

«APPROVED» by
Rector of JSC «SKMA»
Seitzhanova Zh. S.

« » 2025y.



SOUTH KAZAKHSTAN
**MEDICAL
ACADEMY**

**EDUCATIONAL RESIDENCY PROGRAM
7R01102**

RHEUMATOLOGY (ADULT, CHILDREN)

Shymkent 2025yy

ONTUSTIK-KAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Therapy and cardiology		51/11
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The educational program of the residency 7R01102 Rheumatology(adults,children) was developed by the Department of Cardiology Therapy Head of the Department,

Head of the Department, PhD, Acting Associate Professor G.K.Assanova

Protocol № 9 from "28" 03 2025 y.

Agreed with the employer:

care head of the department of rheumatology

Baimukhamedov Ch.T.

Discussed at the meeting of the Academic Committee of Pediatric Profile

Chairman of the AC, Associate Professor

Zh.A.Kauyzbai

Protocol № 4 from "21" 04 2025 y.

Approved by the Clinical Council

Chairman, Professor

B.K.Nurmashev

Protocol № 8 from "25" 04 2025 y.

Approved by the Academic Council

Protocol № 13 from "02" 05 2025 y.

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Educational program passport

1. The mission of the educational program

To be recognized as a leader in the field of training highly specialized, competitive rheumatologists.

2. The purpose of the educational program

Training of doctors who have professional abilities and independently provide specialized highly qualified rheumatological care to the population, regardless of age and gender.

3. Justification of the OP

Rheumatology is a specialization of internal medicine that deals with the diagnosis and therapy of groups of diseases that manifest themselves in systemic/local damage to the connective tissues of the musculoskeletal system of the human body. The need for rheumatologists in the Republic of Kazakhstan at all levels of medical care is very high.

The need of medical organizations for rheumatologists is the justification for the discovery and the need to train rheumatologists, primarily at the regional level, taking into account the main strategies and programs for the development of the healthcare system at the international, national and regional levels in order to increase the level of rational use of medicines.

4. The educational program is developed on the basis of:

- Order of the Minister of Health of the Republic of Kazakhstan dated 07.04.2022 No. KR DSM-63 "On approval of state mandatory standards for levels of education in the field of healthcare";
- Professional standard " Rheumatology (adult, children's) " (Order of the Minister of Health of the Republic of Kazakhstan dated January 25, 2024 No. 46 "On approval of professional standards in the field of healthcare".
- On Amendments and additions to the Order of the Minister of Health of the Republic of Kazakhstan "On approval of the list of medical specialties of residency programs" dated May 25, 2021 No. KR DSM - 43 and "On approval of standard training programs in medical and pharmaceutical specialties" dated January 9, 2023 No. 4. (Order of the Minister of Health of the Republic of Kazakhstan dated 10 November 2023, No. 164).

5. The field of professional activity. Healthcare

6. Objects of professional activity. Medical organizations providing inpatient and outpatient care, healthcare systems of the Republic of Kazakhstan

Information about educational program

№	Characteristics of the EP	Data
1	Registration number	7R01100273
2	Code and classification of the field of education	7R01 Healthcare (medicine)
3	Code and classification of training areas	7R011 Healthcare
4	Group of educational programs	R002 Rheumatology adult, children
5	Names of educational program	7R01102 Rheumatology (adult, children)
6	Type of EP	Updated EP
7	Level of MSKO	7
8	Level of NRK	7
9	Level of ORK	7
10	Distinctive features of the EP	Compiled according to the professional standard
	Partner University (COП)	No
	Partner University (ДЮП)	No
11	List of competencies	C1. Patient supervision: is able to formulate a clinical diagnosis, prescribe a treatment plan and evaluate its effectiveness based on evidence-based practice at all levels of medical care.; C2. communication and collaboration: He is able to effectively interact with the patient, his environment, and healthcare professionals in order to achieve the best results for the patient.; C3. safety and quality: He is able to assess risks and use the most effective methods to ensure a high level of safety and quality of medical care.; C4. public health: He is able to act within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan in his specialty, provide basic assistance in emergency situations, and work as part of interprofessional teams to implement national health promotion policies.; C5. researches: He is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, and participate in the work of a research team.;

