JSC "SOUTH KAZAKHSTAN MEDICAL ACADEMY"

"APPROVED"

Rector/of SKMA, Professor

M. Rysbekov

2024 Y.



SOUTH KAZAKHSTAN

MEDICAL ACADEMY

EDUCATIONAL RESIDENCY PROGRAM
7R01105
HEMATOLOGY (ADULTS)

ontústik-qazaqstan	SKMA	SOUTH KAZAKHSTAN MEDICAL	
MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ	-1979-	АСАДЕМУ АО «Южно-Казахстанская и	иедицинская академия
Thera		cardiology	044-51/11
Educational residency program 7R0	01105 h	ematology (adults)	2 of 13

The educational program of the residency 7R01105 Hematology (adult) 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".

n 11	Full name	Signature
Position	run name	8
Developed by		
Teaching staff of the Department of Therapy and cardiology		
Head of the Department, MD, assistant professor	Assanova G.K.	Ja
Representative of practical health care GB 2, hematologist	Khaida laeva B. Ch	EATO MAHAP AN
Representative of practical health care, head of department of gastroenterology, GB 2	Raffeya Zh.M	A CANADA A C
Protocol no. 7 from 26 01 2024	A de la latassam	BPAY
Discussed at the meeting of the Residency CEP	THE THOUSE	
Chairman of the CEP	Kauyzbai Zh. A	A CONTRACTOR OF THE CONTRACTOR
Protocol no. 5 from 26. 01 202 4		V
Approved by the Clinical Council Chairman of the Clinical Council Protocol No. 8 from "28" " 01 " 2024	Kauyzbai Zh.A.	
Approved by the First Vice-Rector The first vice-rector "30" "	Yesirkepov M.M.	M. M. Sf-
Approved by the Academic Council		
Protocol no. 14 from 31. 01 202 4		

Therapy and cardiology 044-51/11	ONTÜSTIK-QAZAQSTAN MEDISINA AKADEMIASY «Онтүстік Қазақстан медицина академиясы» АҚ	SKMA -1979 -	SOUTH KAZAKHSTAN MEDICAL ACADEMY AO «Южно-Казахстанская	медицинская академия:
	Thera	py and		044-51/11 3 of 13

Passport of the educational

1. The mission of the educational program is to training competitive personnel, achieving learning outcomes to provide the health care system and society with highly qualified hematologists.

Duration of study: 2 years.

Qualification awarded upon completion of study - doctor-hematologist adults...

2. The purpose of the educational program Training of a hematologist who has professional abilities and independently provides specialized, highly qualified medical care to patients with diseases of the blood system.

3. Justification of the OP

Hematology is a field of medical science that studies blood and blood diseases – changes in the number of blood cells and changes in function, bone marrow disorders, blood clotting disorders. The purpose of studying hematology is to train residents to differentiate blood and bone marrow cells by morphological and other signs in normal and pathological conditions, to provide knowledge about the causes and mechanisms of development of diseases of the blood system, to teach methods of laboratory examination of blood and bone marrow, diagnosis of hematological diseases. The need for hematologists in the Republic of Kazakhstan at all levels of medical care is very high.

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

4. The professional standard on the basis of which the educational program has been developed

professional standard "hematology (adult)" (draft)

Standard for the organization of medical care in hematology in the Republic of Kazakhstan Order of the Acting Minister of Health of the Republic of Kazakhstan dated December 20, 2021 No. KR DSM-130. Registered with the Ministry of Justice of the Republic of Kazakhstan on December 22, 2021 No. 25880

5. The field of professional activity. Healthcare

6. Objects of professional activity.

- Health management organizations;
- healthcare organizations;
- educational organizations;
- organization of science;
- social protection organizations

Types of professional activity

- -therapeutic, preventive and diagnostic
- --organizational and managerial
- -scientific research

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Therapy and cardiology 044-51/11
Educational residency program 7R01105 hematology (adults) 4 of 13

