

JSC "SOUTH KAZAKHSTAN MEDICAL ACADEMY"

**RECTOR OF SKMA, PROFESSOR
M. RYSBEKOV**

2024 " 01 "




**SOUTH KAZAKHSTAN
MEDICAL
ACADEMY**

EDUCATIONAL RESIDENCY PROGRAM


7R09140 «PHYSICAL MEDICINE AND REHABILITATION (ADULT, CHILDREN)»

Shymkent, 2024

ОҢТҮСТІК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ	 SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Department of "Neurology, Psychiatry, Rehabilitation and Neurosurgery" Educational programme 7R01140 "Physical medicine and rehabilitation adult, child"	044-09 15-беттің 16-беті

The educational residency program "Physical medicine and rehabilitation adult, child" 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"

Post	Full name	Signature
Developed by		
Teaching staff of the Department of Neurology, Psychiatry, Rehabilitation and Neurosurgery		
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Minutes of the department meeting № 6 from «15» «01» 2024 y.		
Discussed at the meeting of the Residency educational programs committee Chairman of the educational programs committee Protocol № 5 from "26" " 01 " 2024 y.	Kauyzbai Zh.A.	
Approved at the Clinical Council Chairman of the Clinical Council Protocol № 8 from "29" " 01 " 2024 y.	Kauyzbai Zh.A.	
Agreed by the First Vice-Rector of JSC SKMA, First Vice-Rector of JSC SKMA Protocol № ____ from " ____ " " 30 01 " 2024 y.	Esirkepov M.M.	
Approved by the Academic Council Protocol № 14 from "31" " 01 " 2024 y.		

ОНТУСТИК-ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Department of Neurology, Psychiatry, Rehabilitation and Neurosurgery Educational residency program 7R09140 «Physical medicine and rehabilitation adult, children»		

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Passport of the educational programme

1. Mission of the educational programme: To be a recognised leader in the field of competitive personnel training, to meet the needs of the resident physician in achieving learning outcomes, providing the health care system and society with highly qualified rehabilitation physicians.

2. Purpose of the educational programme: To train doctors with professional abilities of a doctor
 - physical medicine and rehabilitation and independently providing specialised highly qualified rehabilitation care to the population regardless of age and gender.

Objectives of the educational programme:

- in-depth mastering of theoretical issues of physical medicine and rehabilitation;
- improvement of practical skills in modern principles of diagnostics, interpretation of examination results from the position of evidence-based medicine, methods of preoperative preparation and methods of surgery;
- independent implementation of qualified medical care in various conditions and diseases.

3. Rationale of the EP

The need of medical organisations for medical rehabilitation specialists is the justification for the opening and necessity of training rehabilitation doctors, primarily at the regional level, taking into account the main strategies and programmes for the development of the health care system at the international, national and regional level in order to increase the level of effective application of medical rehabilitation.

4. Professional standard, on the basis of which the educational programme is developed:
 NAP "On approval of the rules of medical rehabilitation" Order of the Minister of Health of the Republic of Kazakhstan from January 25, 2024 № 46,

5. Area of professional activity: Health care.

6. Objects of professional activity: Medical organisations providing inpatient and outpatient care, health care system of the Republic of Kazakhstan

General information

№	Characteristics of EP	Data
1	Registration number	7R01100278
2	Code and classification of the field of education	7R01 Health (medicine)
3	Code and classification of training directions	7R011 Health Care
4	Code, name of educational programme	R040 Adult, paediatric physical medicine and rehabilitation
5	Type of educational programme	7R01140 Physical medicine and rehabilitation adult, paediatric
6	Group of educational programmes	Updated EP
7	MCKO level	7
8	HPK level	7
9	OPK level	7
10	Distinctive features of the EP	No
	Partner HEI (SOP)	
	Partner HEI (ДЦОП)	
11	List of competences	<p>QC1. Patient management: Prescribes a treatment plan and evaluates its effectiveness based on evidence-based practice at the level of physical medicine and rehabilitation care for patients with diseases of various systems and the human body as a whole.</p> <p>QC2. Communication and Collaboration: Communicates effectively with the patient in need of rehabilitation care, the patient's environment, and health care professionals to achieve the best outcomes for the patient</p> <p>QC3. Professionalism: Assesses risks and uses the most effective methods to ensure a high level of safety and quality at the physical medicine and rehabilitation care delivery levels</p> <p>QC4. Public Health: Acts within the legal and organisational framework of the health care system of the Republic of Kazakhstan in the specialty of physical medicine and rehabilitation, provide basic care in emergency situations, work as part of interprofessional teams to implement policies to promote the health of the nation.</p> <p>QC5. Research: Formulates adequate research questions, critically appraise professional literature in physical medicine and rehabilitation, effectively utilise international databases in their daily activities, participate in a research team</p>

