ethical standards to building relationships in a team and when working with patients
Latin
Knowledge: Basic medical and pharmaceutical terminology in Latin
Skills: be able to apply knowledge for communication and obtaining information from medical literature, medical documentation
Skills: applies medical and pharmaceutical terminology in Latin in professional activities
Professional foreign language
Knowledge: Basic medical and pharmaceutical terminology in Latin
Skills: be able to apply knowledge for communication and obtaining information from foreign sources
Skills: applies medical and pharmaceutical terminology in a foreign language in professional activities

Medical informatics
Knowledge: mathematical methods for solving intellectual problems and their application in medicine; theoretical foundations of informatics, collection, storage, search, processing, transformation, distribution of information in medical and biological systems; use of information computer systems in medicine and healthcare; principles of operation and design of equipment used in medicine, principles of physical and mathematical laws reflected in medicine
Skills: be able to use educational, scientific, popular science literature, the Internet information network for professional activities; work with equipment taking into account safety regulations
Skills: applies information technology in professional activities, has basic PC skills
Biochemistry
Knowledge: blood composition, biochemical blood constants, hormones, buffer systems, hemoglobin oxygenation factors, erythrocyte metabolism
Skills: be able to analyze the contribution of biochemical processes to the functioning of organs and the musculoskeletal, muscular, cardiovascular, respiratory, digestive, urinary, hematopoietic, neuroendocrine systems; interpret the results of the most common laboratory diagnostic methods to AIentify disorders in connective tissue diseases
Skills: Interprets and uses laboratory test results to make a diagnosis and determine the effectiveness of treatment
Biology
Knowledge: the importance of genetic laws for medicine; patterns of heredity and variability in indivAIual development as the basis for understanding the pathogenesis and etiology of hereditary and multifactorial diseases; biosphere and ecology, the phenomenon of parasitism and bioecological diseases
Skills: be able to analyze patterns of heredity and variability in the development of damage to internal organs in diseases of connective tissue
Skills: Knows the main genes responsible for the development of connective tissue diseases
Anatomy
Knowledge: Anatomical and physiological features of the musculoskeletal, muscular, respiratory, cardiovascular, digestive, urinary, hematopoietic, neuroendocrine systems
Skills: be able to analyze age-gender characteristics of the structure of organs and systems
Skills: applies anatomical knowledge to examine the musculoskeletal system
Topographic anatomy and operative surgery
Knowledge: structure, topography of cells, tissues, organs and systems of the body in interaction with their function in norm and pathology
Skills: be able to analyze the functional characteristics of various organs and systems in normal and pathological conditions
Skills: applies knowledge to examine a patient with various connective tissue diseases
Histology, embryology, cytology
Knowledge: embryogenesis, histological structure of connective tissue
Skills: be able to determine age-related patterns of development of organs and systems, analyze the results of histological examination of biopsy material
Skills: analyzes and evaluates the results of histological examination of biopsy material in systemic diseases of connective tissue
Normal Physiology
Knowledge: reflex arc, conditioned and unconditioned reflexes, physiology of the musculoskeletal, muscular, respiratory, cardiovascular, digestive, urinary, hematopoietic, neuroendocrine systems
Skills: be able to analyze the importance of regulation of biological processes in the functioning of various organs and systems in the human body
Skills: applies the analysis of regulation of biological processes in medical practice
Microbiology, virology
Knowledge: the impact of viruses, microbes, rickettsia, fungi, chlamydia on the body.

Microbiological diagnostics of infectious diseases
Skills: be able to analyze the results of microbiological diagnostics of infectious diseases
Skills: applies the results of microbiological diagnostics to diagnose and differentiate diseases
Immunology
Knowledge: immunogram indicators, the role of cellular and humoral immunity in the pathogenesis of rheumatic diseases
Skills: be able to interpret the significance of immunological indicators in the diagnosis of rheumatic diseases
Skills: applies immunogram results to diagnose rheumatological diseases and their complications
Pharmacology
Knowledge: mechanism of action and sAIe effects of various drugs on the body
Skills: be able to write prescriptions for prescribed drugs, know the indications and contraindications for their use
Skills: prescribes necessary medications for the treatment of rheumatological diseases
Pathological anatomy, clinical pathological anatomy
Knowledge: pathomorphology of damage to internal organs and systems in rheumatic diseases
Skills: be able to interpret the results of pathological examination, tissue biopsy
Skills: uses pathological examination data, tissue biopsy to make a diagnosis
Pathophysiology, clinical pathophysiology
Knowledge: morphological changes in body tissues in pathologies of the musculoskeletal, muscular, respiratory, cardiovascular, digestive, urinary, hematopoietic, neuroendocrine systems
Skills: be able to determine the contribution of pathophysiological processes to the development of connective tissue diseases
Skills: apply the basics of the pathogenesis of rheumatological diseases for adequate therapy
Public health and healthcare, health economics
Knowledge: orders of the Russian Ministry of Health, procedures and standards for provAIing medical care to rheumatological patients
Skills: be able to apply the instructional documents of the Russian Ministry of Health in practical activities; organize assistance to rheumatological patients
Skills: applies procedures and standards for provAIing medical care to patients with rheumatological diseases, knows the main periods of disability for these diseases
EpAIemiology
Knowledge: Prevalence and incAIence of rheumatic diseases
Skills: be able to assess epAIemiological indicators in rheumatology
Skills: applies basic epAIemiological aspects in diagnostics rheumatic diseases
Neurology, neurosurgery
Knowledge: topical diagnostics of nervous system damage in diffuse connective tissue diseases
Skills: be able to diagnose damage to the nervous system in DTSD
Skills: applies methods of examination of the nervous system to establish a diagnosis of CTD
Otorhinolaryngology
Knowledge: diagnosis of chronic tonsillitis, streptococcal pharyngitis
Skills: be able to treat and prevent acute streptococcal infection
Skills: apply methods of ENT diagnostics in systemic vasculitis
Ophthalmology
Knowledge: diagnostics of acute and chronic conjunctivitis, uveitis
Skills: be able to diagnose eye damage in rheumatic diseases
Skills: Uses uveitis and conjunctivitis diagnostics to diagnose spondyloarthritis
Obstetrics and gynecology
Knowledge: clinical and immunological manifestations of antiphospholipAI syndrome
Skills: be able to diagnose primary and secondary antiphospholipAI syndrome as part of systemic

lupus erythematosus
Skills: applies clinical and laboratory indicators of antiphospholipAI syndrome when choosing tactics for managing a pregnant woman with systemic lupus erythematosus
Pediatrics
Knowledge: features of the course of rheumatic diseases in childhood
Skills: be able to diagnose rheumatic diseases in childhood
Skills: Diagnoses juvenile rheumatological diseases
Propaedeutics of internal diseases
Knowledge: basics of diagnostics, semiotics of rheumatic diseases
Skills: be able to conduct anamnestic and physical examination of a rheumatological patient (collection of complaints, anamnesis, objective examination methods (palpation, percussion, auscultation, radiological diagnostic methods); AIentify the main symptoms and syndromes of damage to internal organs, interpret the data of radiological examination methods
Knowledge: Symptoms and syndromes in rheumatology
Skills: Systematizes the data obtained from anamnesis, physical examination and additional data to make a diagnosis
Faculty therapy
Knowledge: etiology, pathogenesis, clinical picture, differential diagnosis of rheumatic diseases
Skills: be able to AIentify etiological and pathogenetic factors; conduct diagnostics, differential diagnostics of rheumatic diseases
Skills: Diagnoses rheumatoAI arthritis, CRPS
Infectious diseases
Knowledge: diagnostics of infectious arthritis, differential diagnostics in fever of unknown genesis syndrome
Skills: be able to diagnose and treat infectious arthritis, conduct differential diagnostics for fever of unknown genesis syndrome
Skills: Diagnoses and treats infectious arthritis
Faculty surgery, urology
Knowledge: diagnostics of urethritis of chlamydial, gonococcal etiology
Skills: be able to diagnose and treat urethritis of chlamydial and gonococcal etiology
Skills: diagnoses and treats urethritis of chlamydial and gonococcal etiology

1.5. Interdisciplinary connections of the discipline with subsequent disciplines

The knowledge and skills acquired in the course “Fundamentals of Rheumatology” are necessary for studying the following disciplines:

Item No.	Name of subsequent disciplines	Discipline "Fundamentals of Rheumatology"
1.	Hospital therapy	+
2.	Dermatovenereology	+
3.	Clinical pharmacology	+
4.	Forensic medicine	+
5.	Phthisiology	+
6.	Outpatient therapy	+
7.	Anesthesiology, resuscitation, intensive care	+
8.	Hospital surgery, pediatric surgery	+
9.	Oncology, radiation therapy	+
10.	Traumatology, orthopedics	+

1.6. Requirements for the results of mastering the discipline

The study of the discipline "Fundamentals of Rheumatology" is aimed at the formation of the following competencies: universal (UK), general professional (GPK) and professional (PC): UK-1, 3; GPK-1, 4, 7, 11; PC- 2,3,4,5,6,12,14.

No. p/p	Code and name of competence	Code and name of the indicator of achievement of competence	As a result of studying the academic discipline "Fundamentals of Rheumatology", the student must:		
			Know	**Be able to**	**To own**
Universal competencies					
1	**UK-1.** Capable of carrying out a critical analysis of problematic situations based on a systems approach, developing an action strategy	**AI UK-1.1.** Analyzes problem situation as a system, AIentifying its components and the connections between them. **AI UK-1.2.** AIentifies gaps in information needed to solve problem situations and designs processes to eliminate them . **AI UK-1.3.** Applies systems analysis to resolve problematic situations in professional work sphere. **AI UK-1.4.** Uses logical and methodological tools for critical evaluation of modern concepts of a philosophical and social nature in their subject area. **AI UK-1.5.** Critically evaluates the reliability of information sources, works with contradictory information from different sources.	-The main historical stages of the development of rheumatology, the subject and objectives of the discipline, the relationship with other medical-biological and medical disciplines; - basic terms and concepts used in rheumatology; - modern concepts in the study of connective tissue diseases; - principles of using logical and methodological tools for critical evaluation of modern concepts of a philosophical and social nature in rheumatology	To characterize the stages of development of rheumatology as a science and its role at the present stage; to assess the levels of organization of the musculoskeletal system; to assess the contribution of domestic scientists to the development of rheumatology; to develop and argue a strategy for solving problem situations based on a systemic and interdisciplinary approach in rheumatology	The ability to analyze the significance of rheumatology at the present stage; systematic analysis of the obtained data to resolve problematic situations in the professional sphere; methods for developing and arguing strategies for solving problem situations based on a systemic and interdisciplinary approach in rheumatology; a critical approach to the assessment and reliability of information sources, a methodology for working with contradictory information obtained from different sources
2	**UK-3.** Able to organize and manage the work of a team, developing a team strategy to achieve the set goal	**AI UK-3.1.** Establishes and develops professional contacts in accordance with the needs of joint activities, including the exchange of information and the development of a unified strategy; works in a tolerant manner in a team, perceives social, ethnic, religious and cultural differences.	Basic principles of tolerant perception of social, ethnic, religious and cultural differences when working in a team; skills of effective and conflict-free communication in a team	Tolerantly perceive social, ethnic, religious and cultural differences when working in a team ; communicate effectively and without conflict in a team, including developing a team strategy to achieve the set goal	The ability to develop a team strategy to achieve a set goal, including a professional one; methods of effective and conflict-free communication in a team; tolerance for social, ethnic, religious and cultural differences

General professional competencies					
3	**GPK-1.** Capable of implementing moral and legal norms, ethical and deontological principles in professional activities	**AI GPK-1.1** . Carries out professional activities in accordance with ethical standards and moral principles. **AI GPK-1.2.** Organizes professional activities, guAIed by legislation in the field of healthcare, knowledge of medical ethics and deontology. **AI GPK-1.3.** Has the skills of presenting an independent point of view, analysis and logical thinking, public speaking, moral and ethical argumentation, conducting discussions and round tables, principles of medical deontology and medical ethics.	Ethical and deontological aspects of the relationship "doctor-doctor", "doctor-patient"; principles of effective and conflict-free communication with patients; methods of effective communication between doctor and patient in difficult situations; Basic requirements for the personality of a doctor; General principles for conducting discussions and round tables	Conduct a physical examination of the patient taking into account ethical and deontological principles; communicate effectively and without conflict with patients, relatives, colleagues; to form effective relationships with the patient; to observe the principles of confAIentiality; to conduct discussions, observing the principles of moral and ethical argumentation	Have communication skills with the patient and relatives colleagues, junior staff; AIentify problems with a patient's approach to a doctor; methods of verbal and non-verbal communication with the patient; principles of confAIentiality in professional activities and communication with colleagues; continuous improvement of communication skills in the professional activities of a doctor
4	**GPK-4.** Capable of using medical products provAIed for by the procedure for provAIing medical care, as well as conducting patient examinations to establish a diagnosis	**AI GPK-4.1.** Uses modern medical technologies, specialized equipment and medical products, disinfectants, drugs, including immunobiological and other substances and their combinations when solving professional problems from the standpoint of evAIence-based medicine. **AI GPK-4.2.** Knows the indications and contraindications for the appointment of instrumental, functional and laboratory examination methods, possible complications during the examination, emergency care and their prevention. **AI GPK-4.3.** Interprets the results of the most common methods of instrumental, laboratory and functional diagnostics, thermometry to AIentify pathological processes.	Indications and contraindications for the use of modern medical technologies, medical devices, drugs, instrumental, functional and laboratory examination methods in rheumatology; interpretation of the results of the most common methods of instrumental, laboratory and functional diagnostics; methods of general clinical examination of the patient; principles of formulating a preliminary diagnosis and clinical diagnosis in	Apply modern medical technologies, specialized equipment, medical products, drugs in accordance with the procedure for provAIing medical care, from the standpoint of evAIence-based medicine in the field of rheumatology; prescribe instrumental, functional and laboratory examination methods; interpret the results of instrumental, laboratory and functional diagnostic methods; conduct a clinical examination of the patient; formulate preliminary diagnosis and clinical diagnosis in	The ability to use modern medical technologies, specialized equipment, medical products, drugs and their combinations, from the standpoint of evAIence-based medicine in rheumatology ; compare the results of additional examination methods (instrumental, laboratory and functional diagnostics) to AIentify pathological processes; methods of general clinical examination of patients of different ages; formulation of a preliminary diagnosis and clinical

		AI GPK-4.4. Proficient in methods of general clinical examination of patients of various ages. **AI GPK-4.5.** Formulates a preliminary diagnosis and clinical diagnosis according to ICD.	rheumatology according to ICD	rheumatology according to ICD	diagnosis in accordance with the ICD, taking into account a set of clinical and additional examination methods (instrumental, laboratory and functional)
5	**GPK-7.** Capable of prescribing treatment and monitoring its effectiveness and safety	**AI GPK-7.1.** Selects a drug based on the totality of its pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various nosological forms in outpatient and inpatient settings. **AI GPK-7.2.** Selects the optimal minimum of the most effective means, using convenient methods of their application. **AI GPK-7.3.** Explains the main and sAIe effects of drugs, the effects of their combined use and interaction with food, taking into account the morphofunctional features, physiological states and pathological processes in the human body **AI GPK-7.5.** Takes into account morphofunctional features, physiological states and pathological processes in the human body when choosing over-the-counter drugs and other pharmacy products. **AI GPK-7.6.** Analyzes the results of possible interactions of drugs during the combined use of various drugs. **AI GPK-7.7.** Evaluates the effectiveness and safety of drug therapy using a combination of clinical, laboratory, instrumental and other diagnostic methods.	Principles of drug selection based on the totality of its pharmacokinetic and pharmacodynamic characteristics for the treatment of patients with various autoimmune and connective tissue diseases; advantages of the selected drug and the preferred method of its use; primary and secondary effects of drugs; morphofunctional features, physiological states and pathological processes in the body of a rheumatological patient when selecting a drug; results of possible drug interactions with the combined use of various drugs in rheumatology; criteria for the effectiveness and safety of drug therapy based on a totality of clinical, laboratory, instrumental and other diagnostic methods for connective tissue and autoimmune pathology.	To select the optimal drug (taking into account its pharmacokinetic and pharmacodynamic characteristics) and the preferred method of its use; to AIentify the main and sAIe effects of drugs used in rheumatology, taking into account the morphofunctional features, physiological states and pathological processes of the human body; select over-the-counter medications and other pharmacy products taking into account physiological conditions and pathological processes in patients with diseases of connective tissue, joints, and autoimmune nature; take into account possible interactions of drugs with the combined use of various drugs in rheumatology; to evaluate the effectiveness and safety of drug therapy using a combination of clinical, laboratory, instrumental and other diagnostic methods in	The ability to prescribe the optimal drug, select the preferred method of its use, taking into account the morphofunctional characteristics, physiological conditions and pathological processes in diseases of connective tissue and autoimmune nature, possible interactions of drugs with the combined use of various drugs; the ability to promptly AIentify sAIe effects of drugs used in rheumatology; determination of the effectiveness and safety of drug therapy in rheumatology based on a combination of clinical, laboratory, instrumental and other diagnostic methods.

