# JSC "SOUTH-KAZAKHSTAN MEDICAL ACADEMY"





SOUTH KAZAKHSTAN MEDICAL ACADEMY

#### RESIDENCE EDUCATIONAL PROGRAM 7R01103 « ALLERGOLOGY AND IMMUNOLOGY (ADULTS AND CHILDREN) »

Shymkent 2024

OŃTÚSTIK-QAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ SKMA -1979- , , , , , , , , , , , , , , , , , , ,	инская академия»
Department of Microbiology, Virology and Immunology	044 - 50 /
Educational program " Allergology and immunology (adults, children) "	2 page of 11 pages

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The educational program of the residency "Allergology and Immunology (adult, children's)" was developed on the basis of the order of the Minister of Health of the Republic of Kazakhstan dated January 25, 2024 y  $N_{2}46$  "On approval of professional standards in the field of healthcare".

Job title	Full name.	Signature
Developed	all shows a particular state	
Teaching staff of the Department of Microbiology, Virology and Immunology		
Head of department , candidate of medical sciences, professor	Seytkhanova B.T.	als-
Representative of practical healthcare Chief freelance allergist of the Turkestan region	Ryskulova D. A.	phe
Resident EP "Allergology and Immunology (adult, children's)"	Bekbau A.	deef
Minutes of the meeting of the department No. <u>6</u> dated " <u>23</u> "" <u>Of</u> . "2024y	e a densita energia a las en officia interes	
Discussed at a meeting of the KOP residency	The second second second second	$D \leq$
COP Chairman	Kauyzbai Zh.A.	der
Protocol No. <u>5</u> from " <u>16</u> " <u>01</u> 2024y		
Agreed on the Clinical Council		
Chairman of the Clinical Council	Kauyzbai Zh.A.	40-
Protocol No. <u>}</u> dated " <u>L</u> 2024y		
Approved by the first vice-rector of JSC SKMAJSC SKMA First Vice-RectorProtocol № 30dated 9202204y	Esirkepov M.M.	M. M. S
Approved by the Academic Council		
Protocol No. <u>14</u> dated " <u>31</u> " 01 2024 y		

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## 1. Mission of the educational program

To be a recognized leader in the field of training competitive personnel, meeting the needs of resident doctors to achieve learning outcomes, providing the healthcare system and society with highly qualified allergists and immunologists.

#### 2. Aim of educational program

Training of a highly qualified allergist-immunologist, including a pediatric allergist, who has a system of universal professional competencies, capable of providing assistance to patients with allergic diseases and pathologies of the immune system, both at the level of primary health care and specialized medical care, in accordance with the principles of evidence-based medicine.

#### 3. Rationale for EP

The discipline "Allergology and Immunology" –is a science that studies the patterns of functioning of the immune system, the occurrence, development and outcome of immunopathological processes; features and nature of dynamic changes in the functions of the immune system in various pathological conditions of the body.

Immunology and allergology stand next to each other in medicine, as they are connected by the same tasks. Immunology and allergology studies the body's reactions to environmental influences. Only immunology more extensively studies diseases of the immune system, while allergology is a branch of immunology that studies inadequate reactions of the human immune system to substances coming from outside.

The main task of allergists and immunologists is the diagnosis and treatment of allergic diseases and pathological conditions of the human immune system. Prevention of diseases of the immune system and allergic conditions is also the responsibility of immunologists. The need for allergists and immunologists in the Republic of Kazakhstan at all levels of medical care is very high. Allergolo g-immunologist is an expert in the field of new methods of diagnosis and treatment of immunopathologies. Proper treatment and rehabilitation of patients with allergies and pathologies of the immune system reduces the level of disability in the population.

The need of medical organizations for allergists and immunologists is the rationale for the opening and training of specialists in this profile, primarily at the regional level, taking into account the main strategies and programs for the development of the healthcare system of the Republic of Kazakhstan.