Information about educational program

Registration number	N₂	Field name	Note
Code and classification of the field of education		Registration number	7R01100266
R005 Hematology adults Names of educational program R001105 Hematology adults Type of EP Level of MSKO Level of MSKO Level of ORK Distinctive features of the EP List of competencies List of competencies List of competencies List of competencies I. Public Health: able to act within the legal organizational framework of the health system the Republic of Kazakhstan in the specialty "Hematology (adult)", to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement the policy of strengthening the health of the nation 2. Safety and Quality: able to assess risks an use the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to ensure a highevel of safety and quality of hematological carries are the most effective methods to e	2	Code and classification of the field of	7R01 Healthcare (medicine)
R005 Hematology adults Names of educational program 7R01105 Hematology adults Type of EP Updated EP Level of MSKO Rulevel of NRK Distinctive features of the EP List of competencies 1. Public Health: able to act within the legal organizational framework of the health system the Republic of Kazakhstan in the specialty "Hematology (adult)", to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement to policy of strengthening the health of the nation 2. Safety and Quality: able to assess risks an use the most effective methods to ensure a hig level of safety and quality of hematological cas. Training and Development: able to train independently and train other members of a professional team, actively participate in discussions, conferences, and other forms of continuous professional development. Research: he is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, a participate in the work of the research team. S. Patient supervision: able to formulate a clinical diagnosis, prescribe a treatment plan, evaluate its effectiveness based on evidence-	3	Code and classification of training areas	7R011 Healthcare
6 Type of EP 7 Level of MSKO 7 8 Level of NRK 7 9 Level of ORK 7 10 Distinctive features of the EP No 1. Public Health: able to act within the legal organizational framework of the health system the Republic of Kazakhstan in the specialty "Hematology (adult)", to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement the policy of strengthening the health of the nation 2. Safety and Quality: able to assess risks and use the most effective methods to ensure a high level of safety and quality of hematological carries and the professional team, actively participate in discussions, conferences, and other forms of continuous professional development. 4. Research: he is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, a participate in the work of the research team. 5. Patient supervision: able to formulate a clinical diagnosis, prescribe a treatment plan, evaluate its effectiveness based on evidence-	4		R005 Hematology adults
6 Type of EP 7 Level of MSKO 7 8 Level of NRK 7 9 Level of ORK 7 10 Distinctive features of the EP No 1. Public Health: able to act within the legal organizational framework of the health system the Republic of Kazakhstan in the specialty "Hematology (adult)", to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement the policy of strengthening the health of the nation 2. Safety and Quality: able to assess risks and use the most effective methods to ensure a high level of safety and quality of hematological carries and the professional team, actively participate in discussions, conferences, and other forms of continuous professional development. 4. Research: he is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, a participate in the work of the research team. 5. Patient supervision: able to formulate a clinical diagnosis, prescribe a treatment plan, evaluate its effectiveness based on evidence-	5	Names of educational program	7R01105 Hematology adults
8 Level of NRK 9 Level of ORK 7 10 Distinctive features of the EP No 11 List of competencies 1. Public Health: able to act within the legal organizational framework of the health system the Republic of Kazakhstan in the specialty "Hematology (adult)", to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement to policy of strengthening the health of the nation 2. Safety and Quality: able to assess risks and use the most effective methods to ensure a hig level of safety and quality of hematological ca 3. Training and Development: able to train independently and train other members of a professional team, actively participate in discussions, conferences, and other forms of continuous professional development. 4. Research: he is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, a participate in the work of the research team. 5. Patient supervision: able to formulate a clinical diagnosis, prescribe a treatment plan, evaluate its effectiveness based on evidence-	6		
Distinctive features of the EP No 1. Public Health: able to act within the legal organizational framework of the health system the Republic of Kazakhstan in the specialty "Hematology (adult)", to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement the policy of strengthening the health of the nation 2. Safety and Quality: able to assess risks and use the most effective methods to ensure a higher level of safety and quality of hematological cars. Training and Development: able to train independently and train other members of a professional team, actively participate in discussions, conferences, and other forms of continuous professional development. Research: he is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, a participate in the work of the research team. Patient supervision: able to formulate a clinical diagnosis, prescribe a treatment plan, evaluate its effectiveness based on evidence-	7	Level of MSKO	7
10 Distinctive features of the EP 11 List of competencies 1. Public Health: able to act within the legal organizational framework of the health system the Republic of Kazakhstan in the specialty "Hematology (adult)", to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement the policy of strengthening the health of the nation 2. Safety and Quality: able to assess risks and use the most effective methods to ensure a high level of safety and quality of hematological cars. Training and Development: able to train independently and train other members of a professional team, actively participate in discussions, conferences, and other forms of continuous professional development. 4. Research: he is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, a participate in the work of the research team. 5. Patient supervision: able to formulate a clinical diagnosis, prescribe a treatment plan, evaluate its effectiveness based on evidence-	8	Level of NRK	7
1. Public Health: able to act within the legal organizational framework of the health system the Republic of Kazakhstan in the specialty "Hematology (adult)", to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement to policy of strengthening the health of the nation 2. Safety and Quality: able to assess risks and use the most effective methods to ensure a hig level of safety and quality of hematological cars. Training and Development: able to train independently and train other members of a professional team, actively participate in discussions, conferences, and other forms of continuous professional development. 4. Research: he is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, a participate in the work of the research team. 5. Patient supervision: able to formulate a clinical diagnosis, prescribe a treatment plan, evaluate its effectiveness based on evidence-	9	Level of ORK	7
1. Public Health: able to act within the legal organizational framework of the health system the Republic of Kazakhstan in the specialty "Hematology (adult)", to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement to policy of strengthening the health of the nation 2. Safety and Quality: able to assess risks and use the most effective methods to ensure a hig level of safety and quality of hematological cars. Training and Development: able to train independently and train other members of a professional team, actively participate in discussions, conferences, and other forms of continuous professional development. 4. Research: he is able to formulate adequate research questions, critically evaluate professional literature, effectively use international databases in his daily activities, a participate in the work of the research team. 5. Patient supervision: able to formulate a clinical diagnosis, prescribe a treatment plan, evaluate its effectiveness based on evidence-	10	Distinctive features of the EP	No
patients with blood and hematopoietic disease 6. Communication and Collaboration: it is able to effectively interact with the patient, his environment, and healthcare professionals in order to achieve the best results for the patient			organizational framework of the health system of the Republic of Kazakhstan in the specialty "Hematology (adult)", to provide basic assistance in emergency situations, to work as part of interprofessional teams to implement the policy of strengthening the health of the nation 2. Safety and Quality: able to assess risks and use the most effective methods to ensure a high level of safety and quality of hematological care. 3. Training and Development: able to train independently and train other members of a professional team, actively participate in discussions, conferences, and other forms of continuous professional development. 4. Research: 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 the research team. 5. Patient supervision: 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 for patients with blood and hematopoietic diseases. 6. Communication and Collaboration: it is able to effectively interact with the patient, his