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		C6. Training and development: He is able to study independently and train other members of a professional team, actively participate in discussions, conferences and other forms of continuous professional development.
12	Learning outcomes	LO1: Has the skills of diagnosis, differential diagnosis, treatment, evaluation of its effectiveness based on evidence-based practice and preventive measures at all levels of rheumatological care LO2: Predicts the outcome of the disease and its complications; uses the most effective methods to ensure a high level of safety and quality of medical rheumatological care. . LO3: Interacts with a patient with rheumatological pathology, his environment and colleagues, in order to achieve the best results for the patient. LO4: Operates within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan under the educational program "Rheumatology (adult, children)"; works as part of interprofessional teams, interacts with the patient, his environment, healthcare professionals to conduct medical examinations in relation to patients with rheumatic diseases. LO5: Participates in conducting research work by evaluating professional literature, using international Participates in conducting research work by evaluating professional literature, using international databases, formulating research questions and finding answers to them. critically evaluates professional literature, effectively uses international databases in his daily activities, participates in the management of medical documentation, medical statistical information using artificial intelligence., formulating research questions and finding answers to them. LO6: Carries out continuous professional development in the field of rheumatology through self-study and training of others, participation in conferences and discussions..

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13	Form of training	Full - time
14	Language of training	Kazakh and Russian
15	Volume of loans	Total 140
16.	Duration of training:	2 years
17	Assigned qualification	Doctor-rheumatologist adults, children
18	Availability of an appendix to the license for the direction of training	№KZ36LAA00011387
19	Existence of EP accreditation	+
	Name of accreditation body	IAAR
	Accreditation period	№ № KZ73LAA00011788. 10.06.2022-09.06.2027.
	Information about the disciplines	Appendix 1.2

Appendix 1.

The matrix of correlation of learning outcomes according to the educational program as a whole with the competencies being formed

	LO1	LO2	LO3	LO4	LO5	LO6
C1	+	+	+			
C2		+		+		
C3			+		+	
C4				+		
C5					+	
C6						+

Appendix 2

Matrix of achievability of competencies/learning outcomes

№	The name of the disciplin	Short description	Cycle	Component	Number of credits	Formed LO
1	Outpatient clinic rheumatology, adult	Organization of outpatient care for rheumatological patients. Stationary substituting technologies. Clinical protocols of the Republic of Kazakhstan, clinical recommendations of the international medical communities on topical	PD	UC	26	LO3 LO5



		rheumatological diseases (RD). Features of diagnosis, treatment and follow-up of pregnant women with RD. Prevention and rehabilitation of patients with RD. Clinical examination of patients with RD. Medical and social expertise of patients with RD. Portal «Bureau of Hospitalization».				
2	Outpatient clinic rheumatology, children's	Organization of outpatient care for children of rheumatological profile. Features of the course of rheumatological diseases in childhood. Issues of timely diagnosis, treatment, prevention, and rehabilitation using clinical protocols and clinical recommendations for rheumatological diseases in pediatrics. Inpatient-replacement and consultative-diagnostic care in pediatric rheumatology.	PD	UC	26	LO2 LO3 LO6
3	Rheumatology in the hospital, adult-1	Epidemiology of rheumatological diseases. Nomenclature and classification of rheumatological diseases. Methods of examination of rheumatological patients. Differential diagnosis of joint diseases. Clinical immunology and	PD	UC	18	LO1 LO5 LO6

		immunopathology of rheumatological diseases. Basic principles of treatment of rheumatological diseases. Clinical protocols and clinical recommendations (RC, EULAR, ARA, R). Rehabilitation of patients with pathology of the articular apparatus in stationary conditions. Research in rheumatology.				
4	Rheumatology in the hospital, adult-2	Epidemiology of rheumatological diseases. Nomenclature and classification of rheumatological diseases. Methods of examination of rheumatological patients. Differential diagnosis of joint diseases. Clinical immunology and immunopathology of rheumatological diseases. Basic principles of treatment of rheumatological diseases. Clinical protocols and clinical recommendations (RC, EULAR, ARA, R). Rehabilitation of patients with pathology of the articular apparatus in stationary conditions. Research in rheumatology.	PD	UC	24	LO1 LO5 LO6
5	Rheumatology in the hospital, children's	Providing specialized medical inpatient care for rheumatological diseases in children. Age-related and genetic aspects of	PD	UC	40	LO2 LO3 LO6