## 4. Professional standard on the basis of which the educational program was developed

- Professional standard "Allergology and immunology"
- Standard for organizing the provision of allergy and immunological care in the Republic of Kazakhstan dated June 26, 2017 year № 446
- 5. Area of professional activity. Healthcare

## 6. Objects of professional activity.

Medical organizations providing outpatient and inpatient care, healthcare systems of the Republic of Kazakhstan.

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## General information

N⁰	Name fields	Note
1	Registration number	7R01100261
2	Code and classification of field of	7R01 Healthcare (medicine)
2	education	(Kor Heatheare (medicine)
3	Code and classification of areas of	7R011 Healthcare
	training	
4	Group of educational programs	7R01103 "Allergology and immunology (adults, children)"
5	Name educational programs	"Allergology and immunology (adults, children)"
	I C	
6	Type of EP	Updated
Ŭ		opullod
7	Level according to ISCED	7
8	Level according to ISCED	7
9	Level according to ORK	7
10	Distinctive features of EP	No
11	List of competencies	LC1 Communication and Collaboration: The ability to communicate and
	I I I I I I I I I I I I I I I I I I I	collaborate productively with the patient, his environment and medical staff
		in order to optimize the overall well-being of the patient and treatment
		results.
		LC2 Patient supervision: Able to independently formulate a clinical
		diagnosis for patients, prescribe a treatment plan for patients with allergic
		diseases and immunopathology in accordance with scientific concepts and
		achievements of world and domestic science in the field of allergology and
		immunology and clinical protocols of the Republic of Kazakhstan
		LC3 Safety and quality: Able to apply modern methods of using drugs,
		medical devices and nutritional therapy for allergic diseases and
		immunopathology in patients in accordance with the current procedure for
		the provision of medical care, clinical recommendations (diagnosis and
		treatment protocols).
		<b>LC4 Research:</b> Able to conduct and effectively use international databases
		in daily activities, organize and participate in research work and projects. <b>LC5 Training and development:</b> Able to learn independently and train
		other members of a professional team.
		<b>LC6 Public Health:</b> Able to apply knowledge in practice on the basics of
		organizing care within their specialization, the principles of rehabilitation
		of patients with allergic and (or) immunological diseases, and collaborate
		with interprofessional groups to develop policies that promote the health of
		the nation.
12	Learning outcomes	LO1 Communication and Collaboration: Able to formulate a clinical
		diagnosis, prescribe a treatment plan for patients with allergic and
		immunopathological diseases and evaluate its effectiveness based on
		evidence-based practice at all levels of medical care;
		LO2 Patient supervision: Able to effectively interact with the patient, his
		environment, and healthcare professionals in order to achieve the best
		results for the patient.

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		LO3 Safety and quality: Able to assess methods to ensure a high level of safety and LO4 Research: Able to formulate adequate critically evaluate specialized literature effectively use international databases is participate in the work of a research team. LO5 Training and development: Able to other members of a professional team, actic conferences and other forms of continuous p LO6 Public Health: Able to act withis framework of the healthcare system of the specialty "Allergology and Immunology", p in critical and emergency situations, work as	quality of care during therapy. e research goals and objectives, on allergy and immunology, in their daily activities, and e learn independently and teach ively participate in discussions, professional development. n the legal and organizational Republic of Kazakhstan in the provide basic and advanced care s part of interprofessional teams
12	<b>P</b> ( ) )	to implement policies to improve the health	of the nation.
13	Form training	Day time	
14	Language training	Kazakh and Russian	
15	Volume of credits	140 credits	
16	Training period	2 years	
17	Degree awarded	Allergist- immunologist for adults, child	ren
18	Availability of an annex to the license for the direction of personnel training	KZ22BFA00167288	
19	Availability accreditation of EP	Reaccreditation	
20	Name accreditation organ	IAAR	
21	Term actions accreditation	06/10/2022-06/09/2027	
22	Information about disciplines	VK/KV, DB, PD (Appendix 2)	

## Appendix 1.1.

# Matrix for correlating learning outcomes for the educational program as a whole with developing competencies

	LO 1	LO 2	LO3	LO 4	LO5	LO 6
LC1	+	+	+			
LC2		+		+		
LC3			+		+	
LC4				+		
LC5					+	
LC6						+

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# Appendix 1.2.