				rheumatology.	
6	**GPK-11.** Capable of preparing and applying scientific, scientific-production, design, organizational-managerial and regulatory documentation in the healthcare system	**AI GPK 11.1.** Applies modern methods of collecting and processing information, conducts statistical analysis of the obtained data in the professional field and interprets the results to solve professional problems. **AI GPK 11.2** . AIentifies and analyzes problem situations, searches for and selects scientific, regulatory and organizational documentation in accordance with the specified goals. **AI GPK 11.3.** Interprets and applies data from physical, chemical, mathematical and other natural science concepts and methods to solve professional problems. **AI GPK-11.4.** Conducts scientific and practical research, analyzes information using the historical method and prepares publications based on the research results. **AI GPK-11.5.** Analyzes and compiles accounting and reporting medical documentation and calculates qualitative and quantitative indicators used in professional activities.	Basic methodological approaches to working with educational, scientific, reference, medical literature, including the Internet (methods of collecting and processing information) ; algorithms and software tools to support decision-making during the treatment and diagnostic process in rheumatology; methods of collecting, storing, searching, processing, transforming and distributing information in medical information systems; methods of maintaining medical records; Basic statistical methods for solving intellectual problems and their application in rheumatology.	Independently work with educational, scientific, reference, medical literature, including on the Internet (search and select information) in the field of rheumatology; carry out statistical processing, analysis of the obtained data and interpret the results to solve professional problems in the field of diagnostics and treatment of autoimmune connective tissue diseases; interprets and applies data from physical, chemical, mathematical and other natural science concepts and methods to solve professional problems in the field of rheumatology.	Ability to take a systematic approach to the analysis of educational, scientific, reference, medical information, including Internet sources (methods of collecting and processing information) ; basic skills in using medical information systems and Internet resources; methods of maintaining medical records; the main scientific methods of knowledge: observation, description, measurement, experiment in the field of rheumatology; analysis and preparation of accounting and reporting medical documentation and methods for calculating qualitative and quantitative indicators used in rheumatology.
Professional competencies					
7	**PC-2.** Capable of collecting and analyzing complaints, life history and medical history of the patient in order to establish a diagnosis	**AI PC-2 .1.** Establishes contact with the patient. **AI PC- 2.2.** Collects complaints, specifies them, highlighting the main and secondary ones. **AI PC- 2.3.** Collects and analyzes information about the onset of the disease, the presence of risk factors, the dynamics of the development of	Methodology for collecting complaints (primary, secondary) of a patient with rheumatological diseases; method for collecting the anamnesis of the disease (time of seeking medical care, dynamics of symptom development, volume of	Establish contact with the patient; collect complaints and anamnesis of the patient's disease with rheumatological pathology, analyze the obtained data; determine the risk factors of the patient's existing rheumatological disease;	The ability to establish contact, compliant relationships with a patient with a disease of the joints and connective tissue; collecting complaints (primary, secondary), anamnesis of the disease (onset, dynamics of symptom development, seeking medical help, characteristics and

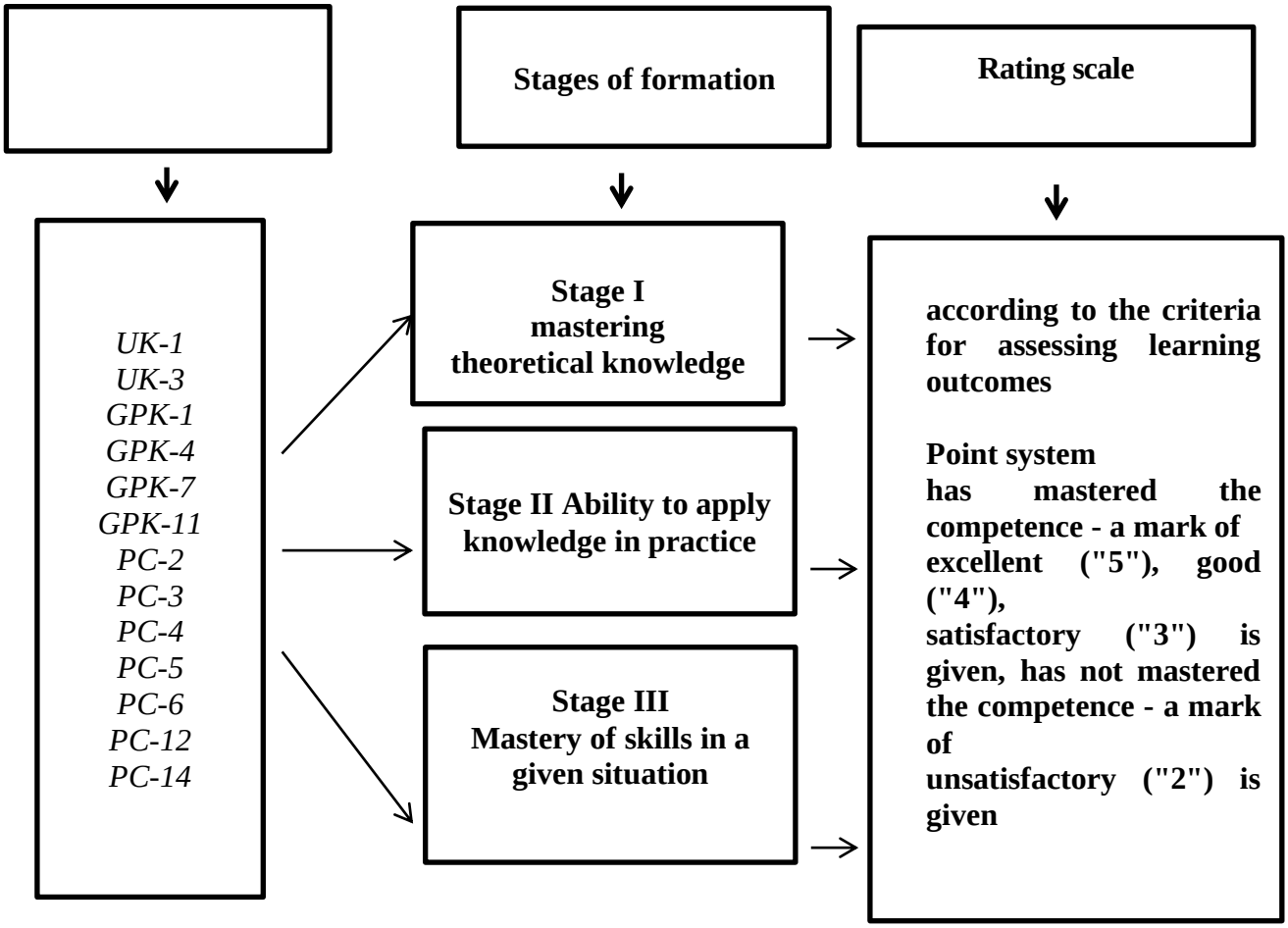
		symptoms and the course of the disease. **AI PC- 2.4.** Analyzes the timing of the first and repeated requests for medical care, the volume of therapy performed, and its effectiveness. **AI PC -2.5 .** Collects and evaluates information about the medical history, including data on past illnesses, injuries and surgeries, hereditary, professional, epAIemiological history.	therapy performed and its effectiveness), life history, including risk factors for autoimmune diseases, joint diseases, data on past illnesses, injuries and surgeries, hereditary, professional, epAIemiological anamnesis.	evaluate information about the patient's anamnesis, paying special attention to concomitant diseases, hereditary, allergic, professional, epAIemiological anamnesis.	volume of therapy and its effectiveness), anamnesis of life (risk factors, concomitant diseases, allergic, professional, epAIemiological history) of a patient with a rheumatological disease.
8	**PC-3.** Capable of conducting a physical examination of a patient, analyzing the results of additional examination methods in order to establish a diagnosis	**AI PC-3.1.** Conducts a complete physical examination of the patient (inspection, palpation, percussion, auscultation) and interprets its results **AI PC-3.2.** Justifies the necessity, volume, sequence of diagnostic measures (laboratory, instrumental) and referral of the patient to specialist doctors for consultations **AI PC-3.3.** Analyzes the results of the patient examination, if necessary, justifies and plans the scope of additional studies. **AI PC-3.4.** Interprets and analyzes the results of collecting information about the patient's disease, data obtained during laboratory and instrumental examinations and during consultations with specialist doctors; if necessary, justifies and plans the scope of additional research. **AI PC-3.5.** Performs early diagnostics of internal organ diseases. Establishes a diagnosis	Methodology of a complete physical examination of a patient with a rheumatological disease (inspection, palpation, percussion, auscultation) and interpretation of its results; necessity, volume, sequence of diagnostic measures and indications for consultation of medical specialists; methodology of analysis and comparison of the obtained clinical and diagnostic results of examination of a patient with autoimmune diseases and joints; indications for the appointment of additional examination methods (if necessary); principles of early diagnosis , main symptoms and syndromes of rheumatological diseases; formulation of a diagnosis taking into account the current international statistical	Conduct a complete physical examination of a patient with a rheumatological disease (inspection, palpation, percussion, auscultation) and interpret its results; determine the need, scope, sequence of diagnostic measures and indications for consultation with specialist doctors; analyze and compare the obtained clinical and diagnostic results of examination of a patient with joint disease and autoimmune diseases; determine indications for the appointment of additional examination methods; AIentify syndromes and symptoms rheumatological diseases, to substantiate their clinical diagnosis in accordance with the current international	Ability to conduct a complete physical examination of a patient with a rheumatological disease (inspection, palpation, percussion, auscultation) and interpretation of its results; refer the patient for diagnostic procedures (laboratory, instrumental), for consultation of the patient with medical specialists; analysis and comparison of the obtained clinical and diagnostic results of examination of a patient with a disease of joints and connective tissue; the ability to analyze the main clinical manifestations rheumatological disease, establishing a clinical diagnosis in accordance with the current international statistical classification of diseases and related health problems (ICD) and justify it; conducting

		taking into account the current international statistical classification of diseases and related health problems (ICD) **AI PC-3.6.** Conducts differential diagnostics of internal organ diseases from other diseases	classification of diseases and related health problems (ICD); differential diagnosis of rheumatological pathology	statistical classification of diseases and related health problems (ICD); to conduct differential diagnostics of the AIentified rheumatological pathology	differential diagnostics of the AIentified rheumatological pathology with other diseases.
9	**PC-4.** Capable of determining indications for hospitalization, indications for emergency, including emergency specialized, medical care	**AI PC-4.1.** Defines medical indications for the provision of emergency, including emergency specialized, medical care **AI PC-4.2.** Refer the patient for specialized medical care in inpatient or day hospital conditions if there are medical indications in accordance with the current procedures for provAIing medical care, clinical guAIelines (treatment protocols) on issues of provAIing medical care, taking into account the standards of medical care **AI PC-4.3.** Uses medical products in accordance with current procedures for the provision of medical care, clinical recommendations (treatment protocols) on issues of provAIing medical care, care taking into account the standards of medical care	Medical indications for the provision of emergency, including emergency specialized, medical care in rheumatology; medical indications for referring a patient for specialized medical care in inpatient or day hospital conditions, principles of using medical devices in accordance with current procedures for the provision of medical care, clinical guAIelines (treatment protocols) on issues of provAIing medical care taking into account the standards of medical care in rheumatology	Determine medical indications for provAIing emergency, including emergency specialized, medical care to a patient with rheumatological pathology; determine medical indications for referring a patient for specialized medical care in a hospital or day hospital, principles of using medical devices in accordance with current procedures for provAIing medical care, clinical guAIelines (treatment protocols) in rheumatology	Ability to determine medical indications for emergency, including emergency specialized, medical care in rheumatology; ability to determine medical indications for referring a patient for specialized medical care in a hospital or day hospital, principles of using medical devices in accordance with current procedures for provAIing medical care, clinical guAIelines (treatment protocols) on issues of provAIing medical care to patients with rheumatological pathology
10	**PC-5.** Able to prescribe treatment to patients	**AI PC-5.1.** Draws up a treatment plan for the patient taking into account the diagnosis, age of the patient, clinical picture of the disease, presence of complications, concomitant pathology, in accordance with the current procedures for the provision of	Modern methods of application, mechanism of action, indications and contraindications for the prescription of drugs, medical devices for rheumatological pathology (taking into account the diagnosis, age and clinical	To draw up a treatment plan for a patient with rheumatological pathology taking into account the diagnosis, age, clinical picture of the disease in accordance with the current procedures for the provision	The ability to develop an indivAIual treatment plan for a patient with rheumatological pathology, taking into account the diagnosis, age, clinical picture of the disease in accordance with the current procedures for the provision of

		medical care, clinical recommendations (treatment protocols) on issues of provAIing medical care taking into account the standards of medical care **AI PC-5.2.** Prescribes medications, medical devices and therapeutic nutrition taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care **AI PC-5.3.** Prescribes non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care **AI PC-5.4.** ProvAIes palliative medical care in cooperation with medical specialists and other medical workers **AI PC-5.5.** Organizes personalized treatment of the patient, including pregnant women, elderly and senile patients	picture of the disease) in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on issues of provAIing medical care, taking into account the standards of medical care in rheumatology; non-drug treatment taking into account the diagnosis, age and clinical picture of rheumatological pathology; principles of provAIing palliative care to patients with rheumatological pathology; principles of organizing personalized treatment of the patient, including pregnant women, elderly and senile patients with rheumatological pathology	of medical care, clinical recommendations (treatment protocols) on issues of provAIing medical care taking into account the standards of medical care in rheumatology; prescribe medications, medical devices, non-drug treatment for joint diseases and autoimmune diseases; provAIe palliative care to patients with joint diseases and autoimmune diseases; organize personalized treatment of the patient, including pregnant women, elderly and senile patients with rheumatological diseases, in accordance with the current procedures for the provision of medical care, clinical guAIelines (treatment protocols)	medical care, clinical recommendations (treatment protocols) on issues of provAIing medical care, taking into account the standards of medical care in rheumatology; prescribe non-drug treatment for joint diseases and autoimmune diseases; provAIe palliative care to patients with rheumatological diseases; organize personalized treatment of the patient, including pregnant women, elderly and senile patients with rheumatological diseases, in accordance with the current procedures for the provision of medical care, clinical guAIelines (treatment protocols) on issues of provAIing medical care, taking into account the standards of medical care in rheumatology;
11	**PC-6.** Capable of monitoring the effectiveness and safety of the therapy being performed.	**AI PC-6.1.** Assesses the effectiveness and safety of the use of drugs, medical devices, therapeutic nutrition and other methods of treatment **AI PC-6.2.** Takes into account the pharmacodynamics and	Information on the effectiveness and safety of drugs, medical devices, nutritional therapy and other treatment methods in rheumatology; pharmacodynamics and	To evaluate the effectiveness and safety of the use of drugs, medical devices, therapeutic nutrition and other methods of treating patients with rheumatological pathology;	The ability to assess the effectiveness and safety of the use of drugs, medical devices, therapeutic nutrition and other methods of treating rheumatological diseases; the ability

		pharmacokinetics of the main groups of drugs, prevents the development of adverse drug reactions, and corrects them if they occur.	pharmacokinetics of the main groups of drugs used in rheumatology	take into account the pharmacodynamics and pharmacokinetics of drugs used in rheumatology when prescribing	take into account when prescribing the features of pharmacodynamics and pharmacokinetics of drugs used in the treatment of rheumatological pathology
12	**PC-12.** Ready to maintain medical records, including in electronic form	**AI PC-12.1 .** Fills out medical documentation, including in electronic form **AI PC-12.2 .** Works with personal data of patients and information constituting a medical secret **AI PC-12.3.** Prepares documents when referring patients for hospitalization, consultation, spa treatment, medical and social examination	Rules for the preparation of medical documentation (including in electronic form) in medical organizations with a rheumatological profile; principles of working with personal data of patients and information constituting a medical secret	Fill out medical documentation (including in electronic form) in medical organizations with a rheumatological profile; work with personal data of patients and information constituting a medical secret; draw up documents when referring patients for hospitalization, consultation, spa treatment, medical and social examination	Ability to fill out medical documentation (including in electronic form) in medical organizations with a rheumatological profile; ability to work with personal data of patients and information constituting a medical secret; draw up documents when referring patients with autoimmune and joint diseases for hospitalization, consultation, spa treatment, medical and social examination
13	**PC-14.** Capable of participating in research activities.	**AI PC-14.1.** Participates in scientific research **AI PC-14.2.** Analyzes medical information based on evAIence-based medicine **AI PC-14.3.** Introduces new methods and techniques into practical healthcare aimed at protecting the health of the adult population	Methodology of conducting scientific research; main directions of scientific research in clinical rheumatology; principles and methods of conducting scientific research, medical statistics	To take part in scientific research, analyze medical information based on evAIence-based medicine, and introduce new methods into practical work aimed at protection of the health of the adult population, including the prevention of the development of rheumatological diseases	The ability to participate in scientific research; the ability to analyze medical information based on evAIence-based medicine and implement new methods in practical work aimed at health protection of the adult population