		rheumatological diseases in children. Features of rheumatological diseases in childhood. Selection and conduct of diagnostic tests. Principles of treatment. Psychological assistance to patients and their relatives with chronic rheumatological diseases in children. Rehabilitation in JRA in stationary conditions.				
	ALL		134			
Cycle of major disciplines Elective component						
6	Pregnancy rheumatic diseases	Develops knowledge and skills in tactics of management in the prenatal and postnatal period of women with rheumatic diseases, identification of features of the course of rheumatic pathology in pregnant women, management during pregnancy, therapy and choice of treatment tactics, according to the expected prognosis of the disease and possible complications, development of rheumatic disease during pregnancy and in the postnatal period using an international database and artificial intelligence; use of digital tools in healthcare; work in a research team; in the management of medical	PD	UC	2	LO2 LO3



		documentation and medical statistical information.				
7	Biostatistics in rheumatology	Methodological tools of descriptive and analytical statistics, types and features of biomedical research, experimental and clinical research in the field of the use of biological drugs in rheumatology. Computer statistical programs, acquisition of skills of independent work with software products and solving practical problems necessary for planning, conducting and processing research results. Using digital tools in healthcare. Management of medical records and medical statistical information.	PD	EC	2	LO5 LO6
8	Immunological tests in rheumatology	Immunological laboratory diagnostics of rheumatological diseases. Principles of diagnostic use of immunological tests. Calculation of analytical parameters of immunological tests in rheumatology. Interpretation of the results of serological examination in systemic rheumatological diseases. Methods of immunological diagnostics in rheumatology. Standardization and	PD	EC	2	LO4 LO5 LO6

		quality control of immunological tests. Clinical use of immunological tests in the diagnosis of rheumatological diseases				
9	The use of biological drugs in rheumatological diseases	Genetic engineering biological preparations in rheumatology. Legal regulation of biological preparations in the Republic of Kazakhstan. Classification of genetically engineered biological drugs. Rheumatological diseases in which biological drugs are used. Pharmacodynamics, pharmacokinetics and pharmacoeconomics of genetically engineered biological drugs. Features of the use of biological drugs. Side effects of biological drugs. Contraindications to therapy with biological drugs.	PD	EC	2	LO2 LO5
	TOTAL		138			
	Final certification		2			
	TOTAL		140			

Professional standard: "Rheumatology (adult , children's)"

Profession card "7.2 Rheumatologist":	Mandatory labor functions:	1. Provision of specialized medical care and management of patients with rheumatic diseases at the outpatient and hospital levels.
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		2. Conducting medical examinations in relation to patients with rheumatic diseases.
		3. Participation in the management of medical documentation, medical and statistical information
	Additional labor functions:	1. Provide advisory assistance in the management of patients with rheumatic diseases at the outpatient and inpatient levels. 2. Continuous professional development.
Labor function 1: Provision of specialized medical care and management of patients with rheumatic diseases at the outpatient and hospital levels..	Skill 1: Diagnosis of rheumatic diseases in patients (adults and children)	Skills: 1. Diagnostic skills of rheumatic pathology. 2. Skills in analyzing the results of laboratory diagnostic studies in pathological conditions of rheumatological profile. 3. Skills in analyzing the results of instrumental diagnostic methods for pathological conditions of rheumatological profile. 4. To assess the course of the rheumatological process in patients, taking into account the damage to individual organs and systems. helping children who have experienced gender-based violence.
		Knowledge: 1. Knowledge of epidemiology, etiology, pathogenesis, pathomorphology, diagnosis, clinical picture, possible complications in pathological conditions of rheumatological profile. 2. Knowledge of modern methods of diagnosis of rheumatological diseases. 3. Knowledge of the indications for the appointment of laboratory diagnostic tests for the diagnosis of pathological conditions of the rheumatological profile. 4. Knowledge of the indicators of laboratory diagnostic studies in pathological conditions of rheumatological profile. 5. Knowledge of the indications for instrumental examination methods for the diagnosis of pathological conditions of the rheumatological profile. 6. Knowledge of indicators of instrumental diagnostic methods for pathological conditions of rheumatological profile.
	Skill 2: Treatment of rheumatic diseases in	Skills: 1. Skills of reasonable choice of treatment method for patients with rheumatic diseases, taking into account the age, condition of the patient and the severity