# Competency/learning outcome attainability matrix

Nº	Name of the discipline	Brief description of the discipline	Cycle	Compo nent	Amount of credits	Formed LO (codes)
1	Clinical immunology and allergology outpatient, children's	Organization of outpatient pediatric allergy service in the Republic of Kazakhstan. Age-related changes in the immune system in children. Features of the fetal immune system. Immunopathology in various childhood diseases. Epidemiology, etiology, pathogenesis, clinic of allergic and immunological diseases in children.	PD	MC	34	LO1, LO2, LO4
2	Clinical immunology and allergology on an outpatient basis,adult	Principles and levels of organization of allergy services. Algorithm for diagnosis and management of patients with allergies . Definition and tasks of clinical immunology. Immunoecology . Immunodeficiencies. Autoimmune disorders. Immunopathology in various diseases. Principles, methods and methodology of the survey. Protocols for the diagnosis and treatment of patients with allergic diseases and diseases of the immune system. Diagnosis and treatment of emergency allergic and immunological conditions.	PD	MC	34	LO1, LO2, LO4
3	Clinical immunology and allergology in a hospital, adults	Specialized and highly specialized care for children with allergic and immunological diseases. Modern ideas about allergic diseases of the respiratory tract, gastrointestinal tract, skin; indications	PD	MC	33	LO3, LO5, LO6

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ACADEMY

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4	Clinical immunology	contraindicationstononspecifictechniques;principles of immunotherapyfor immunodeficiency states,laboratorymethodsdiagnosing immunity.Current issuesin pediatric	PD	MC	33	L03,
4	and allergology in hospital, children's	immunology and allergology. Differential diagnosis of allergic diseases in children. Principles of diagnosing allergic diseases in children. Modern methods of treating allergic diseases. Immunization and prevention of post-vaccination complications. Protocol for the diagnosis and treatment of allergic diseases and diseases of the immune system in children.		мс		LO3, LO5, LO6
5	Differential diagnosis of allergic dermatoses	The discipline develops knowledge in the clinical pharmacology of drugs, medical clinical and pharmacological thinking skills in substantiating and conducting rational pharmacotherapy using data from evidence-based medicine, in the proper use of clinical guidelines based on a personalized approach to the selection of drugs and their doses, taking into account the pathological and physiological profile of the patient	PD	OC	2	L01, L02, L06
6	Innovations in allergology. Molecular allergology	The discipline develops knowledge on molecular allergy diagnostics, methods of molecular component allergic diagnostics that increase the accuracy of diagnosis, the development of recombinant allergens for accurate diagnosis and effective allergy vaccination using the method of allergen-	PD	OC	2	LO1, LO6

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		specific immunotherapy (ASIT), which allows you to increase the sensitivity of the method several times compared to other methods and will provide the opportunity towards more precise allergen-specific immunotherapy				
7	Clinical pharmacology in allergology and immunology	The discipline develops knowledge in the clinical pharmacology of drugs, medical clinical and pharmacological thinking skills in substantiating and conducting rational pharmacotherapy using data from evidence-based medicine, in the proper use of clinical guidelines based on a personalized approach to the selection of drugs and their doses, taking into account the pathological profile of the patient	PD	OC	2	LO3, LO5,
8	Modern aspects of diagnosis and treatment of allergic diseases	Programs and algorithm for laboratory diagnostics, differential diagnosis and modern therapy of allergic diseases. Immunological research methods and their significance in the diagnosis of allergic diseases. Modern immunological analyzers and equipment. Quality management of laboratory immunological studies. Modern pharmacotherapy of allergic diseases according to treatment protocols.	PD	OC	2	LO1, LO3, LO6
9	Transplant immunology	The discipline develops knowledge about transplantation immunity, immune mechanisms of transplant rejection ; HLA	PD	OC	2	LO4, LO5, LO6

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	system and modern methods of HLA typing; concepts of immunological tolerance , and effective methods for managing the immune response during transplantation, which can completely prevent transplant rejection .		