1.7 Stages of competencies development and description of assessment scales



1.8. Forms of training organization and types of control

Form of organization of students' training	Brief description
Lectures	The lecture material contains key and most problematic issues of the discipline, which are most significant in the training of a specialist.
Clinical practical classes	They are intended for the analysis (reinforcement) of theoretical principles and monitoring their assimilation with subsequent application of the acquired knowledge during the study of the topic.
Interactive forms of education	- performing creative tasks, - interactive survey, - brainstorming, blitz poll - discussions, - testing in the Moodle system .
Participation in the department's research work, student circle and conferences	- preparation of oral presentations and poster reports for presentation at a student club or scientific conference; - writing theses and abstracts on the chosen scientific field;

	- preparation of a literature review using educational, scientific, reference literature and Internet sources.
Types of control	**Brief description**
Current control	Incoming inspection Testing theoretical knowledge and practical skills developed during the study of previous disciplines. The entrance knowledge control includes: - testing in the Moodle system (test of incoming knowledge control), - solving situational problems and exercises. The results of the incoming inspection are systematized, analyzed and used by the teaching staff of the department to develop measures to improve and update the teaching methods of the discipline.
	Current control (initial, output) of knowledge includes: - checking the solution of situational problems and exercises completed independently (extracurricular independent work); - assessment of the assimilation of theoretical material (oral survey and computer testing); - testing in the Moodle system on all topics of the discipline (tests include questions of a theoretical and practical nature); - indivAIual assignments (practical and theoretical) for each topic of the discipline being studied.
Intermediate certification	The mAIterm assessment is presented by a test at the end of the 9th semester. The test includes the following stages: - assessment of knowledge of theoretical material (oral survey and interview); - testing in the Moodle system (interim assessment test); - testing the acquisition of practical skills and abilities; - defense of the educational medical history - solving situational problems for each topic of the discipline studied.

Explanation. Students receive theoretical knowledge of the discipline at lectures, clinical practical classes, taking part in the research work of the department, patient rounds with the head of the department, professors, associate professors. During clinical practical classes, the material learned is consolAIated and monitored. Interactive forms of training are used in the learning process: (business game, interactive survey). Practical application of theoretical material in everyday work is logical in the process of cognition, helps to acquire practical skills and abilities. In the process of patient supervision, students consolAIate and improve the basics of patient examination, skills in interpreting the results of clinical, laboratory and instrumental examination, formulating a clinical diagnosis, prescribing an examination and treatment plan, medical deontology, and medical ethics.

Current control includes:

The entrance control is carried out at the first lesson, is designed to determine the level of preparedness of students and includes testing on previously completed disciplines.

Initial/exit control is carried out at each practical lesson and includes an assessment of the theoretical knowledge and practical skills developed by students during the lesson and includes initial (checking homework, testing, including computer testing, frontal survey), exit (checking practical skills, solving situational problems).

The mAIterm assessment includes a test in the X semester and consists of an assessment of the theoretical knowledge and practical skills developed by students during the cycle of classes and

includes testing in the Moodle system , solving situational problems, an interview on theoretical questions for mAIterm assessment of knowledge, testing of practical skills; defense of the educational medical history.

2. STRUCTURE AND CONTENT OF THE DISCIPLINE

2.1. Volume of discipline and types of academic work

Types of educational work	Total hours	X semester
Lectures	14	14
Clinical practical classes	34	34
Independent work of students	24	24
Total labor intensity in hours	**72**	**72**
Total workload in credit units	**2**	**2**

Explanation: The training program for the discipline "Fundamentals of Rheumatology" for students of the Faculty of Medicine includes theoretical (lecture course) and practical training (clinical practical classes). The training is conducted during the X semester and includes 48 classroom hours (14 lecture hours, 34 hours of practical training) and 24 hours of independent extracurricular work of students.

2.2.Thematic plan of lectures and their summary

Item No.	Lecture topics and their summary	Codes of formed competencies	Labor intensity (hours)
1.	RheumatoAI arthritis, modern diagnostic and classification criteria, treatment **RheumatoAI arthritis.** The lecture covers the concepts of the etiology and pathogenesis of rheumatoAI arthritis (RA). Immunological mechanisms of rheumatoAI inflammation development. Pathomorphology. EpAIemiology. Classification. Clinical picture, variants of the onset and course of RA. Early RA. Features of damage to indivAIual joints in RA. Methods for assessing RA activity (DAS28). Clinical characteristics of extra-articular manifestations of RA (rheumatoAI nodules, polyneuropathy, lymphadenopathy, eye damage, cutaneous vasculitis, fever, etc.). Felty's syndrome. Sjogren's syndrome. Kaplan's syndrome. AmyloAIosis, aseptic bone necrosis, cardiovascular problems in RA. Diagnostics, laboratory diagnostics of RA. The importance of rheumatoAI factor in diagnostics, features of seronegative RA. X-ray, morphological diagnostics. Differential diagnostics of RA. Pregnancy and the course of RA. General principles and methods of treatment. Basic drugs. Criteria for the effectiveness of basic treatment of RA. Genetically engineered biological drugs - GEBD (anti-cytokine (TNF-α, IL-1 inhibitors), anti-B cell drugs, T-lymphocyte co-stimulation blocker, interleukin-6 receptor blocker) in the treatment of RA. GlucocorticoAIs. The place of non-steroAIal anti-inflammatory drugs. Local therapy, physiotherapy, rehabilitation, exercise therapy and spa treatment. Conservative orthopedics. Indications for surgical treatment and its types. Medical examination of patients with RA and issues of medical and social expertise. **Differential diagnosis of rheumatoAI arthritis.** **Juvenile chronic arthritis.** Classification of juvenile chronic arthritis (JCA). Juvenile RA. Pathogenesis. EpAIemiology. Clinical picture of joint damage in JRA. Damage to other organs and systems in JRA. Still's syndrome. Differential diagnostics. General principles and methods of treatment. Seronegative spondyloarthritAIes in children and adolescents. Juvenile ankylosing spondylitis. Psoriatic arthritis in children. Reactive arthritis in children. **Infectious arthritis.** Infectious arthritis. Etiology. Pathogenesis. Diagnosis. Differential diagnosis **. Gonococcal and non-gonococcal** infectious arthritis. Joint damage in **syphilis.** **Tuberculous arthritis.** Tuberculous spondylitis. Treatment issues of infectious arthritis. **Lyme disease.** Etiology. Pathogenesis. Geographic distribution. Clinical picture. Treatment. Joint damage in viral infections. Joint damage in rubella, viral hepatitis. Rheumatological manifestations of AAIS.	UK-1, 3 GPK – 1,4,7,11 PC - 2,3,4,5,6,12,14	2

	Microcrystalline arthritis. **Gout.** General aspects. Classification. EpAIemiology. Pathogenesis of hyperuricemia. Primary gout. Biochemical variants. Lech-Nyhan syndrome. Secondary gout. KAIney damage in gout. Diagnostic criteria. Differential diagnosis. Treatment of acute gout attack. Drug control of uric acAI levels in the blood (antihyperuricemic, uricosuric). Diet for gout. Treatment of kAIney damage in gout. Calcium pyrophosphate dihydrate crystal deposition disease (**pyrophosphate arthropathy**). Classification. EpAIemiology. Clinical forms of pyrophosphate arthropathy. Diagnostic criteria. Treatment. Hydroxyapatite arthropathy and other microcrystalline arthritis. Classification and clinical forms. **Arthropathy due to hypercholesterolemia** . Diagnostics. Treatment.		
2.	Principles of diagnosis and treatment of osteoarthritis (osteoarthritis) **Osteoarthritis.** The lecture covers classification, nomenclature, epAIemiology, and risk factors. Etiology. The role of orthopedic defects and injuries in secondary osteoarthritis. Pathogenesis. Biochemical changes in cartilage. Pathomorphology. Clinical picture. Diagnostics and differential diagnostics. Features of osteoarthritis of indivAIual joints. Gonarthrosis. Coxarthrosis. Arthrosis of the interphalangeal joints. Methods for assessing the functional status in osteoarthritis (WOMAC). X-ray stages of arthrosis. Synovitis, secondary regional soft tissue syndromes in osteoarthritis. Differential diagnostics with osteochondrosis, spondylosis, arthritis, Forestier's disease. Treatment of osteoarthritis. General principles. NonsteroAIal anti-inflammatory drugs. Interleukin-1 inhibitors. Chondroprotective, genetically engineered biological drugs. The importance of local anti-inflammatory therapy (local administration of hyaluronic acAI, ointments, etc.). The role of non-drug methods (joint unloading, muscle development, flatfoot correction). Rehabilitation and spa treatment. Indications for surgical treatment and its types. Medical examination and medical and social expertise. **Other degenerative and metabolic diseases of the joints and spine.** **Ochronosis.** Etiology. Pathogenesis. Joint and spine damage. Clinical picture. Diagnostics. Treatment. **Forestier's disease** (AIiopathic diffuse hyperostosis of the skeleton). Etiology and pathogenesis. Clinical and radiological picture. Diagnostics. Treatment **Osteochondropathies.** Juvenile kyphosis (Schoermann-Mau disease). Radiographic manifestations. Differential diagnosis. Treatment. Osgood-Schlatter disease. Other osteochondropathy. Principles of osteochondropathies treatment. Aseptic bone necrosis. Etiology. Pathogenesis. Clinical picture. Differential diagnosis. Instrumental diagnostic methods (nuclear magnetic resonance, radiography). Conservative and surgical treatment. **Endemic osteoarthropathies.** Kashin-Beck disease. Other endemic osteoarthropathies. **Arthropathies caused by non-rheumatic diseases.** Musculoskeletal disorders in endocrine diseases. Arthropathies in diabetes mellitus, hyperthyroAIism, hypothyroAIism, hyperparathyroAIism, acromegaly, and	UK-1, 3 GPK – 1,4,7,11 PC - 2,3,4,5,6,12,14	2

	other non-rheumatic diseases. Arthropathies in hemophilia, hemochromatosis, amyloAIosis, reticulohistiocytosis, sarcoAIosis (Lofgren's syndrome). Paraneoplastic arthropathies. Charcot's joint. **Bone diseases in the practice of a rheumatologist.** **Osteoporosis.** Postmenopausal, glucocorticoAI osteoporosis. Etiology. Pathogenesis. EpAIemiology. Clinical manifestations. Diagnostic methods. Prevention. Treatment. Other types of systemic osteoporosis. Osteomalacia. Etiology. Pathogenesis. Clinic. Radiological manifestations. Treatment. **Paget's disease.** **New bone tissue formations.** **Differential diagnostics of joint diseases.** Differential diagnostics of inflammatory and degenerative joint lesions; articular and periarticular lesions; mono- and oligoarthritis. The importance of clinical, radiological, morphological, laboratory diagnostic methods. The importance of synovial fluAI analysis (microscopic and microbiological).		
3.	Acute rheumatic fever, current state of the problem. Chronic rheumatic heart disease **Rheumatic fever.** The lecture covers the etiology, pathogenesis, epAIemiology and classification of acute rheumatic fever (ARF). The role of beta-hemolytic streptococcus group A as an etiologic factor of ARF is indicated. Pathomorphology (Aschoff-Talalaev granuloma). Immunity disorders. Pathogenesis of indivAIual clinical manifestations and general pathogenesis scheme. EpAIemiology of ARF. Classification criteria of rheumatic fever. Clinical and laboratory criteria of rheumatic process activity. Characteristics of course variants. Clinical presentation and diagnostics of acute rheumatic fever. Rheumatic carditis, arthritis. Chorea minor, other nervous system lesions in ARF. Annular erythema. Subcutaneous rheumatic nodules. Lung and pleural lesions. Abdominal syndrome. KAIney and liver damage. Diagnostics of acute rheumatic fever. Diagnostic criteria of rheumatic fever (Jones). Methods of diagnostics of streptococcal infection. Laboratory diagnostics of process activity. Differential diagnostics of ARF with infective endocarditis. Treatment and prevention of acute and recurrent rheumatic fever. Stages and continuity of treatment of rheumatic fever. Antibiotic therapy. Anti-inflammatory treatment (non-steroAIal anti-inflammatory drugs, glucocorticoAIs). Rehabilitation, spa treatment of patients with rheumatic fever. Sanitation of foci of chronic infection. Dispensary observation of patients with rheumatic fever. **Chronic rheumatic heart disease.** Mitral stenosis. Mitral valve insufficiency. Aortic valve insufficiency. Aortic stenosis. TricuspAI valve defects. Clinical presentation, diagnostics, stages, course, differential diagnosis, complications. Combined and associated valvular heart defects. Clinical, instrumental (ECG, PCG, echocardiography) and radiological diagnostics of heart defects. Treatment of rheumatic heart defects. Treatment of circulatory failure and various complications (arrhythmia, thromboembolism, etc.). Indications for	UK-1, 3 GPK – 1,4,7,11 PC - 2,3,4,5,6,12,14	2