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AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ ACADEMY АО «Южно-Казахстанская медицинская академия»

Therapy and cardiology

044-51/11 5 of 13

Educational residency program 7R01105 hematology (adults)

		prescribe a treatment plan and evaluate its effectiveness based on evidence-based practice at all levels of medical care LO2: able to effectively interact with the patient, his environment, healthcare professionals in order to achieve the best results for the patient LO3: able to assess risks and use the most effective methods to ensure a high level of safety and quality of medical care LO4: 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, work as part of interprofessional teams to implement the policy of strengthening the health of the nation LO5: he is able to formulate adequate research questions, critically evaluate professional literature, and effectively use international databases in team activities.
		LO6: 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.
13	Form of training	Full - time
14	Language of training	Kazakh and Russian
15	Volume of loans	Total 140
16	Assigned qualification	Doctor -Hematologist adults
17	Availability of an appendix to the license for the direction of training	KZ 22BFA00167288
18	Existence of EP accreditation	+
	Name of accreditation body	IAAR
	Accreditation period	10.06.2022-09.06.2027Ys.
19	Information about the disciplines	Appendix 1.2

ONTÚSTIK-QAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ	SKMA -1971-	SOUTH KAZAKHSTAN MEDICAL ACADEMY AO «Южно-Казахстанская	медицинская академия»
Thera	py and	cardiology	044-51/11
Educational residency program 7R01105 hematology (adults)			6 of 13

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	LO 6
C1	+	+	+			
C2		+		+		
C3			+	111111111	+	
C4				+		
C5			9116390		+	
C6						+

Appendix 1.2 The matrix of achievability of competencies/learning outcomes

№	The name of the disciplin	Short description	Cycle	Component	Number of credits	Formed LO
1	Outpatient hematology	The structure, principles of organization and content of the hematology office of the polyclinic. Medical and social examination of patients with diseases of the blood system. The concept of socially significant diseases. Principles of their early diagnosis. Stationary replacement technologies. Tactics in the primary diagnosis of a tumor disease of the blood system, hemorrhagic diathesis. Indications for hospitalization. Management of patients after allogeneic bone marrow transplantation at the outpatient stage.	PD	UC	52	LO1 LO2 LO3
2	Hematology in the hospital	Clinical symptoms, classification, differential	PD	UC	82	LO1 LO4

ONTÚSTIK-QAZAQSTAN MEDISINA

SKMA -1977-...l/,

AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ

SOUTH KAZAKHSTAN MEDICAL ACADEMY AO «Южно-Казахстанская медицинская академия»

Therapy and cardiology

044-51/11

Educational residency program 7R01105 hematology (adults)

