

«SOUTH KAZAKHSTAN MEDICAL ACADEMY»




SOUTH KAZAKHSTAN
**MEDICAL
ACADEMY**




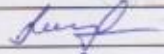
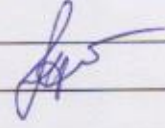

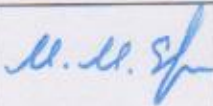
EDUCATIONAL RESIDENCY PROGRAM


7R01101

CARDIOLOGY (ADULT, CHILDREN)

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA АКАДЕМИЯСЫ «Оңтүстік Қазақстан медицина академиясы» АҚ	 SKMA -1979-	SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Department «Therapy and cardiology»		044-51/05
Educational residency program 7R01101 Cardiology (adult, children)		2 of 11

The educational residency program 7R01101 Cardiology (adult, children) was developed on the basis of the 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»

Position	Full name	Signature
Developed by		
Teaching staff of the Department of Therapy and cardiology		
Head of the Department, MD, assistant professor	Assanova G.K.	
c.m.s., assistant professor	Kushekbayeva A.E.	
assistant, Master of Health		
Representative of practical healthcare chief medical officer of clinics «CardioMed»	Bolatbekov B.A.	
Protocol No. <u>17</u> of " <u>26</u> " of <u>01</u> 2024	Serikbayeva M.T.	
Discussed at the meeting of the Residency CEP		
Chairman of the CEP	Kauyzbai Zh.A.	
Protocol no. <u>5</u> from <u>26. 01.</u> 2024		
Approved by the Clinical Council Chairman of the Clinical Council	Kauyzbai Zh.A.	
Protocol		
No. <u>8</u> from " <u>28</u> " " <u>01</u> " 2024		
Approved by the First Vice-Rector	Yesirkepov M.M.	
The first vice-rector		
<u>30. 01</u> 2024		
Approved by the Academic Council		
Protocol no. <u>14</u> from <u>31. 01</u> 2024		

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Department «Therapy and cardiology» Educational residency program 7R01101 Cardiology (adult, children)		044-51/5 3 of 11

Passport of the educational program

1. The mission of the educational program Training of competitive personnel in the field of cardiology with a high level of professionalism to meet the needs of the national and regional health care system, demonstrating continuity in continuous professional development and social responsibility for contributing to the development of medicine.

2. The purpose of the educational program Training of a qualified cardiologist who has a system of universal, professional competencies, capable and ready for independent professional activity in primary health care, emergency , as well as specialized, including the use of high-tech medical services

3. Justification of the educational program

Cardiology is a medical science dealing with the prevention, detection, and treatment of heart diseases and the circulatory system in general. A cardiologist– a doctor specializing in this field, is also engaged in restoring the work of the heart, which is disrupted by diseases of other internal organs. The task of the specialist is to detect and eliminate risk factors for cardiovascular pathologies in time, prevent their occurrence, select the necessary treatment and monitor the condition of patients, carry out rehabilitation of cardiological and cardiac surgical patients.


At the national level, the issues of cardiology in the healthcare system are reflected in the main regulatory documents: On the approval of the standard for the organization of cardiological, interventional cardiological, interventional arrhythmological and cardiac surgical care in the Republic of Kazakhstan. Order of the Acting Minister of Health of the Republic of Kazakhstan dated December 31, 2021 No. KR DSM-139. Registered with the Ministry of Justice of the Republic of Kazakhstan

4. Professional standard, on the basis of which the educational program was developed • Professional standard " Cardiology (adult, children's) " (project) •

On approval of the standard for the organization of cardiological, interventional cardiological, interventional arrhythmological and cardiac surgical care in the Republic of Kazakhstan. Order of the Acting Minister of Health of the Republic of Kazakhstan dated December 31, 2021 No. KR DSM-139. Registered with the Ministry of Justice of the Republic of Kazakhstan on January 6, 2022 No. 26401.