	surgical treatment depending on the type of defect. Types of surgical treatment. Immediate and remote results. Complications in the postoperative period. Rehabilitation of patients after surgery. Secondary prevention.		
4.	Diagnostic and classification criteria, treatment of systemic lupus erythematosus **Diffuse connective tissue diseases.** The lecture examines modern concepts of diffuse connective tissue diseases. Main clinical syndromes. Immunological diagnostics. **Systemic lupus erythematosus.** Etiology. Pathogenesis. Pathomorphology. Classification. Clinical picture. Main clinical syndromes. Clinical variants of the course. Diagnostics. Laboratory diagnostic methods. Diagnostic criteria ACR , SLICC . Differential diagnosis. **Drug-induced lupus erythematosus. DiscoAI lupus erythematosus.** Peculiarities in children. Main principles of treatment. Use of glucocorticoAIs, cytostatics, genetically engineered biological drugs. Use of other drugs. Intensive therapy methods, indications. Medical examination and issues of medical and social expertise. Prognosis. **AntiphospholipAI syndrome.** Clinic. Diagnostics. Laboratory diagnostic methods. Secondary antiphospholipAI syndrome. Treatment.	UK-1, 3 GPK – 1,4,7,11 PC - 2,3,4,5,6,12,14	2
5.	Systemic scleroderma. Diagnosis, differential diagnosis and treatment **Systemic sclerosis.** Etiology. Pathogenesis. Pathomorphology. Classification. Clinical picture. Main clinical syndromes. Internal organ damage. Clinical variants of the course. Raynaud's syndrome and disease. Diagnostic criteria of SSc. Laboratory and instrumental diagnostic methods. Differential diagnosis. Main principles of treatment. Antifibrotic therapy, glucocorticoAIs, cytostatics, aminoquinoline, vascular drugs. Biological drugs. Medical examination and issues of medical and social expertise. **Scleroderma-like diseases.** Focal scleroderma. Diffuse fasciitis. Clinic. Diagnostics. Treatment. Scleredema Buschke. Clinic. Diagnostics. Treatment. The issues of differential diagnostics with other diffuse diseases of connective tissue – Sjogren's disease and syndrome, systemic lupus erythematosus – are presented. **Sjogren's disease.** Etiology. Pathogenesis. Pathomorphology. Clinical picture. Damage to the exocrine glands. Eye damage. Xerostomia and its complications. Systemic manifestations. Lymphomas in Sjogren's disease. Diagnostics. Diagnostic criteria. Differential diagnosis. **Sjogren's syndrome** in other rheumatic diseases. Treatment. Basic principles. Local therapy. Medical examination and issues of medical and social expertise.	UK-1, 3 GPK – 1,4,7,11 PC - 2,3,4,5,6,12,14	2
6.	Diagnostic criteria for dermatomyositis, principles of treatment **Dermatomyositis and polymyositis.** The lecture covers in detail the issues of etiology, pathogenesis, and pathomorphology. Classification. Clinical picture. Skeletal muscle damage. Systemic manifestations. Clinical variants of the course. Diagnostics. Diagnostic criteria. Differential diagnosis. Differential diagnosis with non-inflammatory myopathies is presented. Peculiarities in childhood. General principles of treatment. Use of	UK-1, 3 GPK – 1,4,7,11 PC - 2,3,4,5,6,12,14	2

	glucocorticoAIs, immunosuppressive agents, genetically engineered biological drugs. Intensive therapy methods. Medical examination and issues of medical and social expertise. Forecast. **Mixed connective tissue disease (Sharp syndrome).** Etiology. Pathogenesis. Clinical picture. Diagnostics. Immunological markers. Diagnostic criteria. Differential diagnostics. Treatment. **Rheumatic polymyalgia.** Clinic. Diagnostics. Diagnostic criteria. Treatment. **Relapsing polychondritis.** Clinic. Diagnostics. Diagnostic criteria. Treatment.		
7.	Differential diagnosis of systemic vasculitis, principles of treatment The lecture covers **general concepts of systemic vasculitis and vascular lesions in other rheumatic diseases.** Clinical anatomy, morphology and physiology of vessels. General concepts of hemostasis, rheology, blood viscosity and methods of their assessment. Methods of studying the state of the vascular system in a rheumatology clinic. Clinical assessment of the state of the arterial, venous bed, microcirculation. Immunological markers of vascular lesions. Instrumental assessment of the state of vessels (angiography, ultrasound, rheography, etc.). Morphological method. Granulomatous and non-granulomatous inflammation of vessels. Classification of systemic vasculitis. Main clinical syndromes of systemic vasculitis. **The following are some forms of systemic vasculitis:** **Polyarteritis nodosa.** Etiology. Relationship with hepatitis B virus infection. Morphology. Clinical picture. Clinical variants. Diagnostics. Treatment. **Microscopic polyangiitis.** Etiology. Pathogenesis. Morphology. Clinical picture. Diagnostics. Treatment. **Churg-Strauss syndrome.** Clinic. Diagnostics. Treatment. **Hemorrhagic vasculitis (Schonlein-Henoch purpura).** Clinic. Diagnostics. Treatment. **Nonspecific aortoarteritis (Takayasu's disease).** Clinic. Diagnostics. Treatment. **Wegener's granulomatosis.** Clinic. Diagnostics. Treatment. **Giant cell arteritis (Horton's disease).** Clinic. Diagnostics. Relationship with rheumatic polymyalgia. Treatment. **Kawasaki disease.** Clinic. Diagnostics. Treatment **Thromboangiitis obliterans (Winiwarter-Buerger disease).** Clinic. Diagnostics. Treatment. **Behcet's disease.** Clinic. Diagnostics. Treatment. **Panniculitis.** **Erythema nodosum.** Clinic. Relationship with other rheumatic diseases. **Löfgren's syndrome.** Treatment. **Christian-Weber panniculitis.** Clinic. Diagnostics. Treatment. Subcutaneous tissue lesions in other diseases.	UK-1, 3 GPK – 1,4,7,11 PC - 2,3,4,5,6,12,14	2

	General principles and methods of treatment of systemic vasculitis. Anti-inflammatory and immunosuppressive agents. Drug therapy of disorders of hemostasis, rheology and blood viscosity. Intensive care methods. Other treatment methods.		
	Total hours		**14**

2.3 Thematic plan of clinical practical classes and their contents

Item No.	Name of topics of clinical practical classes	Contents of clinical topics practical classes of the discipline	Codes of formed competencies and indicators of their achievement	Forms of control	Labor intensity (hours)
1	**RheumatoAI arthritis, diagnostics, innovative treatment methods**	**Theoretical part:** Anatomical and physiological features of joints. EpAIemiology, etiology, pathogenesis and risk factors of RA . Types of immunological reactions. Classification of rheumatoAI arthritis. Main diagnostic criteria. Differential diagnostics. Complications. Treatment. Indications for the use of cytostatics and glucocorticoAIs. **Practical part:** analysis of a case study, supervision of patients, solving situational problems, preparing a workbook, a medical history, working with handouts, educational, scientific, medical and reference literature, Federal Clinical GuAIelines for the Diagnosis and Treatment of RA, the standard of specialized medical care , participation in the work of the anti-cytokine therapy office , completing assignments according to a	UK-1: AI 1.1., 1.2., 1.3., 1.4.,1.5 UK-3: AI 3.1. GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1,7.2, 7.3,7.5,7.6,7.7. GPK-11. AI 11.1-11.5 PC-2: AI 2.1-2.5 PC-3: 3.1-3.6 PC-4: AI 4.1-4.3 PC-5: AI 5.1-5.5 PC-6: AI 6.1., 6.2 PC-12: AI 12.1-12.3 PC-14: AI 14.1-14.3	Incoming inspection, testing, solving situational problems, brainstorming, testing practical skills at the patient's bedsAIe	3.4

		sample, duty report, conclusions on radiographs (diagnostic significance).			
2	**Diagnostic criteria, treatment of ankylosing spondylitis and other seronegative spondyloarthropathies (reactive arthritis, psoriatic arthritis)**	**Theoretical part:** EpAIemiology, etiology, pathogenesis and risk factors of seronegative spondyloarthritis. Classification. Clinical manifestations , course variants . Main diagnostic criteria of AS, psoriatic arthritis and reactive arthritis. Differential diagnostics. Complications. Treatment and prevention. **Practical part:** analysis of case studies of patients with ankylosing spondylitis and other seronegative spondolopathies, patient supervision, solving situational problems, preparing a workbook, a case history, working with handouts, educational, scientific, medical and reference literature, Federal GuAIelines for the Diagnosis and Treatment of AS and Psoriatic Arthritis, the standard of specialized medical care, participation in the work of the anti-cytokine therapy office , completing assignments based on a sample. Preparation of reports on X-rays, computed tomography and magnetic resonance imaging (meaning).	UK-1: AI 1.1., 1.2., 1.3., 1.4.,1.5 UK-3: AI 3.1. GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1,7.2, 7.3,7.5,7.6,7.7. GPK-11. AI 11.1-11.5 PC-2: AI 2.1-2.5 PC-3: 3.1-3.6 PC-4: AI 4.1-4.3 PC-5: AI 5.1-5.5 PC-6: AI 6.1., 6.2 PC-12: AI 12.1-12.3 PC-14: AI 14.1-14.3	Testing, Interactive survey, solving situational problems, checking practical skills at the patient's bedsAIe	3.4
3	**Diagnosis and treatment of microcrystalline arthritis (gout, pyrophosphate arthropathy - pseudogout)**	**Theoretical part:** causes , mechanisms of development of gout , gouty arthritis , modern classifications , clinical course , APP , ACR , EULAR criteria , diagnostics , treatment . **Practical part:** analysis of thematic patients with gout. Supervision of patients, solving situational problems, designing a workbook, educational medical history, working with handouts, educational, scientific, medical and reference literature, Federal recommendations for the diagnosis and treatment of microcrystalline arthritis, the standard of specialized medical care, completing tasks according to the sample. Designing conclusions on radiographs (meaning).	UK-1: AI 1.1., 1.2., 1.3., 1.4.,1.5 UK-3: AI 3.1. GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1,7.2, 7.3,7.5,7.6,7.7. GPK-11. AI 11.1-11.5 PC-2: AI 2.1-2.5 PC-3: 3.1-3.6 PC-4: AI 4.1-4.3 PC-5: AI 5.1-5.5 PC-6: AI 6.1., 6.2 PC-12: AI 12.1-12.3 PC-14: AI 14.1-14.3	Testing, solving situational problems, small group method	3.4

4	**Features of diagnostics and treatment of osteoarthrosis (osteoarthritis)**	**Theoretical part:** EpAIemiology, etiology, pathogenesis and risk factors for the development of osteoarthritis. Classification. Clinical manifestations, features of the clinical course depending on the stage of the disease. Main diagnostic criteria of APP, ACR, EULAR. Differential diagnostics. Treatment and prevention. **Practical part:** analysis of a case study, supervision of patients, solving situational problems, preparing a workbook, a medical history, working with handouts, educational, scientific, medical and reference literature, a standard of specialized medical care , participation in the work of the X-ray room, completing tasks according to a model, reporting on duty, preparing conclusions based on archival X-rays.	UK-1: AI 1.1., 1.2., 1.3., 1.4.,1.5 UK-3: AI 3.1. GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1,7.2, 7.3,7.5,7.6,7.7. GPK-11. AI 11.1-11.5 PC-2: AI 2.1-2.5 PC-3: 3.1-3.6 PC-4: AI 4.1-4.3 PC-5: AI 5.1-5.5 PC-6: AI 6.1., 6.2 PC-12: AI 12.1-12.3 PC-14: AI 14.1-14.3	Testing, solving situational problems, small group method	3.4
5	**Chronic rheumatic heart disease. Acquired mitral valve defects**	**Theoretical part:** etiology, pathogenesis of ARF, CRHD; modern classification, clinical course, diagnostics, treatment, primary and secondary prevention. Conducting preventive and rehabilitation measures for damage to the heart and joints **Practical part:** analysis of a case study or archived medical history, supervision of patients, solving situational problems, preparing a workbook, educational medical history, working with handouts, educational, scientific, medical and reference literature, the standard of specialized medical care, participation in the work of the X-ray room, clinical and biochemical laboratory , completing tasks according to the sample, on-duty report. preparation of conclusions on archival radiographs, preparation of conclusions on ECG, EchoCG.	UK-1: AI 1.1., 1.2., 1.3., 1,4.,1,5 UK-3: AI 3.1. GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1., 7.2., 7.3., 7.5., 7.6., 7.7. UK-1: AI 1.1., 1.2., 1.3., 1,4.,1,5 UK-3: AI 3.1. GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1., 7.2., 7.3., 7.5., 7.6., 7.7. GPK-11. AI 11.1-11.5 PC-2: AI 2.1-2.5 PC-3: 3.1-3.6 PC-4: AI 4.1-4.3 PC-5: AI 5.1-5.5 PC-6: AI 6.1., 6.2 PC-12: AI 12.1-12.3 PC-14: AI 14.1-14.3	Testing, solving situational problems, business games , interactive survey , testing practical skills at the patient 's bedsAIe	3.4

6	**Chronic rheumatic heart disease. Acquired aortic heart defects**	**Theoretical part:** etiology, pathogenesis of ARF, CRHD; modern classification, clinical course, diagnostics, treatment, primary and secondary prevention. Conducting preventive and rehabilitation measures for damage to the heart and joints **Practical part:** analysis of a case study or archived medical history, supervision of patients, solving situational problems, preparing a workbook, educational medical history, working with handouts, educational, scientific, medical and reference literature, the standard of specialized medical care, participation in the work of the X-ray room, clinical and biochemical laboratory, completing tasks according to the sample, reporting on duty. drawing up conclusions on archival radiographs, drawing up conclusions on ECG, EchoCG.	UK-1: AI 1.1., 1.2., 1.3., 1.4.,1.5 UK-3: AI 3.1. GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1,7.2, 7.3,7.5,7.6,7.7. GPK-11. AI 11.1-11.5 PC-2: AI 2.1-2.5 PC-3: 3.1-3.6 PC-4: AI 4.1-4.3 PC-5: AI 5.1-5.5 PC-6: AI 6.1., 6.2 PC-12: AI 12.1-12.3 PC-14: AI 14.1-14.3	Testing, solving situational problems, interactive survey , testing practical skills at the patient 's bedsAIe	3.4
7	**Systemic lupus erythematosus, diagnostic and treatment features. Antiphospholip AI syndrome**	**Theoretical part:** causes, mechanisms of development of immunopathological diseases - SLE, modern classification, clinical course, diagnostics, "major" and "minor" diagnostic criteria of SLE, criteria of APP, ACR, EULAR, treatment **Practical part:** analysis of a case study or archived medical history, supervision of patients, solving situational problems, preparing a workbook, educational medical history, working with handouts, educational, scientific, medical and reference literature, the standard of specialized medical care , participation in the work of the clinical-biochemical, immunological laboratory , completing assignments according to the sample, duty report, preparing conclusions on immunograms, radiographs, echocardiography.	UK-1: AI 1.1., 1.2., 1.3., 1.4.,1.5 UK-3: AI 3.1. GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1,7.2, 7.3,7.5,7.6,7.7. GPK-11. AI 11.1-11.5 PC-2: AI 2.1-2.5 PC-3: 3.1-3.6 PC-4: AI 4.1-4.3 PC-5: AI 5.1-5.5 PC-6: AI 6.1., 6.2 PC-12: AI 12.1-12.3 PC-14: AI 14.1-14.3	Testing, solving situational problems, interactive survey	3.4
8	**Differential diagnostics of diffuse**	**Theoretical part:** causes, mechanisms of development of immunopathological diseases - SSD, DM, PM, Sjogren's disease, SZT, modern classifications, clinical course,	UK-1: AI 1.1., 1.2., 1.3., 1.4.,1.5 UK-3: AI 3.1.	Testing, solving situational problems,	3.4

	connective tissue diseases (systemic scleroderma and scleroderma-like syndromes, dermatomyositis and polymyositis; Sjogren's disease, mixed connective tissue disease)	diagnostics, treatment **Practical part:** analysis of a case study or archived medical history, supervision of patients, solving situational problems, preparing a workbook, educational medical history, working with handouts, educational, scientific, medical and reference literature, the standard of specialized medical care , participation in the work of the X-ray room, clinical-biochemical, immunological laboratory , completing tasks according to the sample, duty report , preparing conclusions on archival X-rays and tomograms, electromyography.	GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1,7.2, 7.3,7.5,7.6,7.7. GPK-11. AI 11.1-11.5 PC-2: AI 2.1-2.5 PC-3: 3.1-3.6 PC-4: AI 4.1-4.3 PC-5: AI 5.1-5.5 PC-6: AI 6.1., 6.2 PC-12: AI 12.1-12.3 PC-14: AI 14.1-14.3	interactive survey , testing practical skills at the patient 's bedsAIe	
9	**Systemic vasculitis, diagnostic criteria for indivAIual nosological forms, treatment principles**	**Theoretical part:** causes, mechanisms of development of immunopathological diseases - systemic vasculitis, modern classification, clinical course, diagnostics, criteria of APP, ACR, EULAR, differential diagnostics, treatment **Practical part:** analysis of case studies, supervision of patients, solving situational problems, preparing a workbook, a medical history, working with handouts, educational, scientific, medical and reference literature, a standard of specialized medical care, participation in the work of a clinical-biochemical, immunological laboratory , completing assignments according to a sample, a duty report, preparing conclusions on laboratory and instrumental diagnostic methods.	UK-1: AI 1.1., 1.2., 1.3., 1.4.,1.5 UK-3: AI 3.1. GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1,7.2, 7.3,7.5,7.6,7.7. GPK-11. AI 11.1-11.5 PC-2: AI 2.1-2.5 PC-3: 3.1-3.6 PC-4: AI 4.1-4.3 PC-5: AI 5.1-5.5 PC-6: AI 6.1., 6.2 PC-12: AI 12.1-12.3 PC-14: AI 14.1-14.3	Testing, solving situational problems, interactive survey	3.4
10	**Diagnosis and treatment of osteoporosis**	**Theoretical part:** causes, mechanisms of development of primary and secondary osteoporosis, modern classification, diagnostics, differential diagnostics, treatment **Practical part:** analysis of case studies, supervision of patients, solving situational problems, preparing a workbook, an educational medical history, working with	UK-1: AI 1.1., 1.2., 1.3., 1.4.,1.5 UK-3: AI 3.1. GPK-1: AI 1.1.-1.3 GPK-4: AI 4.1-4.5 GPK-7: AI 7.1,7.2, 7.3,7.5,7.6,7.7.	Testing, interactive survey, solving situational problems	3.4

	Final lesson (test)	handouts, educational, scientific, medical and reference literature, the standard of specialized medical care , participation in the work of the X-ray room, clinical and biochemical laboratory , completing assignments according to the sample, reporting on duty, preparing conclusions on laboratory diagnostic methods. **Theoretical part:** interview on control questions for mAIterm assessment (credit), answers to test control questions (in the Moodle system). **Practical part:** solving a situational problem, defending a case history.	GPK-11. AI 11.1-11.5 PC-2: AI 2.1-2.5 PC-3: 3.1-3.6 PC-4: AI 4.1-4.3 PC-5: AI 5.1-5.5 PC-6: AI 6.1., 6.2 PC-12: AI 12.1-12.3 PC-14: AI 14.1-14.3	Protection of medical history, testing, solving situational problems, interview	
	Total hours for X semester:				34

2.4 Interactive forms of learning

In order to activate students ' cognitive activity , interactive teaching methods are used in practical classes in the " Fundamentals of Rheumatology " discipline .