	patients (adults and children)	of the pathological process, risks, as well as taking into account social factors. 2. Skills of conservative treatment of pathological conditions of rheumatological profile, choice of drug therapy, selection of dosage taking into account the patient's age, individual tolerance, severity of the pathological process, risks. 3. To treat pathological conditions of a rheumatological profile using invasive manipulations. Knowledge: 1. Knowledge of the principles, methods of therapy and tactics of management of patients (adults and children) with rheumatic pathology in outpatient and inpatient settings, taking into account the patient's age, individual tolerance, interaction with other drugs. 2. Knowledge of modern methods of treatment of rheumatological diseases in patients (adults and children), taking into account the age, condition of the patient and the severity of the pathological process, risks, as well as taking into account social factors. 3. Knowledge of conservative methods of treatment of pathological conditions of rheumatological profile in adults and children. 4. Knowledge of the methods of drug therapy selection, dosage, taking into account the patient's age, individual tolerance, severity of the pathological process, and risks. 5. Knowledge of methods of invasive therapy of pathological conditions of rheumatological profile in adults and children.
	Skill 3: Prevention and early rehabilitation of patients (adults, children) with rheumatological pathology.	Skills: 1. Skills in organizing preventive care for patients with rheumatic diseases. 2. Skills in preventing complications of rheumatic diseases. 3. Skills of dispensary supervision of patients with rheumatic diseases. 4. To organize early medical rehabilitation of patients with rheumatological diseases. 5. To organize social rehabilitation of rheumatological patients. Knowledge: 1. Knowledge of methods of prevention of rheumatic diseases. 2. Knowledge of methods of prevention of complications of rheumatic diseases. 3. Knowledge of the order of dispensary supervision, including for persons with disabilities with rheumatic diseases. 4. Knowledge of the basics of medical and

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		social rehabilitation of patients (adults and children) with rheumatological pathology.
	Skill 4: Provision of emergency medical care to patients (adults, children) with rheumatic diseases	Skills: 1. To recognize conditions that pose a threat to life, including clinical death (arrest of vital functions of the human body (blood circulation and/or respiration), requiring emergency medical care. 2. Assess the cause and severity of patients' condition and take necessary measures to bring patients out of this condition. 3. Perform cardiopulmonary resuscitation measures. 4. Provide emergency medical care in conditions that pose a threat to life, including clinical death (stopping vital functions of the human body (blood circulation and/or respiration). 5. Use medicines and medical devices when providing emergency medical care. 6. To evaluate the effectiveness and safety of the use of medicines and medical devices in the provision of emergency medical care. 7. To identify critical conditions in rheumatic diseases in conditions outside the medical organization. Knowledge: 1. Clinical signs of sudden cessation of blood circulation and (or) respiration. 2. Cardiopulmonary resuscitation 3. Methods for detecting critical conditions in patients outside the medical organization. 4. Methods of intensive therapy and resuscitation for rheumatic diseases in conditions outside a medical organization.
Labor function 2: Conducting medical examinations in relation to patients with rheumatic diseases	Skill 1: Disability examination	Skills: 1. Formulate medical conclusions based on the results of the medical examination. 2. Identify signs of temporary disability and signs of persistent dysfunction of the human body caused by rheumatic diseases and the need for care when issuing sick leave for sick family members. 3. Refer patients with rheumatic diseases for medical and social examination. 4. Prepare the necessary medical documentation for patients with rheumatic diseases to undergo a medical and social examination. 5. Issue a disability certificate for patients with rheumatic diseases. Knowledge: 1. Order of the Minister of Health of the Republic of Kazakhstan dated November 16, 2020 No. KR DSM-196/2020 "On approval of the Rules for