5. Field of professional activity. Healthcare

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

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Department «Therapy and cardiology»		044-51/5
Educational residency program 7R01101 Cardiology (adult, children)		4 of 11

General information

№	Characteristics of the EP	Data
1	Registration number	7R09100114
2	Code and classification of training areas	7R01 Healthcare (medicine)
3	The code and classification of training areas	7R011 Healthcare
4	Group of educational programs	R001 Cardiology (adult, children)
5	Code, name of the educational program	7R01101 Cardiology (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	No
	Partner -University (JEP)	
	Partner -University (DEP)	
11	List of competencies	<p>CC1.Patient supervision: formulate a clinical diagnosis, prescribe a treatment plan and evaluate its effectiveness based on evidence-based practice in conducting highly specialized cardiological care.</p> <p>CC 2.Communication and collaboration: interact effectively with the cardiological patient, his environment, and healthcare professionals in order to achieve the best results for the patient</p> <p>CC 3.Professionalism:assess risks and use the most effective methods to ensure a high level of safety and quality of highly specialized cardiological care.</p> <p>CC 4.Public health: to act within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan in their specialty, to provide basic cardiological care in emergency situations, to work as part of interprofessional teams to implement the policy of strengthening the health of the nation</p> <p>CC 5.Research: formulate adequate research questions, critically evaluate professional literature, effectively use international databases in their daily activities, participate in the work of the research team</p> <p>CC 6. Training and development: to study independently and train other members of a professional team, actively participate in discussions, conferences and other forms of continuous professional development.</p>
12	Learning outcomes	LO1: formulate a clinical diagnosis, prescribe a treatment plan and evaluate its effectiveness



		<p>based on evidence-based practice in conducting highly specialized cardiological care.</p> <p>LO2: communicate effectively with the cardiac patient, their environment, healthcare professionals in order to achieve the best results for the patient</p> <p>LO3: assess risks and use the most effective methods to ensure a high level of safety and quality in highly specialized cardiac care.</p> <p>LO4: act within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan in their specialty, provide basic cardiological care in emergencies, work as part of interprofessional teams to implement the policy of promoting the health of the nation</p> <p>LO5: formulate adequate research questions, critically evaluate professional literature, effectively use international databases in their daily activities, participate in the work of the research team</p> <p>LO6: learn independently and train other members of the professional team, actively participate in discussions, conferences and other forms of continuous professional development.</p>
13	Form of training	Full - time If necessary with the use of digital technologies
14	Language of training	Kazakh and Russian
15	Volume of loans	210
16	The term of study	3 years
17	Assigned qualification	Doctor-cardiologist adults, children
18	Availability of an appendix to the license for the direction of training	KZ22BFA00167288
19	Existence of EP accreditation	+
	Name of accreditation body	IAAR
	Accreditation period	№ KZ73LAA00011788 10.06.2022-09.06.2027Ys.
20	Information about the disciplines	Appendix 1.2

Appendix 1.1

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
CC1	+	+	+			



CC2		+		+		
CC3			+		+	
CC4				+		
CC5					+	
CC6						+

Appendix 1.2

Matrix of achievable competencies/learning outcomes

№	The name of the disciplin	Short description	Cycle	Component	Number of credits	Formed LO
1	Non-invasive cardiovascular imaging	Standards for the scope of examination of ultrasound diagnostics in cardiology. Ultrasound methods for studying cardiovascular system (EchoCG, stress-EchoCG, transesophageal echocardiography), classification, basics of obtaining information and methods of implementation (implementation) of methods, indications. Clinical protocols, recommendations of the Republic of Kazakhstan and International medical communities in the field of cardiology.	PD	MC	32	LO2 LO5 LO6
2	Electrophysiology of the heart	Standards for the scope of examination of functional diagnostics in cardiology. ECG, daily monitoring of ECG and blood pressure, bicycle ergometry, rheography (tetrapolar, bipolar), test with transesophageal atrial stimulation, pharmacological tests.	PD	MC	20	LO2 LO5 LO6
3	Cardiology in the hospital	Organization of the work of cardiological care for children. Diseases of the heart and blood vessels in children: diagnosis, differential diagnosis, treatment, prevention of typical and rare, difficult-to-diagnose diseases by sections. Evidence-based medicine.	PD	MC	80	LO1 LO2 LO5