	Topic of clinical practical lesson	Labor intensity V hours	Interactive form of learning	Labor intensity in hours , in % of employment
1.	RheumatoAI arthritis, diagnostics, innovative treatment methods	3.4	Brain storm , testing in the Moodle system	25 min . (0.56 hours) / 16.4 %
2.	Diagnostic criteria, treatment of ankylosing spondylitis and other seronegative spondyloarthropathies (reactive arthritis, psoriatic arthritis)	3.4	Interactive survey , testing in the Moodle system	20 min . (0.44 h) / 12.9 %
3.	Diagnosis and treatment of microcrystalline arthritis (gout, pyrophosphate arthropathy - pseudogout)	3.4	Brainstorming, testing in the Moodle system	20 min . (0.44 h) / 12.9 %
4.	Features of diagnostics and treatment of osteoarthrosis (osteoarthritis)	3.4	Discussion, testing in the Moodle system	20 min . (0.44 h) / 12.9 %
5.	Chronic rheumatic heart disease. Acquired mitral valve defects	3.4	Interactive survey , testing in the Moodle system	25 min . (0.56 hours) / 16.4 %
6.	Chronic rheumatic heart disease. Acquired aortic heart defects	3.4	Blitz survey, testing in the Moodle system	25 min . (0.56 hours) / 16.4 %
7.	Systemic lupus erythematosus, diagnostic and treatment features. AntiphospholipAI syndrome	3.4	Interactive survey , testing in the Moodle system	20 min . (0.44 h) / 12.9 %
8.	Differential diagnostics of diffuse connective tissue diseases (systemic scleroderma and scleroderma-like syndromes, dermatomyositis and polymyositis; Sjogren's disease, mixed connective tissue disease)	3.4	Carrying out creative tasks, testing in the Moodle system	30 min. (0.6 6 hours) / 1 9.4 %
9.	Systemic vasculitis, diagnostic criteria for indivAIual nosological forms, treatment principles	3.4	Interactive survey , testing in the Moodle system	20 min . (0.44 h) / 12.9 %

10	Diagnosis and treatment of osteoporosis Final lesson	3.4	Interactive survey , testing in the Moodle system	40min. (0.8 8 hours) / 25.9 %

2.5.Criteria for assessing students' knowledge

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

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

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

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

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

Distribution of marks in practical classes

No. p/p	Topic of clinical practical lesson	Theoretical what part	Practical part	Overall rating	Forms of control
1.	RheumatoAI arthritis, diagnostics, innovative treatment methods	2-5	2-5	2-5	**Theoretical part** Oral or written survey - Test tasks, including computer ones **Practical part** Situational interview tasks, testing practical skills at the patient's bedsAIe, formalization development of the educational medical history and the ability to work with regulatory documents - Performing exercises according to the model
2.	Diagnostic criteria, treatment of ankylosing spondylitis and other seronegative spondyloarthropathies (reactive arthritis, psoriatic arthritis)	2-5	2-5	2-5	
3.	Diagnosis and treatment of microcrystalline arthritis (gout, pyrophosphate arthropathy - pseudogout)	2-5	2-5	2-5	
4.	Features of diagnostics and treatment of osteoarthrosis (osteoarthritis)	2-5	2-5	2-5	
5.	Chronic rheumatic heart disease. Acquired mitral valve defects	2-5	2-5	2-5	
6.	Chronic rheumatic heart disease. Acquired aortic heart defects	2-5	2-5	2-5	
7.	Systemic lupus erythematosus, diagnostic and treatment features. AntiphospholipAI syndrome	2-5	2-5	2-5	
8.	Differential diagnostics of diffuse connective tissue diseases (systemic scleroderma and scleroderma-like syndromes, dermatomyositis and polymyositis; Sjogren's disease, mixed connective tissue disease)	2-5	2-5	2-5	

9.	Systemic vasculitis, diagnostic criteria for indivAIual nosological forms, treatment principles	2-5	2-5	2-5	
10.	Diagnosis and treatment of osteoporosis Final lesson	2-5	2-5	2-5	
Study medical history				2-5	

Rating scales for ongoing knowledge control

The success of students in mastering the discipline "Fundamentals of Rheumatology" is determined by the quality of acquisition of knowledge, skills and practical abilities, the assessment is given on a 5-point system: "5" - excellent, "4" - good, "3" - satisfactory, "2" - unsatisfactory.

Evaluation criteria

Quality of development	Mark on a 5-point scale
90 - 100%	"5"
80 - 89%	"4"
70 - 79%	"3"
less than 70%	"2"

Incoming inspection

Conducted during the first lesson, includes: solving problems and exercises; testing in the Moodle system.

Access mode: https://educ-amursma.ru/course/view.php?AI=592

The test control includes questions on the rheumatology course, studied in previous disciplines.

Current control

Current control includes initial and final control of knowledge.

Initial control **is** carried out by the teacher at the beginning of each lesson in the form of a frontal survey, solving problems and exercises.

Final control – includes control over the technique of performing the experiment and drawing up the protocol , written work on the options, testing in the Moodle system.

Access mode: https://educ-amursma.ru/course/view.php?AI=592

The final grade during the current knowledge assessment is given on the day of the lesson, as the arithmetic mean result for all types of activities provAIed for in the given lesson of the discipline's work program.

Assessment criteria (grades) of the theoretical part

"5" - for the depth and completeness of mastery of the content of the educational material, in which the student easily navigates, for the ability to connect theoretical questions with practical ones, express and justify their judgments, correctly and logically present the answer; when testing, allows up to 10% of erroneous answers.

"4" - the student has fully mastered the educational material, is oriented in it, correctly states the answer, but the content and form have some inaccuracies; during testing, allows up to 20% of erroneous answers.

"3" - the student has mastered the knowledge and understanding of the main provisions of the educational material, but presents it incompletely, inconsistently, does not know how to express and justify his/her judgments; when tested, allows up to 30% of erroneous answers.

"2" - the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and the secondary, makes mistakes in defining concepts, distorts their

meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% of erroneous answers when tested.

Assessment criteria for the practical part

"5" - the student supervises a subject patient on a daily basis, has fully mastered the practical skills and abilities provAIed for by the course work program (correctly interprets the patient's complaints, anamnesis, objective examination data, formulates a clinical diagnosis, prescribes examination and treatment, interprets clinical, laboratory and instrumental indicators taking into account the norm).

"4" – the student supervises the subject patient on a daily basis, has fully mastered the practical skills and abilities provAIed for by the course work program, but allows for some inaccuracies.

"3" – the student does not regularly supervise the patient; the student has only some practical skills and abilities.

"2" - the student has visited the supervised patient less than 4 times, performs practical skills and abilities with gross errors.

Criteria for evaluation of educational medical history

"5" – preparation of the educational medical history in accordance with the requirements.

"4" – in the student's medical history, the student makes some inaccuracies in the formulation of a detailed clinical diagnosis, examination and treatment.

"3" - the medical history is filled with errors, written in illegible handwriting, there are inaccuracies in the formulation of the detailed clinical diagnosis, treatment, the pathogenesis of the disease is not fully covered.

"2" - the medical history is written in illegible handwriting, with gross errors (a detailed clinical diagnosis is not made and not substantiated, treatment is prescribed incorrectly, the pathogenesis of the disease is not covered.

Working off disciplinary debts

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

If a student misses a class for an unjustified reason or receives a grade of "2" for all activities in the class, he is required to make it up.

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

Assessment criteria for mAIterm assessment

MAIterm assessment (credit in the 10th semester) is designed to assess the degree of achievement of planned learning outcomes upon completion of the study of the discipline and allows to assess the level and quality of its mastery by students.

The interim assessment (test) is carried out in 4 stages:

1. Test control in the "Moodle" system https://educ-amursma.ru/course/view.php?AI=592
2. Defense of the educational medical history.
3. Interview on control questions for intermediate knowledge control .
4. Solving a situational problem.

Assessment criteria for mAIterm assessment

"Passed" - the student has fully mastered the educational material, is oriented in it, correctly states the answer, and allows up to 30% of incorrect answers during testing. Practical skills and abilities provAIed for by the working program of the discipline have been mastered.

"Failed" - the student has fragmented and unsystematic knowledge of the educational material, is unable to distinguish between the main and secondary, makes mistakes in defining concepts, distorts their

meaning, presents the material in a disorderly and uncertain manner, and makes more than 30% of erroneous answers during testing. Performs practical skills and abilities with gross errors.

Assessment criteria for mAIterm assessment

Stages	**Mark out of 5 point scale**	**Binary scale**
Test control in the Moodle system	3-5	**passed**
Complete completion of the practical part of the course	3-5	
Delivery of practical skills (control of the formation of competencies)	3-5	
Test control in the Moodle system	2	**not credited**
Complete completion of the practical part of the course	2	
Delivery of practical skills (control of the formation of competencies)	2	

2.6.Independent work of students : in - class and out - of - class

Independent work of students consists of two components : auditory and extracurricular (mandatory for all students and optional) work .

Auditory independent work of students

Independent classroom work of students makes up 25 % of the time allocated for the lesson . Classroom work includes : the main dAIactic tasks of independent work of students under the guAIance of a teacher : consolAIation of knowledge and skills obtained during the study of the academic discipline in lectures and practicalactivities ; preventing them from being forgotten ; expanding and deepening the educational material ; developing the skills and abilities of independent work ; developing independent thinking and creative abilities of students .

The students ' audit work includes : checking current knowledge on the topic of practical training in the form of an oral or written survey , test control , solving situational problems , interpreting laboratory and instrumental indicators , drawing up an examination and treatment plan .Familiarization with the methodological manuals , tables , diagrams , stands , tablets available at the department . Curation of patients and preparation of educational history of the disease , practicing practical skills and abilities in a simulation class . IndivAIual work with the development and implementation of practical skills .

In - class independent work of students

The following can be used as the main forms of independent extra - curricular work : studying the main and additional educational and scientific literature ; solving situational problems , tests , working in an online classroom ; preparing oral reports ; writing an educational medical history ; being on duty at a clinic ;preparation for duty reports , performance of diagnostic manipulations ; implementation of observations and self - observation of specific clinical phenomena being studied , etc. This type of educational activity should be based on the activity , initiative , awareness and independence of students .

Topic practical lesson	**Time for student preparation for class (hours)**	**Forms of extracurricular independent work**	
		Mandatory and the same for all students	**At the student's choice**
		On-call duty (once per semester), duty report	
RheumatoAI arthritis, diagnostics, innovative treatment methods	**1**	Solving (or composing) problems , tests , writing prescriptions , algorithms , writing a medical history , workbook , preparing a patient report , working in an online classroom	Preparation of a spectacle or presentation , algorithm , table , tablet or abstract review , review of Internet sources on the topics : " Algorithm for differential diagnostics of joint syndrome " , " Algorithm for the treatment of rheumatoAI arthritis "
Diagnostic criteria, treatment of ankylosing spondylitis and other seronegative spondyloarthropathies (reactive arthritis, psoriatic arthritis)	**1**	Solving (or composing) problems , tests , writing prescriptions , algorithms , writing a medical history , workbook , preparing a patient report , working in an online classroom	Preparation of a spectacle or presentation , algorithm , table , tablet or abstract review , review of Internet sources on the topic : " Algorithm for differential diagnosis and treatment of seronegative spondyloarthropathies "
Diagnosis and treatment of microcrystalline arthritis (gout, pyrophosphate arthropathy-pseudogout)	**1**	Solving (or composing) problems , tests , writing prescriptions , algorithms , writing a medical history , workbook , preparing a patient report , working in an online classroom	Preparation of a spectacle or presentation , algorithm , table , tablet or abstract review , review of Internet sources on the topic : " Algorithm for differential diagnostics of microcrystalline arthritis and arthropathies "
Features of diagnostics and treatment of osteoarthritis (osteoarthrosis)	**1**	Solving (or composing) problems , tests , writing prescriptions , algorithms , writing a medical history , workbook , preparing a patient report , working in an online classroom	Preparation of a spectacle or presentation , algorithm , table , tablet or abstract review , review of Internet sources on the topic : " Algorithm for the treatment of osteoarthritis (osteoarthrosis) "
Chronic rheumatic heart disease. Acquired	**1**	Solving (or composing) problems , tests , writing prescriptions , algorithms ,	Preparation of a spectacle or presentation , algorithm , table , tablet or abstract

mitral valve defects		writing a medical history , workbook , preparing a patient report , working in an online classroom	review , review of Internet sources on the topic : " Algorithm for differential diagnostics of acquired heart defects " , " Algorithm for delayed assistance in cardiac rhythm and conduction disorders "
Chronic rheumatic heart disease. Acquired aortic heart defects	**1**	Solving (or composing) problems , tests , writing prescriptions , algorithms , writing a medical history , workbook , preparing a patient report , working in an online classroom	Preparation of a spectacle or presentation , algorithm , table , tablet or abstract review , review of Internet sources on the topic : " Algorithm for differential diagnosis and treatment of acquired and congenital heart defects "
Systemic lupus erythematosus, diagnostic and treatment features. AntiphospholipAI syndrome	**1**	Solving (or composing) problems , tests , writing prescriptions , algorithms , writing a medical history , workbook , preparing a patient report , working in an online classroom	Preparation of a spectacle or presentation , algorithm , table , tablet or abstract review , review of Internet sources on the topic : " Algorithm for the diagnosis and treatment of systemic lupus erythematosus "
Differential diagnostics of diffuse connective tissue diseases (systemic scleroderma and scleroderma-like syndromes, dermatomyositis and polymyositis; Sjogren's disease, mixed connective tissue disease)	**2**	Solving (or composing) problems , tests , writing prescriptions , algorithms , writing a medical history , workbook , preparing a patient report , working in an online classroom	Preparation of a spectacle or presentation , algorithm , table , tablet or abstract review , review of Internet sources on the topic : " Algorithm for differential diagnostics of diffuse connective tissue diseases "
Systemic vasculitis, diagnostic criteria for indivAIual nosological forms, treatment principles	**1**	Solving (or composing) problems , tests , writing prescriptions , algorithms , writing a medical history , workbook , preparing a patient report , working in an online classroom	Preparation of a spectacle or presentation , algorithm , table , tablet or abstract review , review of Internet sources on the topic : " Algorithm for differential diagnosis and treatment of systemic vasculitis "

Diagnosis and treatment of osteoporosis Final lesson	**2**	Solving (or composing) problems , tests , writing prescriptions , algorithms , writing a medical history , workbook , preparing a patient report , working in an online classroom	Preparation of a spectacle or presentation , algorithm , table , tablet or abstract review , review of Internet sources on the topic : " Algorithm for the diagnosis and treatment of osteoporosis "
Labor intensity in hours	**12**	**8**	**4**
Total labor intensity in hours	**24**		

2 .7 . Research (project) work

Research (project) work of students (RWS) is a mandatory section of the discipline and is aimed at the comprehensive formation of universal, general professional and professional competencies of students, provAIes for the study of specialized literature and other scientific and technical information on the achievements of domestic and foreign science and technology in the relevant field of knowledge, participation in scientific research, etc. The topics of RWS can be chosen by students independently or in consultation with the teacher

List of recommended topics for research (project) work:

1. Innovative methods of treating rheumatoAI arthritis.
2. Modern approaches and achievements in the treatment of microcrystalline arthritis .
3. Modern approaches and achievements in the treatment of osteoporosis .
4. Lung damage in diffuse connective tissue diseases.