		issuing, Accounting and maintaining personal medical books" (registered with the Ministry of Justice of the Republic of Kazakhstan on November 18, 2020 No. 21652). 2. Registration of medical documentation for medical and social expertise. 3. Medical indications for referral of patients with persistent impairment of body functions caused by rheumatic diseases and their consequences for medical and social examination.
Labor function 3: Participation in the management of medical documentation, medical and statistical information	Skill 1: Maintaining medical records, analyzing medical and statistical information, in accordance with the requirements of regulatory legal acts in the field of	Skills: 1. Plan your work and compile a report analyzing your own performance indicators. 2. Keep medical records, including in electronic form, and monitor the quality of their management. 3. To analyze the medical and statistical indicators of the work of the specialized medical department. 4. Use patients' personal data and information in accordance with the law. 5. Use information systems in accordance with the established procedure. Knowledge: 1. Order of the Acting Minister of Health of the Republic of Kazakhstan dated October 30, 2020 No. KR DSM-175/2020 "On approval of Accounting Documentation forms in the field of healthcare, as well as instructions for completing them (registered with the Ministry of Justice of the Republic of Kazakhstan on November 4, 2020 No. 21579). 2. Order of the Minister of Health of the Republic of Kazakhstan dated December 22 2020 No. KR DSM-313/2020 "On approval of forms of accounting documentation in the field of healthcare" (registered with the Ministry of Justice of the Republic of Kazakhstan on December 23, 2020 No. 21879). 3. Order of the Minister of Health of the Republic of Kazakhstan dated December 10, 2020 No. KR DSM-244/2020 "On approval of the rules for maintaining primary medical records and submitting reports" (registered with the Ministry of Justice of the Republic of Kazakhstan on December 11, 2020 No. 21761). 4. Electronic accounting and documentation systems. 5. Confidentiality of patients' medical information. 6. Fundamentals of medical statistics.



Additional work function 1: Providing advisory assistance in the management of patients with rheumatic diseases at the outpatient and hospital levels	Skill 1: Provision of advisory services to patients (adults, children)	Skills: 1. The skills of organizing medical consultations, including with the invitation of specialists in related specialties and professions. 2. Skills in providing advisory services to patients) and/or their legal representatives on the choice of diagnostic methods, treatment tactics and prevention of rheumatic diseases. 3. Skills in providing advisory services to specialists in pre-medical care and nursing within the specialty "Rheumatology (adult, children's)" Knowledge: 1. Knowledge of the principles of ensuring continuity in the management of adolescent patients. 2. Knowledge of the management of patients (adults and children) with rheumatic diseases with concomitant pathology, complications and severe, complex course of the underlying rheumatoid process. 3. Knowledge of indications for referral of patients (adults and children) with rheumatic pathology for consultation with related specialists: nephrologists, ophthalmologists, dermatologists, neurologists. 4. Knowledge of indications for referral of patients (adults and children) with rheumatic pathology for consultation with related specialists. 5. Knowledge of the principles of ensuring continuity in the management of adolescent patients with rheumatic pathology and their transfer to an adult rheumatologist. 6. Knowledge of the basics of providing pre-medical and nursing care to patients (adults and children) with rheumatic pathology.
Additional labor function 2: Continuous professional development	Skill 1: Striving for professional improvement	Skills: 1. Participate in professional training events: conferences, seminars, webinars, advanced training courses. 2. Participate in academic and scientific activities. 3. Participate in the work of professional associations, committees, and working groups to discuss health issues and share experiences with colleagues. Knowledge: 1. Order of the Minister of Health of the Republic of Kazakhstan dated December 21, 2020 No. KR DSM-303/2020 "On Approval of the Rules for additional and non-formal education of healthcare Professionals, qualification requirements for organizations implementing educational programs for additional and non-formal education in the field of

		healthcare, as well as the rules for recognizing the learning outcomes obtained by healthcare professionals through additional and non-formal education (registered with the Ministry of Justice of the Republic of Kazakhstan on December 22, 2020, No. 21847). 2. Order of the Minister of Health of the Republic of Kazakhstan dated December 20, 2020 No. KR DSM-283/2020 "On approval of the rules for confirming the results of continuous professional development of healthcare workers" (registered with the Ministry of Justice of the Republic of Kazakhstan on December 22, 2020 No. 21843). 3. Opportunities for networking and communication with colleagues from their professional field. 4. Current trends, research and development in a specialized field.
Personal competence requirements:	Empathy Communication skills Tolerance and respect Collaboration and teamwork Stress resistance Reflection and introspection Compliance with professional ethics Openness and willingness to learn Activity and initiative Striving for professional development	

Head of the educational and methodological center

B.Z.Doltayeva