7 of 13

		diagnosis of blood diseases. Clinical and laboratory research methods. Modern pharmacotherapy of blood diseases in accordance with the protocols of the Republic of Kazakhstan, international databases, the effectiveness of treatment. Determination of indications for polychemotherapy, cytotoxic drugs, bone marrow transplantation. Principles and methodology of bone marrow and hematopoietic cell transplantation. Complications of bone marrow and			
3	Emergency hematology at the prehospital and hospital stages	hematopoietic cell transplantation. Emergency conditions in hematology at the prehospital and hospital levels: diagnostics, resuscitation measures. Emergency care for infectious and toxic shock, acute massive blood loss, DIC syndrome, thromboembolism, acute hemolysis, posttransfusion reactions, acute cardiovascular insufficiency, liver failure, renal failure and other urgent conditions.tumors of the heart. Differential	PD	OC	LO1 LO3 LO4

		diagnosis of cardialgia, cardiomegaly, heart murmurs, edematous ascitic syndrome, tachyarrhythmias, syncope, shortness of breath, cyanosis. Principles of evidence-based medicine, articles, analysis of the choice of research methods and therapeutic tactics.			4	
4	Antitumor agents and immunosuppressants in hematology	Cytostatic drugs used in patients with hemoblastosis. Complications of cytostatic therapy. Tactics and methods of monitoring patients receiving cytostatics, treatment of complications. Glucocorticosteroid hormones in the treatment of hematological patients. The tactics of the use and withdrawal of hormones. Targeted drugs in hematology.	PD	OC		LO3 LO5
5	Clinical Transfusiology	General principles of transfusion therapy in the pathology of the blood system. Component therapy. Lymphocyte and leukocytopheresis. Plasmapheresis. Thrombocytopheresis. Selective plasmapheresis. Preparation of	PD	OC	4	LO3 LO4

autofibronectin and		
its use in the		
treatment of trophic	6 4 DO 100	
lesions of the skin.		
Selective		
lymphopheresis	way In the second	
during external		
drainage of the	of the said of	
lymphatic duct.		

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

LO	Methods u	sed 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	Supervision of clinical work	Maintaining medical records

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

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	Standardized patients Patient reviews Reviews from other students	Standardized patients Video recordings (discussion, evaluation) Observation of clinical

ONTÚSTIK-OAZAOSTAN MEDISINA AKADEMIASY «Онтустік Қазақстан медицина академиясы» АҚ

Therapy and cardiology

Educational residency program 7R01105 hematology (adults)

SOUTH KAZAKHSTAN

MEDICAL

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AO «Южно-Казахстанская медицинская академия»

044-51/11

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	Score 3600	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

		MEDICAL	едицинская академия»
Therapy and cardiology Educational residency program 7R01105 hematology (adults)			044-51/11 12 of 13

Work plan for the entire period of study

	CLE OF PROFILING DISCIPLINES andatory component Hematology in the hospital	138 134	4140 4020 2460	classroom	1722	RIC	1 year of study	2 year of study	The form control	
Ma R- HH	andatory component Hematology in the	134	4020	492	1722	246			Exam	
R- HH	Hematology in the			492	1722	246			Exam	
НН		82	2460	492	1722	246			Exam	
R-OH						246	42	40		
	Outpatient hematology	52	1560	312	1092	156	28	24	Exam	
Optional	component	4	120	24	84	12		4		
R-EHPHS	Emergency hematology a									
R-AAIH										
R-CT	Clinical transfusiology									
	R-EHPHS	R-AAIH Antitumor agents and immunosuppressants in hematology/	R-EHPHS Emergency hematology at the prehospital and hospital stages/ R-AAIH Antitumor agents and immunosuppressants in hematology/	R-EHPHS Emergency hematology at the prehospital and hospital stages/ R-AAIH Antitumor agents and immunosuppressants in hematology/	R-EHPHS Emergency hematology at the prehospital and hospital stages/ R-AAIH Antitumor agents and immunosuppressants in hematology/	R-EHPHS Emergency hematology at the prehospital and hospital stages/ R-AAIH Antitumor agents and immunosuppressants in hematology/	R-EHPHS Emergency hematology at the prehospital and hospital stages/ R-AAIH Antitumor agents and immunosuppressants in hematology/	R-EHPHS Emergency hematology at the prehospital and hospital stages/ R-AAIH Antitumor agents and immunosuppressants in hematology/	R-EHPHS Emergency hematology at the prehospital and hospital stages/ R-AAIH Antitumor agents and immunosuppressants in hematology/	R-EHPHS Emergency hematology at the prehospital and hospital stages/ R-AAIH Antitumor agents and immunosuppressants in hematology/

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Therapy and cardiology			044-51/11
Educational residency program 7R01105 hematology (adults)			13 of 13

IC	TOTAL INTERMEDIATE	138	414	828					
	CERTIFICATION								
FE TOTAL	FINAL EXAMINATION	140	60 4200	828	2898	414	70	70	60

STATE STATE OF THE PARTY OF THE