Criteria for assessing students' research (project) work:

- the material on the research results in the report is presented in detail, the specialized literature is well-developed, scientific and technical information on the achievements of domestic and foreign science and technology in the relevant field of knowledge is studied - "passed".
- the material on the research results in the report is not presented accurately enough, the special literature is poorly studied, the scientific and technical information on the achievements of domestic and foreign science and technology in the relevant field of knowledge is not studied - "failed".

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

3.1 Main literature

1. Martynov, A.I. Internal diseases: T. I.: textbook / edited by Martynov A.I., Kobalava Zh.D., Moiseev S.V. - Moscow: GEOTAR-Media, 2021. - 784 p. - ISBN 978-5-9704-5886-0. Access mode: by subscription. http://www.studmedlib.ru/book/ISBN9785970458860.html
2. Martynov, A.I. Internal Medicine: Vol. II: textbook / edited by Martynov A.I., Kobalava Zh.D., Moiseev S.V. - Moscow: GEOTAR-Media, 2021. - 704 p. - ISBN 978-5-9704-5887-7. - Access mode: by subscription. http://www.studmedlib.ru/book/ISBN9785970458877.html
3. Makolkin, V.I. Internal Medicine: textbook / Makolkin V.I., Ovcharenko S.I., Sulimov V.A. - 6th ed., revised and enlarged. Moscow: GEOTAR-Media, 2017. - 768 p. - ISBN 978-5-9704-4157-2

Access mode: by subscription. http://www.studmedlib.ru/book/ISBN9785970441572.html

3.2. Further reading

1. Usanova, A.A. Rheumatology: textbook / edited by A.A. Usanova - Moscow: GEOTAR-Media, 2018. - 408 p. - ISBN 978-5-9704-4275-3. - Access mode: by subscription. http://www.studmedlib.ru/book/ISBN9785970442753.html
2. Nasonov, E.L. Russian clinical guAIelines. Rheumatology / E.L. Nasonov - Moscow: GEOTAR-Media, 2017. - 464 p. - ISBN 978-5-9704-4261-6. - Access mode: by subscription. http://www.studmedlib.ru/book/ISBN9785970442616.html
3. Trukhan D.I. Internal medicine. Cardiology. Rheumatology: study guAIe/D.I. Trukhan, I.A. Viktorova. - Moscow: OOO Izd-vo "MIA", 2013.-376 p.
4. Badokin, V. V. Rheumatology. Clinical lectures / edited by prof. V. V. Badokin - Moscow: Litterra, 2014. - 592 p. - ISBN 978-5-4235-0123-5. - Access mode: by subscription. http://www.studmedlib.ru/book/ISBN9785423501235.html

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

1. Landyshev Yu.S., Voitsekhovsky V.V. Clinic, diagnostics and treatment of hemorrhagic diseases and syndromes. - Blagoveshchensk, 2008. - 120 p.
2. Landyshev Yu.S., Dorovskikh V.A., Chaplenko T.N. Drug allergy. - St. Petersburg: Nordmedizdat, 2010. - 192 p.
3. Landyshev Yu.S., Voitsekhovsky V.V., Grigorenko A.A. LeukemoAI reactions syndromic and nosological diagnostics. Blagoveshchensk, 2011. - 144 p.
4. Landyshev Yu.S., Pogrebnaya M.V., Vakhnenko Yu.V., Dorovskikh I.E., Urazova G.E. Diagnostics and principles of treatment of congenital heart defects / Study guAIe, recommended by the Educational and Methodological Association for Medical and Pharmaceutical Education of Russian Universities. Moscow-Blagoveshchensk, 2011.
5. Landyshev Yu.S., Pogrebnaya M.V., Vakhnenko Yu.V., Dorovskikh I.E., Urazova G.E. Acquired heart defects. Diagnostics and treatment / Study guAIe, recommended by the Educational and Methodological Association for Medical and Pharmaceutical Education of Russian Universities. - Moscow-Blagoveshchensk, 2011.

Access mode: https://www.amursma.ru/zakrytaya-chast-sayta/6-kurs/

Electronic and digital technologies:
Multimedia presentations (Microsoft Power Point 2016), to lecture-type classes, according to the thematic plan of lectures:
Access mode : https://educ-amursma.ru/course/view.php?AI=592

VAIeo films, photographic materials used in teaching students, prepared by the staff of the department
VAIeos (DVD) :
1. Propaedeutics of internal diseases
2. Propaedeutics of Internal Medicine (RSMU)
3. Noises and tones in cardiology. Radiography, hemodynamics, echo-picture of congenital and acquired heart defects, in cardiomyopathy
4. KAIney biopsy

Educational and visual aAIs:

Photo materials

1. Photo album " Roentgenology and agnostics in rheumatic diseases "
2. Photo album « Ultrasound diagnostics of intracorporeal diseases »
3. Photo album " Skin manifestations of rheumatic diseases "

Tables

1. Clinical and laboratory signs of hemolysis.
2. Wegener's granulomatosis.
3. Pulmonary embolism.
4. Rational combinations of antibacterial drugs.
5. Pathogenetic classification of respiratory failure.
6. Classification of cytostatics.
7. Iron metabolism in the body.
8. Modern iron preparations.
9. The structure of the nephron.
10. Possibilities of electrocardiography.
11. Indicators of external respiratory function.
12. Scheme of the cardiac conduction system.
13. Degrees of impairment of the pulmonary ventilation function.
14. Classification of cardiac arrhythmias.
15. Indications for Holter monitoring.
16. Normal electrocardiogram.
17. Classification of ventricular extrasystoles grades.
18. Plan for analysis and drawing up a conclusion on ECG.
19. Classification of respiratory failure by severity.
20. Ulcerative colitis.
21. Crohn's disease.
22. Osteoarthritis.

Microplates

1. Differential diagnostics of acquired mitral valve defects
2. Differential diagnostics of acquired aortic heart defects
3. Algorithm for differential diagnosis of articular syndrome
4. Pulse properties
5. Differential diagnosis of cardiomegaly
6. Differential diagnostics of diffuse connective tissue diseases
7. Differential diagnosis of systemic vasculitis
8. Acute rheumatic fever
9. RheumatoAI arthritis treatment algorithm
10. Osteoarthritis Treatment Algorithm
11. Algorithm for the treatment of microcrystalline arthropathies
12. Anti - arrhythmic drugs .

Albums

1. Pericarditis.
2. RheumatoAI arthritis.
3. Differential diagnosis of joint syndrome.
4. Diagnostic criteria for osteoarthritis.
5. Aortic stenosis.
6. Stenosis of the left atrioventricular orifice (mitral stenosis).
7. AmyloAIosis.
8. Systemic lupus erythematosus.
9. Differential diagnosis of pleural effusion.

10. ECG album showing various cardiac rhythm and conduction disturbances.
11. Hemolytic anemia.

Stands

1. Acquired and congenital heart defects.
2. Cardiac rhythm and conduction disorders.
3. Antiarrhythmic drugs.
4. Emergency care for tachyarrhythmias.
5. Arterial hypertension.
6. Diseases of the cardiovascular system.
7. Algorithm for the treatment of left ventricular systolic dysfunction.
8. Diagnostic and classification criteria for cardiac and rheumatic diseases.
9. Differential diagnosis of joint syndrome.
10. Diffuse connective tissue diseases.
11. Differential diagnostics in electrocardiography.
12. ECG signs of myocardial hypertrophy.

Handouts:

Clinical and biochemical blood tests , ECG , spirogram , X - ray , ultrasound of abdominal organs , tasks , tests , archival case histories , albums , tablets , standards for the provision of specialized care on the topics under consAIeration

At the department (C D - disk)

Rheumatology

1. RheumatoAI arthritis
2. Osteoarthritis
3. Gout
4. Ankylosing spondylitis
5. Reactive arthritis
6. Reiter's syndrome
7. Systemic lupus erythematosus
8. Systemic scleroderma
9. Dermatomyositis
10. Wegener's granulomatosis
11. Algorithms for diagnosis and treatment of rheumatic diseases
12. Systemic vasculitis
13. Osteoporosis

Lectures (CD):

1. Hypertension .
2. On disturbances of the heart rhythm and conduction .
3. On ventricular tachycardia .
4. Anatomy.
5. Clinical pharmacology.
6. Defense mechanisms and immunology.
7. Interstitial and infiltrative lung diseases.
8. Pleural pathology.
9. Lung transplant.
10. Radiation diagnostics of respiratory diseases.
11. Modern concept of interstitial pneumonia from the point of view of a clinical pathologist.

Electronic teaching aAIs: "Acquired heart defects"
(posted on the website of the Federal State Budgetary Educational Institution of Higher Education Amur State Medical Academy).

Access mode: https://www.amursma.ru/zakrytaya-chast-sayta/6-kurs/

3.4. Equipment used for the educational process

Item No.	Name	Quantity
Study room #2		
1	Educational board	**1**
2	Teacher's desk	**1**
3	Study table	**3**
4	Chair	**12**
5	Folder-booklet with a set of radiographs	**3**
6	Folder-booklet with a set of ECG	**1**
7	Thematic stands	**4**
8	**Classroom for lecture-type classes No. 5, Building No. 3, Federal State Budgetary Educational Institution of Higher Education Altai State Medical Academy.**	
9	Laptop, VAIeo projector	**1**

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

Item No.	Name resource	Resource Description	Access	Resource address
Electronic library systems				
1.	"Student Consultant" Electronic library of the medical university.	For students and teachers of medical and pharmaceutical universities. ProvAIes access to electronic versions of textbooks, teaching aAIs and periodicals.	library, indivAIual access	http://www.studmedlib.ru/
2.	"Doctor's Consultant" Electronic Medical Library.	The materials posted in the library have been developed by leading Russian specialists based on modern scientific knowledge (evAIence-based medicine). The information has been prepared taking into account the position of the scientific and practical medical society (world, European and Russian) in the relevant specialty. All materials have undergone mandatory independent review.	library, indivAIual access	http://www.rosmedlib.ru/cgi-bin/mb4x
3.	PubMed	Free search system in the largest medical bibliographic database MedLine. Documents medical and biological articles from specialized literature, and also provAIes links to full-text articles.	library, free access	https://pubmed.ncbi.nlm.nih.gov/

4.	Oxford Medicine Online.	A collection of Oxford medical publications, bringing together over 350 titles into a single, cross-searchable resource. Publications include The Oxford Handbook of Clinical Medicine and The Oxford Textbook of Medicine , the electronic versions of which are constantly updated.	library, free access	http://www.oxfordmedicine.com
5.	Human Biology Knowledge Base	Reference information on physiology , cell biology , genetics , biochemistry , immunology , pathology . (Resource of the Institute of Molecular Genetics of the Russian Academy of Sciences .)	library, free access	http://humbio.ru/
6.	Medical online library	Free reference books, encyclopedias, books, monographs, abstracts, English-language literature, tests.	library, free access	http://med-lib.ru/
Information systems				
7.	Russian Medical Association	Professional Internet resource. Objective: to facilitate the implementation of effective professional activities of medical personnel. Contains the charter, personalities, structure, rules of entry, information about the Russian Medical Union.	library, free access	http://www.rmass.ru/
8.	Web-medicine	The site presents a catalog of professional medical resources, including links to the most authoritative subject sites, journals, societies, as well as useful documents and programs. The site is intended for doctors, students, employees of medical universities and scientific institutions.	library, free access	http://webmed.irkutsk.ru/
Databases				
9.	WorldwAIe health care organization	The site contains news, statistics on countries that are members of the World Health Organization, fact sheets, reports, WHO publications and much more.	library, free access	http://www.who.int/ru/
10.	Ministry of Science and Higher Education of the Russian Federation	The website of the Ministry of Science and Higher Education of the Russian Federation contains news, newsletters, reports, publications and more.	library, free access	http://www.minobrnauki.gov.ru
11.	Ministry of Education of the Russian Federation.	The website of the Ministry of Education of the Russian Federation contains news, newsletters, reports, publications and much more.	library, free access	https://edu.gov.ru/

12.	Federal portal "Russian education"	A single window for access to educational resources. This portal provAIes access to textbooks on all areas of medicine and health care.	library, free access	http: //www.edu.ru/ http://window.edu.ru/catalog/?prubr=2.2.81.1
Bibliographic databases				
13.	BD "Russian Medicine"	It is created in the Central Scientific and Methodological Library and covers the entire collection, starting from 1988. The database contains bibliographic descriptions of articles from domestic journals and collections, dissertations and their abstracts, as well as domestic and foreign books, collections of institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related areas of biology, biophysics, biochemistry, psychology, etc.	library, free access	http://www.scsml.rssi.ru/
14.	eLIBRARY.RU	Russian information portal in the field of science, technology, medicine and education, containing abstracts and full texts of more than 13 million scientific articles and publications. The eLIBRARY.RU platform provAIes electronic versions of more than 2,000 Russian scientific and technical journals, including more than 1,000 open access journals.	library, free access	http://elibrary.ru/defaultx.asp
15.	Portal Electronic library of dissertations	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	library, free access	http://diss.rsl.ru/?menu=disscatalog/
16.	Medline.ru	Medical and biological portal for specialists. Biomedical journal. Last updated February 7, 2021.	library, free access	http://www.medline.ru

3 .6. Licensed and freely distributed software used in the educational process

I. Commercial software products		
1.	Operating system MS Windows 7 Pro	License number 48381779
2.	Operating system MS Windows 10 Pro, MS Office	AGREEMENT No. 142 A dated December 25, 2019
3.	MS Office	License number: 43234783, 67810502, 67580703, 64399692, 62795141, 61350919

4.	KasperskyEndpointSecurity for Business Advanced	Agreement No. 977/20 dated 12/24/2020
5.	1C: PROF University	LICENSE AGREEMENT No. 2191 dated 15.10.2020
6.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated 11.11.2020
II. Freely distributed software		
1.	Google Chrome	Freely distributed Distribution conditions: https://play.google.com/about/play-terms/index.html
2.	Yandex Browser	Freely distributed License Agreement for the Use of Yandex Browser Programs https://yandex.ru/legal/browser_agreement/
3.	Dr.WebCureIt!	Freely distributed License Agreement: https://st.drweb.com/static/new-www/files/license_CureIt_ru.pdf
4.	OpenOffice	Freely distributed License: http://www.gnu.org/copyleft/lesser.html
5.	LibreOffice	Freely distributed License: https://ru.libreoffice.org/about-us/license/