## Matrix for achieving LO using various teaching methods

LO			Ν	Methods lear	ning and te	eaching	-	
(codes)	Participation in rounds	Maintaining medical records	P S - Examination of the patient	Performing/participating in clinical work	Standardized patient	Writing abstracts	Participation in conferences (seminars, olympiads)	Public performance
LO1	+	+	+	+	+			
LO2	+		+	+	+			
LO3		+	+	+				
LO4	+			+	+			
LO5						+	+	+
LO6							+	+

## Matrix of compliance of LO with assessment methods

LO		-	-	-		Methods assessme	nts	-	-	-
(codes)	Verbalresponse	Testing	Essay	Patient examination demonstration	DOPS - assessment of mastery of practical	Analysis of records in the medical history and outpatient card (diagnosticprocedures, prescribedtherapy)	Standardized patient	360° score	Abstract\presentations Publications	Portfolio Clinical records Self-esteem
LO1	+	+		+	+	+	+	+		
LO2				+	+	+	+	+		
LO3				+	+	+	+			
LO4					+	+	+			
LO5	+		+						+	+
LO6	+			+					+	+

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# Work plan for the entire period of study

		Name of				R	[C	v		lc	
Cycleofdiscipl ines	Discipline code	disciplines/modules of the second sec		General hours	Classroom	СРРН	RTIC	1 yearofstudy	2nd year of	The formofcontrol	FE
PD		rofiling disciplines	138	4140							
	-	atorycomponent	134	4020							
	R-CIAOA	Clinical immunology and allergology on an outpatient basis outpatient, adult	34	1020	204	663	153	34		Exa m	
PD MC	R-CIAOC	Clinical immunology and allergology on an outpatient basis outpatient, children's	34	1020	204	663	153	34		Exa m	
	R-CIAHA	Clinical immunology and allergology in a hospital, adults	33	990	198	643	149		33	Exa m	
	R-CIAHC	Clinical immunology and allergology in hospital, children's	33	990	198	643	149		33	Exa m	
HF		onent of choice	4	120	24	78	18	2	2		
	MADTAD	Modern aspects of diagnosis and treatment of allergic diseases									
	R-IAMA		2	60	12	39	9	2		Exa m	
		A	Molecular allergology	Molecular allergology2ADifferential diagnosis	Molecular allergology260ADifferential diagnosis2	Molecular allergology26012ADifferential diagnosis26012	Molecular allergology2601239ADifferential diagnosis </td <td>Molecular allergology26012399ADifferential diagnosis<!--</td--><td>Molecular allergology260123992ADifferential diagnosis<!--</td--><td>Molecular allergology260123992ADifferential diagnosis<!--</td--><td>Molecular allergology260123992Exa mADifferential diagnosis</td></td></td></td>	Molecular allergology26012399ADifferential diagnosis </td <td>Molecular allergology260123992ADifferential diagnosis<!--</td--><td>Molecular allergology260123992ADifferential diagnosis<!--</td--><td>Molecular allergology260123992Exa mADifferential diagnosis</td></td></td>	Molecular allergology260123992ADifferential diagnosis </td <td>Molecular allergology260123992ADifferential diagnosis<!--</td--><td>Molecular allergology260123992Exa mADifferential diagnosis</td></td>	Molecular allergology260123992ADifferential diagnosis </td <td>Molecular allergology260123992Exa mADifferential diagnosis</td>	Molecular allergology260123992Exa mADifferential diagnosis

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	<b>R - CPAI</b> Clinical pharmacology in allergology and			2	60	12	39	9		2	Exa m	
		allergology and immunology										
	R - TI Transplant immunology			1.00		0.00						
PA	TOTAL INTERMEDIATE CERTIFICATION			138	4140	828	2691	621				
IA	FINAL EXAMINATION			2	60					2		60
	TOTAL				4200	828	2691	621	70	70		60