4	Outpatient clinic cardiology	Organization of the work of cardiological care to the population. Diseases of the heart and blood vessels: diagnosis, differential diagnosis, treatment, prevention of typical and rare, difficult-to-diagnose diseases by sections. Evidence-based medicine. Clinical protocols of the Ministry of Health of the Republic of Kazakhstan on nosologies.	PD	MC	32	LO1 LO2 LO5
5	Intensive cardiology	Work in the ICU, intensive care unit. Principles of cardiopulmonary resuscitation in children. Optimal use of laboratory and instrumental research methods in emergency cardiology practice in children. In practical activities, be guided by regulatory legal acts on OR&IT and use recommendations and algorithms of actions for a specific nosology.	PD	MC	22	LO3 LO4
6	Interventional cardiology	Organization of interventional cardiology service in Kazakhstan. Clinic, diagnostics, indications for planned and emergency interventional cardiac care (CAG, TLBAP, stenting, RFA, use of an occluder). Volumes, standards for the provision of interventions, prevention of complications. Clinical protocols of the Ministry of Health of the Republic of Kazakhstan.	PD	MC	14	LO2 LO3
1	Rehabilitation of cardiological and cardiosurgical patients	Assessment of the patient's clinical condition; optimization of pharmacological treatment; physical rehabilitation - a stepwise and controlled increase in physical activity, adapted to the individual capabilities of a person; diagnosis and control of the so-called "risk factors" for the development of coronary artery disease;	PD	OC	4	LO2 LO3

		lifestyle change.				
2	Sports cardiology	Medico-biological selection and admission to practicing a particular sport in accordance with the genetic and phenotypic capabilities of the individual. Ensuring the growth of fitness, (increasing special performance) using physiologically justified effects on the body.	PD	OC	8	LO3 LO6

The matrix of achievement of LO by various teaching methods and assessment methods

LO	Methods used Teaching and learning	
LO1: Patient care :formulatea clinical diagnosis, prescribe a treatment plan, and evaluate its effectiveness based on evidence-based practice in highly specialized cardiac care.	Analysis of the material, feedback from the resident	Modeling situations and maintaining medical records
LO2: Communication and collaboration: communicate effectively with the cardiac patient, their environment, healthcare professionals in order to achieve the best results for the patient	A reflective diary	Maintaining medical records
LO3: Professionalism: assess risks and use the most effective methods to ensure a high level of safety and quality in highly specialized cardiac care.	Supervision of clinical work	
LO4: Public health: act within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan in their specialty, provide basic cardiological care in emergencies, work as part of interprofessional teams to implement the policy of promoting the health of the nation	Supervision of clinical work	Maintaining medical records
LO5: Research: formulate adequate research questions, critically evaluate professional literature, effectively use international databases in their daily activities, participate in the work of the research team	"Journal Club"	Writing abstracts, articles Public appearances
LO6: Training and Development : learn independently and train other members of the professional team,	Observation	



actively participate in discussions, conferences and other forms of continuous professional development.

The matrix of compliance with LO assessment methods

LO	Methods used Teaching and learning	
LO1: Patient care :formulatea clinical diagnosis, prescribe a treatment plan, and evaluate its effectiveness based on evidence-based practice in highly specialized cardiac care.	Testing Oral interview Essay (short and long) The short answer	Analysis of the material, feedback from the resident Modeling of situations Maintaining medical records
LO2: Communication and collaboration: communicate effectively with the cardiac patient, their environment, healthcare professionals in order to achieve the best results for the patient	OSCE (with Skill Check stations) Mini Clinical Exam Long-term Case	A reflective diary
LO3: Professionalism: assess risks and use the most effective methods to ensure a high level of safety and quality in highly specialized cardiac care.	Analysis of records in the medical history Analysis of doctor's activity records Analysis of prescriptions	Supervision of clinical work
LO4: Public health: act within the legal and organizational framework of the healthcare system of the Republic of Kazakhstan in their specialty, provide basic cardiological care in emergencies, work as part of interprofessional teams to implement the policy of promoting the health of the nation	Standardized patients Patient reviews Reviews from other students Score 3600	Standardized patients Video recordings (discussion, evaluation) Observation of clinical work Development of a draft drug form Maintaining medical records
LO5: Research: formulate adequate research questions, critically evaluate professional literature, effectively use international databases in their daily activities, participate in the work of the research team	Abstract/presentation of the Publication	"Journal Club" Writing abstracts, articles Public appearances
LO6: Training and Development : learn independently and train other members of the professional team, actively participate in discussions, conferences and other forms of continuous professional development.	Portfolio Clinical records Self-assessment	Observation

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Department «Therapy and cardiology»

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044-51/5

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		Sports Cardiology									
	TOTAL	208	6240	1248	4368	624*					
IC	INTERMEDIATE CERTIFICATION										
FE	FINAL EXAMINATION	2	60						2		60
	TOTAL	210	6300	1248	4368	624	70	70	70		60