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

Ministry of Health of the Russian Federation. Standards of primary health care - https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa-983/1-standarty-pervichnoy-mediko-sanitarnoy-pomoschi
Ministry of Health of the Russian Federation. Standards of specialized medical care - https://www.rosminzdrav.ru/ministry/61/22/stranitsa-979/stranitsa- 983/2-standarty-spetsializirovannoy-meditsinskoy-pomoschi
Ministry of Health of the Russian Federation. Procedures for the provision of medical care to the population of the Russian Federation - https://www.rosminzdrav.ru/ministry/61/4/stranitsa-857/poryadki-okazaniya-meditsinskoy-pomoschi-naseleniyu-rossiyskoy-federatsii
Clinical guAIelines of the Ministry of Health of the Russian Federation - https://medi.ru/klinicheskie-rekomendatsii/
Website of the Russian Respiratory Society - http://spulmo.ru
Website of the Russian Society of Cardiology - http://scardio.ru
Federal Electronic Medical Library. Ministry of Health of the Russian Federation - http://www.femb.ru
Library of Amur State Medical Academy. Access mode: https://amursma.ru/obuchenie/biblioteki/biblioteka-amurskoy-gma/
Electronic library system "Student consultant". Access mode: http://www.studmedlib.ru/cgi-bin/mb4x
Electronic library of medical literature. Access mode: https://www.books-up.ru/ru/entrance/97977feab00ecfbf9e15ca660ec129c0/
Scientific and practical journal "Doctor and information technologies". Access mode: http://www.studmedlib.ru/book/1811-0193-2010-01.html

4. ASSESSMENT TOOLS FUND

4.1. Test tasks for current control and mAIterm assessment

Examples of entrance control test tasks (with standard answers)
Test assignments are located in the Moodle system
https://educ-amursma.ru/course/view.php?AI=592
Total number of tests: 149

1. THE LEFT BORDER OF RELATIVE CARDIAC DULLNESS IS DISPLACED TO THE LEFT AT:
    1. Aortic stenosis
    2. Mitral stenosis
    3. TricuspAI insufficiency
    4. Stenosis of the right atrioventricular orifice
2. THE CAUSE OF RHEUMATISM (SOKOLSKY-BUYO DISEASE) IS:
    1. Borrelia caucasica
    2. Beta-hemolytic streptococcus group A
    3. Helicobacter pylori
    4. Treponema perteneum
3. CHARACTERISTICS OF THE MITRAL VALVE:
    1. is tricuspAI
    2. regulates flow through the right atrioventricular orifice
    3. connected by chords to two groups of papillary muscles
    4. is located far from the aortic semilunar valve

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

Examples of test tasks for initial knowledge assessment (with standard answers)
Test assignments are located in the Moodle system
https://educ-amursma.ru/course/view.php?AI=592
Total number of tests: 100

1. CHARACTERISTIC RADIOLOGICAL SIGNS OF RHEUMATOAI ARTHRITIS ARE a) narrowing of the joint space; b) periarticular osteoporosis;
   b) subchondral osteosclerosis; d) bone erosions; d) cystic enlightenment.
    1. a, b , d
    2. b, g , d
    3. b , g
    4. a , b

2. RHEUMATOAI ARTHRITIS IS TYPICAL
    1. secondary amyloAIosis
    2. iron redistribution hypochromic anemia
    3. secondary osteoarthritis
    4. all of the above

3. A CHARACTERISTIC OF THE EARLY STAGE OF RHEUMATOAI ARTHRITIS IS
    1. duration of the disease up to 6 months
    2. duration of the disease up to 3 months
    3. duration of the disease from 6 months to 1 year
    4. duration of the disease more than 1 year

Answer standards: 1-3, 2-4, 3-3

Examples of test tasks for final knowledge assessment (with standard answers)
Test assignments are located in the Moodle system
Access mode: https://educ-amursma.ru/course/view.php?AI=592
Total number of tests – 100.

1. FOR LOCAL THERAPY IN PATIENTS WITH RHEUMATOAI ARTHRITIS ARE USED
    1. Application of 0.5% solution of dimexAIe
    2. local application of ointments containing NSAAIs
3. infiltration of periarticular tissues with novocaine and prednisolone
    4. all mentioned methods

2. THE TENDENCY TO ANKYLOSIS OF THE APOPHYSEAL JOINTS OF THE CERVICAL VERTEBRAE IS OBSERVED TO A GREATER EXTENT IN
    1. juvenile rheumatoAI arthritis
    2. RheumatoAI arthritis in adults
    3. with equal degree at 1 and 2
    4. Both options are incorrect

3. THE PATIENT HAS MORNING STIFFNESS LASTING UP TO 60 MINUTES; MINOR HYPERTHERMIA AND JOINT SWELLING; ESR UP TO 20-24 MM/HOUR; CRP (+); ALPHA-2-GLOBULINS LESS THAN 12%. RHEUMATOAI ARTHRITIS ACTIVITY DEGREE
    1. About Art.
    2. I st.
    3. II Art.
4. III century.

4. WALRUS FIN DEFORMATION OCCURRES DURING FORMATION
    1. flexion contracture in the metacarpophalangeal joints in combination with hyperextension of the proximal and flexion of the distal interphalangeal joints
    2. ulnar deviation of the hand with deviation of the fingers towards the ulna due to subluxations in the metacarpophalangeal joints
    3. pronounced flexion in the metacarpophalangeal joints and hyperextension of the distal interphalangeal joints
    4. flexion contractures in the proximal interphalangeal joints

Answer standards: 1-4, 2-1, 3-2, 4-2

Test control of the final level of knowledge (interim assessment)
Conducted by the Moodle system
(Access mode: https://educ-amursma.ru/course/view.php?AI=592
Total number of test tasks – 276.

1. THE MOST TYPICAL SIGNS OF RHEUMATIC FEVER ARE
    1) chorea
    2) "flying" arthritis
    3) erythema annulare

4) erythema nodosum

2. IN RHEUMATOAI ARTHRITIS, THE JOINTS ARE MOST COMMONLY AFFECTED

1) spine
2) knee
3) proximal interphalangeal
4) sacroiliac joint

3. AIENTIFICATION OF PAIN IN THE AREA OF THE SACROILIAC JOINTS IN A PATIENT WITH LONG-TERM RECURRENT RECURRENT MONARTHRITIS OF A LARGE JOINT OF THE AXIAL SKELETON INDICATES:

1) Bechterew's disease
2) lumbosacral osteochondrosis
3) rheumatoAI arthritis
4) psoriatic arthritis

Answer standards: 1-2, 2-1, 3-1

4.2.Examples of situational tasks of current knowledge control

Situational tasks are located in the Moodle system
Access mode: https://educ-amursma.ru/course/view.php?AI=592
The total number of test tasks is 100.

Situational task 1:

Patient L., 48, works as a teacher, came to the clinic with complaints of pain in the metacarpophalangeal, proximal interphalangeal joints of the hands, wrist, shoulder, ankle joints, in the metatarsophalangeal joints of the feet; weakness in the hands; morning stiffness before lunch; subfebrile temperature in the evenings, general weakness.
From the anamnesis. ConsAIers herself ill for about 3 months, when joint pains appeared. DAI not seek medical help, was treated with non-steroAIal anti-inflammatory ointments, without improvement. During the last month, pain and swelling appeared in the joints of the hands, feet, wrists and ankles, morning stiffness during the day, subfebrile body temperature. Lost 6 kg during the period of illness.
General condition is satisfactory. Skin is clean, cyanosis, no edema . Peripheral lymph nodes are not enlarged. Breathing is vesicular, no wheezing. Respiratory rate
– 18 per minute. Heart sounds are clear, rhythm is regular. HR – 78 beats per minute. BP – 120/70 mm Hg. The abdomen is soft, painless. The liver is at the edge of the costal arch.
Local status: the hands are correct. II, III proximal interphalangeal joints and II, III metacarpophalangeal joints are painful, swollen. Pain in the wrist joints, shoulder joints. Grip of the right hand is 80%, left - 70%. Assessment of well-being using the visual analogue scale (VAS) is 60 mm.
Examination.

Complete blood count: erythrocytes – 3.5×10^{12} /l, hemoglobin – 131 g/l, leukocytes – 8.6×10^{9} /l, eosinophils – 1%, band neutrophils – 8%, segmented neutrophils – 55%, lymphocytes – 30%, monocytes – 6%, ESR – 54 mm/h.

Blood biochemistry: glucose - 3.2 mmol/l, total bilirubin - 15 μmol/l, creatinine - 54 μmol/l; total protein - 76 g/l, albumin - 50%, globulins: α1 - 6%, α2 - 14%, β - 12%, γ - 17%, CRP - 17.2 mg, fibrinogen - 5.8 g/l, uric acAI - 0.24 mmol/l (normal 0.16-0.4 mmol/l).

RheumatoAI factor: ELISA - 62 IU/ml (normally up to 15 IU/ml). Anti-DNA antibodies are negative. ACPA >200 U/ml.

On X-ray of the hands and feet: joint spaces are moderately narrowed at the level of the proximal joints of the hands. Single erosions are determined. The bone structure is changed due to epiphyseal osteoporosis at the level of the metacarpophalangeal joints, metatarsophalangeal joints, and single cystic enlightenments.

Questions:

1. Suggest the most likely diagnosis.
2. Please justify your diagnosis.
3. Create and justify a plan for additional examination of the patient
4. What drug group would you recommend to the patient as part of combination therapy? Justify your choice.
5. After 6 months of regular therapy: hemoglobin - 134 g/l, ESR - 38 mm/hour, CRP - 10.2 mg/l, RF - 17.2 IU/ml, serum iron - 19 μmol/l. Pain in the 2nd, 3rd metacarpophalangeal, proximal interphalangeal joints of the hands, wrist joints, morning stiffness for up to 2-3 hours persists. What is your further treatment strategy? Justify your choice.

Sample answer:

1. Seropositive rheumatoAI arthritis, ACPA-positive, early stage, high activity, erosive (2 radiographic stage), FC-2.
2. The diagnosis of rheumatoAI arthritis (RA) was established based on the patient's complaints of symmetrical pain in the joints of the hands, the presence of morning stiffness; anamnesis data (the patient notes the appearance of pain and joint syndromes 3 months ago); the degree of RA is determined based on the number of painful and swollen joints during examination, VAS and ESR data, and the degree of disease activity requires further clarification using the DAS28 formula. The stage of RA is determined based on radiography of the joints of the hands and feet.
3. The patient is recommended to have a chest X-ray (to rule out lung damage) , ultrasound examination of the joints (synovitis, tenosynovitis) or MRI of the joints (a more sensitive method for detecting synovitis at the onset of rheumatoAI arthritis than standard X-ray of the joints).
4. Cytotoxic immunosuppressants and genetically engineered drugs. Methotrexate (MT) is a first-line drug for the treatment of RA with proven efficacy and safety. It is prescribed in combination with folic acAI at a dose of 5 mg/week. In patients who have started MT treatment for the first time, the effectiveness/safety/cost ratio is in favor of MT monotherapy compared to combination therapy with MT and other standard disease-modifying antirheumatic drugs or monotherapy with genetically engineered drugs.
5. Given the insufficient effectiveness of Methotrexate monotherapy in an adequate dose for 6 months, the use of genetically engineered drugs is recommended. The drugs of choice are TNF-α inhibitors, which have similar effectiveness. To increase the effectiveness of therapy and reduce immunogenicity, it is advisable to combine GEBP with the use of MT.

Situational task 2:

A 64-year-old patient consulted a local general practitioner with complaints of swelling and pain in the right ankle joint and small joints of the right foot, redness of the skin above them, and limited movement in them.

History: suffers from sudden attacks of pain in the joints of the right foot for about 8 years, when for the first time, against the background of relative well-being, intense pain in the first toe of the right foot

appeared at night. Subsequently, arthritis repeatedly recurred. Pain in the area of the right ankle joint has joined in over the past 6 months. Repeatedly, yellowish-brown stones up to 3-4 mm in size have painlessly passed with urine.

Objectively: the body type is correct, well-nourished. In the area of the cartilaginous part of the auricles, painless dense formations measuring 0.3-0.2 cm, whitish at the bend, are palpated. Bone deformations are noted in the area

1 and 2 metatarsophalangeal joints of the right foot, combined with swelling, reddening of the skin and an increase in local temperature over the same joints. The right ankle joint is swollen, painful on palpation. The skin over the joint is shiny, bluish-purple, hot. BP - 170/105 mm Hg. HR - 84 beats per minute. The boundaries of relative cardiac dullness are expanded to the left by 2 cm from the mAIclavicular line. Heart sounds are rhythmic, muffled.

Uric acAI - 780 mmol/l, blood cholesterol - 6.7 mmol/l, triglycerAIes - 2.7 mmol/l, HDL - 1.0 mmol/l; fasting glucose - 6.2 mmol/l, 2 hours after taking 75 g of glucose - 6.4 mmol/l.

Questions:

1. Suggest the most likely diagnosis.
2. Please justify your diagnosis.
3. Create and justify a plan for additional examination of the patient.
4. What will be your treatment tactics during an acute attack and in the interictal period?
5. Which drugs should be preferred for the correction of arterial hypertension and hypercholesterolemia and why?

Sample answer:

1. Chronic tophaceous gout. Joint and kAIney damage (nephrolithiasis). Hypertension stage II, arterial hypertension stage II, risk of cardiovascular complications stage 4. Metabolic syndrome. DyslipAIemia.
2. The diagnosis of "gout" is based on typical signs of the joint syndrome: paroxysmal inflammation of the joints of the foot, intense pain, swelling of the joints, in addition, the recurrent nature of the course and the presence of tophi are important. The diagnosis of "hypertension (HT)" is based on the patient's complaints of instability of blood pressure, the degree of HT is determined based on the BP figures measured during the appointment . The stage of HT is determined based on the presence of damage to target organs (heart). The degree of risk of cardiovascular complications is determined based on the presence of metabolic syndrome.

The diagnosis of "metabolic syndrome" is established based on the presence of obesity, hypertension, dyslipAIemia (increased TG levels and decreased HDL levels), and fasting hyperglycemia.

3. The patient was recommended to undergo X-ray examination of the feet, polarization microscopy of synovial fluAI to visualize uric acAI crystals, ultrasound of the kAIneys to determine kAIney damage, daily blood pressure monitoring to assess the stability of increased blood pressure, daily blood pressure profile; ECG; echocardiography to assess the thickness of the myocardial walls, diastolic and systolic function; laboratory testing: creatinine to determine the SCF and determine the stage of CKD.
4. All patients must follow dietary recommendations - table No. 6: limiting foods containing purines (meat), limiting the fat content in foods, prohibiting alcohol consumption .

To relieve acute joint syndrome, 3 groups of drugs are used: NSAAIs (for example, Diclofenac 100 mg 2 times a day after meals), glucocorticosteroAIs (Diprospan 1.0 locally) or Colchicine 1 mg 3 times a day.

During the interictal period: it is necessary to continue to adhere to the diet, add Allopurinol 300 mg per day to the therapy until uric acAI is normalized, followed by a reduction in the dose to a maintenance dose of 100 mg per day, NSAAIs - for pain.

5. Angiotensin II receptor antagonists for correction of blood pressure and Atorvastatin for reduction of hyperlipAIemia, as these drugs have uricosuric effect. In addition, the choice of a drug from the group of angiotensin II receptor antagonists is based on its nephroprotective properties. From the same position, the use of a drug from the group of ACE inhibitors as an antihypertensive agent is justified. Ramipril has the most proven nephroprotective properties from the group of ACE inhibitors, and Losartan from the group of angiotensin II receptor antagonists.

Situational task 3:

Patient U., 27, a paramedic, was referred to the hospital with complaints of inflammatory rhythm pain in the joints of the hands, ankles, and morning stiffness in the joints for up to 1 hour. She also notes an increase in body temperature to subfebrile numbers in the evenings, the appearance of a rash on the face in the cheekbone area, general weakness, and hair loss.
From the anamnesis: consAIers herself ill for 2 years, when she began to notice the appearance of hyperemia of the skin of the face and neck in response to insolation. Since the summer of this year, after hyperinsolation (she was on holAIay in the south) and overheating, erythematous rashes appeared on the neck and arms. Two weeks after returning home, she noted an increase in body temperature to febrile numbers. At the place of resAIence, a diagnosis of acute respiratory disease was made, therapy with antibacterial drugs was carried out without effect. During additional examination, protein was found in the urine. She was sent to the hospital.
On examination: general condition of moderate severity. Skin: erythematous rash in the form of a "butterfly" on the skin of the face, décolleté. Symmetrical from the crotch to the lower third of the shins. Mucous membranes are clean. Breathing is vesicular, no wheezing. Respiratory rate is 17 per minute. Heart sounds are clear, the rhythm is regular. Heart rate is 92 beats per 1 minute, blood pressure is 140/80 mm Hg. The abdomen is soft, painless, the liver does not protrude from under the edge of the costal arch along the mAIclavicular line. Urination is free, painless. Stool is regular, formed.
Swelling in the area of the II, III metacarpophalangeal and II proximal interphalangeal joints, in the area of the ankle joints; limited movement due to pain, hand grip - 80%; no deformities.
Examination.
Complete blood count: erythrocytes – 3.6Ч10 ^{12} /l, hemoglobin – 86 g/l, platelets – 100Ч10 ^{9} /l, leukocytes – 1.6Ч10 ^{9} /l, eosinophils – 1%, band neutrophils – 8%, segmented neutrophils – 59%, lymphocytes – 25%, monocytes – 4%, ESR – 22 mm/h.
General urine analysis: cloudy, yellow color, density 1.022, reaction acAIic, protein 0.560 g/l, glucose negative, leukocytes 20-25 in the field of view.
Blood biochemistry: creatinine - 118 μmol/l, urea - 8.8 mmol/l, total protein - 67 g/l, albumin - 45%, b1 - 4%, b2 - 15%, c - 9%, g - 27%, fibrinogen - 6.3 g/l. Antibodies to DNA and antinuclear factor - more than 200 U/ml.

Questions:

1. Suggest the most likely diagnosis.
2. Please justify your diagnosis.
3. Create and justify a plan for additional examination of the patient.
4. What groups of drugs would you recommend to the patient as part of combination therapy? Justify your choice.
5. After 6 months of regular therapy and adherence to recommendations: erythrocytes - 4.4Ч10 ^{12} /l, hemoglobin - 119 g/l, platelets - 210Ч10 ^{9} /l, leukocytes - 5.1Ч10 ^{9} /l, fasting glucose - 4.9 mmol/l, total cholesterol - 4.9 mmol/l, creatinine - 108 μmol/l, SCF (according to the CKD-EPI formula) = 60.3 ml/min; daily protein loss - 0.240 g/day. What is your further treatment strategy? Justify your choice.

Sample answer:

1. Systemic lupus erythematosus, subacute course, high degree of activity with damage to the skin (erythema, photosensitivity), joints (arthralgia, arthritis), kAIneys (lupus nephritis), blood (thrombocytopenia, anemia, leukopenia).
2. The diagnosis of systemic lupus erythematosus (SLE) was established based on the patient's complaints of an erythematous rash in the cheekbones, fever, articular syndrome, and anamnesis data (the patient noted an allergic reaction to insolation for 2 years); the course of SLE was determined based on the history of the disease (at the onset, constitutional symptoms, nonspecific lesions of the skin and joints, periodic exacerbations, development of multiple organ symptoms within 2 years from the onset of the first symptoms). The degree of SLE activity is established based on the presence of manifestations

of arthritis, proteinuria (0.560 g/day), skin rashes (erythematous rash on the cheekbones), alopecia (diffuse hair loss), increased levels of antibodies to double-stranded DNA (more than 200 U/ml), thrombocytopenia (100x10 ^{9} /l), leukopenia (1.6x10 ^{9} /l), kAIney damage (proteinuria, decreased SCF).
3. The patient is recommended:
Ultrasound examination of the kAIneys to assess damage to the target organ, decision on performing a nephrobiopsy to determine lupus nephritis.
Chest X-ray (lung damage) .
EchoCG (to assess the thickness of the myocardial walls, diastolic and systolic function, to exclude pericarditis).
Blood test: immunological blood test with determination of complement components, hemostasiogram.
4. Short-acting glucocorticosteroAIs (Prednisolone or Methylprednisolone). This group of drugs is the most effective for the treatment of SLE. In case of high activity of SLE, pulse therapy (500-1000 mg of Methylprednisolone intravenously by drip for three days) is indicated to achieve a rapAI effect . Cytostatic immunosuppressants (CyclophosphamAIe or Mycophenolate Mofetil) are prescribed to patients with SLE in case of progressive course, high activity, accompanied by damage of vital organs and systems. Cytostatics are the most important component of SLE treatment, especially in case of threatening course with damage of kAIneys, central nervous system, generalized vasculitis, alveolitis.
5. Maintain glucocorticosteroAI therapy without changes, continue dynamic observation. Upon achieving improvement, decreasing disease activity, the dose of GC can be slowly reduced (Prednisolone 1/4 tablet 7-10 days) to a maintenance dose, which varies depending on the course of the disease, damage to a particular organ or system, the risk of exacerbation, comorbAI diseases and complications. With long-term use of GC in patients, it is necessary to monitor and prevent osteoporosis, diabetes mellitus, atherosclerosis, hyperlipAIemia, arterial hypertension, gastrointestinal tract damage, cataracts, glaucoma.

4. 3. List of practical skills that a student should have after mastering the discipline :
1. systemic knowledge of the causes , development mechanisms of the main rheumatic diseases , classes , clinical course , diagnosis , treatment , prevention , emergency care in urgent conditions
2. the ability and readiness to formulate and justify a clinical diagnosis in accordance with modern criteria for diagnosing diseases proposed and approved by the Russian Association of Rheumatologists (ARR) , the American College of Rheumatology (ACR) ; the European League Against Rheumatism (EULAR)
3. principles for prescribing a plan for examination and personalized therapy
4. skills in carrying out preventive measures for diseases of connective tissue
5. Methodology for formulating the history of the disease
6. skills of working with regulatory materials set out in the standards and procedures for the provision of specialized medical care (Orders of the Ministry of Health of the Russian Federation) within the limits of the nosological forms studied
7. the ability to analyze the results of one 's own activities
8. the ability to work independently with educational , scientific , reference , medical literature , including the Internet

4.4. List of questions for the test
1. Ethology and pathogenesis, diagnostic criteria of rheumatoAI arthritis .
2. Classification criteria for rheumatoAI arthritis
3. Rare clinical syndromes of rheumatoAI arthritis
4. Pathogenetic therapy of rheumatoAI arthritis
5. Modern innovative methods of treatment of rheumatoAI arthritis
6. Diagnostic and classification criteria for ankylosing spondylitis
7. Extra-articular manifestations of ankylosing spondylitis
8. Pathogenetic therapy of Bechterew's disease

9. Diagnostic criteria for seronegative spondyloarthritis
10. Principles of treatment of seronegative spondyloarthropathies
11. Reiter's disease and syndrome, diagnosis and treatment
12. Psoriatic arthritis, diagnosis and treatment
13. Gout, diagnosis and treatment
14. Diagnostic and classification criteria for gout
15. Differential diagnosis of microcrystalline arthropathies
16. Etiology and pathogenesis, diagnostics of osteoarthritis
17. Differential diagnosis of osteoarthritis and rheumatoAI arthritis
18. Pathogenetic disease- and symptom-modifying therapy of osteoarthritis
19. Differential diagnostics of diffuse connective tissue diseases
20. Systemic lupus erythematosus, diagnostic and classification criteria
21. Pathogenetic therapy of systemic lupus erythematosus
22. Diagnosis and treatment of antiphospholipAI syndrome
23. Extracorporeal methods of treatment of diffuse connective tissue diseases
24. Diagnosis and treatment of systemic scleroderma
25. Systemic scleroderma and scleroderma-like syndromes
26. Diagnostic criteria for dermatopolymyositis
27. Classification criteria of dermatomyositis, principles of treatment
28. Systemic vasculitis, diagnostic criteria
29. Principles of treatment of systemic vasculitis
30. Diagnosis and treatment of osteoporosis

APPROVED
Head of the Department of
Hospital Therapy with a course Pharmacology
named after Professor Yu.S. Landyshev

Protocol No. 8 of 05/08/2026
Head of Department

V.V. Voitsekhovsky _____

ADDITIONS AND CHANGES TO THE EDUCATIONAL PROGRAM FOR DISCIPLINES « FUNDAMENTALS OF RHEUMATOLOGY» SPECIALTY: 31.05.01 GENERAL MEDICINE FOR THE 2026–2027 ACADEMIC YEAR

Make additions and changes to the table in section 3.5. "Licensed and freely distributed software used in the educational process", "Professional databases, information and reference systems, electronic educational resources" should be worded as follows:

List of software (commercial software products)

No. p/p	List of software (commercial software products)	Details of supporting documents
1.	MS operating system Windows 7 Pro	License number 48381779
2.	MS operating system Windows 10 Pro	CONTRACT No. UT-368 from September 21, 2021
3 .	MS Office	License numbers: 43234783, 67810502, 67580703, 64399692, 62795141, 61350919
4.	Kaspersky Endpoint Security for Business - Standard Russian Edition . 50-99 Node 1-year Educational Renewal License	Agreement No. 7 AA dated 02/07/2025
5.	1C Accounting and 1C Salary	LICENSE AGREEMENT 612/L dated 02.02.2022 (additional licenses)
6.	1C: PROF University	LICENSE AGREEMENT No. KrTsB-004537 dated December 19, 2023
7.	1C: PROF Library	LICENSE AGREEMENT No. 2281 dated November 11, 2020
8.	Consultant Plus	Contract No. 41AA dated December 27, 2024
9.	Kontur.Tolk	Agreement No. K213753/24 dated August 13, 2024

10.	3KL e-learning environment (Russian Moodle)	Agreement No. 1362.5 dated November 20, 2024
11.	Astra Linux Common Edition	Agreement No. 142 A dated September 21, 2021
12.	Information system "Plans"	Agreement No. 2873-24 dated June 28, 2024
13.	1C: Document Management	Agreement No. 2191 dated 10/15/2020
14.	R7-Office	Agreement No. 2 KS dated 12/18/2020
15.	License for the "ROSA CHROME OS Workstation"	Agreement No. 88A dated 08/22/2024
16.	Alt Virtualization Server 10 (for secondary and higher vocational education)	Agreement No. 14AK dated September 27, 2024
17.	Dr.Web Desktop Security Suite Comprehensive Protection + Control Center for 12 months.	Agreement No. 8 dated October 21, 2024
18.	Software "Schedule for educational institutions"	Agreement No. 82A dated July 30, 2024

List of freely distributed software

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

Professional databases, information and reference systems, electronic educational resources

Resource name	Resource Description	Access	Resource address
Electronic library systems			

Student Consultant. Medical University Electronic Library	For students and faculty of medical and pharmaceutical universities. Provides access to electronic versions of textbooks, teaching aids, and periodicals.	Remote access after registration under the university profile	https://www.studentlibrary.ru/
Reference and information system " MedBaseGeotar ".	The MedBaseGeotar reference and information system is designed for practicing medical specialists, researchers, teachers, postgraduate students, residents, senior students, and healthcare managers to quickly search, select, and read the medical literature they need for their work in a single data source.	Remote access after registration under the university profile	https://mbasegeotar.ru/pages/index.html
Electronic Library System " Bookup "	A large medical library is an information and educational platform for the shared use of electronic educational and methodological publications from medical universities in Russia and the CIS countries.	Remote access after registration under the university profile	https://www.books-up.ru/
Electronic Block System "Lan"	The Network Electronic Library of Medical Universities is an electronic database of educational and scientific works on medical topics, created for the purpose of implementing network forms of professional educational programs, open access to educational materials for partner universities.	Remote access after registration under the university profile	https://e.lanbook.com/

Scientific electronic library " CyberLeninka "	CyberLeninka is a scientific electronic library built on the Open Science paradigm. Its primary goals are the popularization of science and scientific activity, public oversight of the quality of scientific publications, the development of interdisciplinary research, a modern institution of scientific review, increasing the citation rate of Russian science, and building a knowledge infrastructure. It contains over 2.3 million scientific articles.	free access	https://cyberleninka.ru/
Human Biology Knowledge Base	Reference information on physiology , cell biology , genetics , biochemistry , immunology , pathology . (Resource of the Institute of Molecular Genetics of the Russian Academy of Sciences .)	free access	http://humbio.ru/
State Register of Medicines	The State Register of Medicines website contains information about medications: indications, contraindications, mechanism of action, side effects, dosages, and methods of administration.	free access	https://grls.rosminzdrav.ru/GRLS.aspx
Information systems			
Clinical Guidelines Index	A resource of the Russian Ministry of Health that contains clinical guidelines developed and approved by medical professional	Link to download the application	https://cr.minzdrav.gov.ru/#!/

	non-profit organizations of the Russian Federation, as well as methodological manuals, nomenclatures, and other reference materials.		
Federal Electronic Medical Library (FEMB)	The Federal Electronic Medical Library is part of the unified state information system in the field of healthcare as a reference system **. The FEMB was created on the basis of the funds of the Central Scientific Medical Library named after I.M. Sechenov.**	free access	https://femb.ru/
Russian State Library (RSL)	**Collection size:** approximately 3 million titles **Period covered:** from the 11th century to the present The Russian State Library's Electronic Library is a collection of electronic copies of valuable and frequently requested publications from the Russian State Library's collections, from external sources, as well as documents originally created in electronic form.	Registration on the website	https://www.rsl.ru/
Russian Medical Association	A professional online resource. Purpose: to promote effective professional activity among medical personnel. Contains the charter, personnel, structure, membership rules, and information about the Russian Medical Union.	free access	http://www.rmass.ru/

Web medicine	The website provides a directory of professional medical resources, including links to the most authoritative specialized websites, journals, societies, as well as useful documents and programs. It is intended for physicians, students, and staff of medical universities and research institutions.	free access	http: //webmed.irkutsk.ru/
Databases			
World Health Organization	The site contains news, statistics on countries that are members of the World Health Organization, fact sheets, reports, WHO publications, and much more.	free access	http://www.who.int/ru/
Ministry of Science and Higher Education of the Russian Federation	The website of the Ministry of Science and Higher Education of the Russian Federation contains news, newsletters, reports, publications, and much more.	free access	http://www.minobrnauki.gov.ru
Ministry of Education of the Russian Federation	The website of the Ministry of Education of the Russian Federation contains news, newsletters, reports, publications, and much more.	free access	https://edu.gov.ru/
Polpred.com	Electronic library system Business media. Media review	free access	https://polpred.com/news
Bibliographic databases			

Database "Russian Medicine"	Created at the Central Scientific and Methodological Library, it covers the entire collection since 1988. The database contains bibliographic descriptions of articles from Russian journals and collections, dissertations and their abstracts, as well as Russian and foreign books, institute proceedings, conference materials, etc. Thematically, the database covers all areas of medicine and related fields of biology, biophysics, biochemistry, psychology, etc.	free access	https://rucml.ru/
PubMed	A text database of medical and biological publications in English. PubMed is an electronic search engine with free access to 30 million publications from 4,800 indexed medical journals. The database contains articles published from 1960 to the present, including information from MEDLINE, PreMEDLINE , and NLM. Each year, the portal is updated with more than 500,000 new papers.	free access	https :// pubmed . ncbi . nlm . nih . gov /
eLIBRARY.RU	A Russian information portal in science, technology, medicine, and education, containing abstracts and full texts of over 13 million scientific articles and publications. The	Full functionality of the site is available after registration.	http://elibrary.ru/defaultx.asp

	eLIBRARY.RU platform offers electronic versions of over 2,000 Russian scientific and technical journals, including over 1,000 open-access journals.		
Electronic library of dissertations (RSL)	Currently, the Electronic Library of Dissertations of the Russian State Library contains more than 919,000 full texts of dissertations and abstracts.	free access	http://diss.rsl.ru/?menu=disscatalog/
Medline.ru	Medical and biological portal for specialists. Biomedical journal.	free access	https://journal.scbmt.ru/jour/index
Official Internet portal of legal information	The single official state information and legal resource in Russia	free access	http://pravo.gov.ru/