		QC6. Learning and development: Learns independently and trains other members of the professional team, actively
12	Learning Outcomes	<p>LO1 Prescribes a treatment plan and evaluates its effectiveness based on evidence-based practice at the level of physical medicine and rehabilitation care for patients with diseases of various systems and the human body as a whole.</p> <p>LO2 Communicates effectively with the patient in need of rehabilitation care, their environment, and health care professionals to achieve the best outcomes for the patient</p> <p>LO3 Assesses risks and utilises the most effective methods to ensure a high level of safety and quality at the level of physical medicine and rehabilitation care.</p> <p>LO4 Public Health: Acts within the legal and organisational framework of the health care system of the Republic of Kazakhstan in the specialty of Physical Medicine and Rehabilitation, provide basic care in emergency situations, work as part of interprofessional teams to implement policies to promote the health of the nation</p> <p>LO5 Formulate adequate research questions, critically evaluate professional literature on physical medicine and rehabilitation, effectively use international databases in their daily activities, participate in a research team.</p> <p>LO6 Training and Development: able to train independently and train other members of the professional team, actively participate in discussions, conferences and other forms of continuous professional development in the field of medical rehabilitation.</p>
13	Form of study	Full-time
14	Language of instruction	Kazakh and Russian
15	Credit volume	140
16	Term of study	2 years
17	Degree, qualification awarded	doctor - physical medicine and rehabilitation
18	Availability of an annex to the licence for the direction of training	KZ 22BFA00167288
19	Availability of accreditation of OP	Yes
	Name of accreditation body	NAAR
	Accreditation validity period	Certifukat № AB 3995 10.06.2022г. -09.06.2027г.
20	Information about disciplines	Annex 1.2

Annex 1.1

Matrix of correlation between the learning outcomes of the educational programme as a whole and the competences formed

	LO1	LO2	LO3	LO4	LO5	LO6
QC1	+	+	+			
QC2		+		+		
QC3			+		+	
QC4				+		
QC5					+	
QC6						+

Annex 1.2

Competence/learning outcomes achievability matrix

№	Name of discipline	Brief description of the discipline	Cycle (DB, PD)	Component (MC, VC, CC)	Number of credits	Formative learning outcomes (codes)
1	Physical therapy	Issues of organisation of physiotherapy service in RK. Requirements for the equipment of physiotherapy department. Principles of pathological processes, mechanisms of their development and clinical manifestations. Mechanism of action of physical factors, the impact of physical factors on the main pathological processes and functions of different organs and systems of the body. Principles of compatibility and sequence of appointment of physical factors and procedures.	PD	MC	18	LO2 LO3 LO4
2	Therapeutic physical training (kinesiotherapy)	Kinesiotherapy. The concept of kinesiology. Biomechanics of movement. Anatomical and physiological bases of human movement. Principles of organisation of the training process, control of its effectiveness. Means and forms of therapeutic physical training. General and functional methods of research in therapeutic physical training. Indications and contraindications to the prescription of physical therapy.	PD	MC	18	LO1 LO2 LO3

		The use of physical factors for disease prevention, rehabilitation of patients.				
3	Musculoskeletal rehabilitation	General indications and contraindications to musculoskeletal rehabilitation depending on the nature of injuries and functional disorders. Combination of musculoskeletal rehabilitation with various physiotherapeutic procedures and physical therapy. Classification of musculoskeletal rehabilitation Special features in children.	PD	MC	18	LO2 LO3
4	Ergotherapy	Ergotherapy in medical rehabilitation. Purpose and objectives of occupational therapy. Areas of application of occupational therapy. Occupational therapy. Ergotherapy in the treatment of mental illness. Ergotherapy and rehabilitation. Functional disorders in which occupational therapy is used, indications and contraindications for its application. Methods, techniques and a set of exercises for self-care disorders of various genesis.	PD	MC	10	LO2 LO3
5	Fundamentals of medical rehabilitation	The concept of medical rehabilitation. Medical control in medical rehabilitation. Methods and means of medical rehabilitation. Features of the organisation of rehabilitation measures at various stages of medical care. Medical and social directions of rehabilitation. Types of rehabilitation. Assessment tools: scales in rehabilitation. Methods of assessing physical performance and methods of increasing the level of physical performance. Basic principles of medical rehabilitation.	PD	MC	16	LO4 LO6
6	Rehabilitation in paediatrics	Organization of medical and preventive care for children in the Republic of Kazakhstan. Anatomical and physiological features of childhood. The principles of the occurrence of pathological processes, the mechanisms of their development and clinical manifestations, taking	PD	MC	12	LO1 LO2 LO3

		into account the anatomical and physiological characteristics of the child. Etiology, pathogenesis, clinical symptoms, peculiarities of the course, diagnosis and differential diagnosis and principles of treatment of the main diseases of childhood: oncological, hematological, immunological pathology of childhood; hereditary diseases; diseases of the system of internal organs (underwent surgery).				
7	Functional diagnostics	Types of functional diagnostics in rehabilitation. Electroneuromyography (ENMG), electroencephalography (EEG), transcranial magnetic stimulation (TMS), bicycle ergometry, muscle-manual testing, ultrasound of nerves, muscles, joints. The purpose of using functional diagnostic methods. Methods of assessing physical performance and methods of increasing the level of physical performance.	PD	MC	8	LO1 LO2 LO3
8	Neurorehabilitation	Rehabilitation of patients with diseases and injuries of the central and peripheral nervous system in adults and children. Medical rehabilitation for perinatal lesions of the central nervous system. Physical therapy in violation of cerebral circulation. Medical rehabilitation for cerebral palsy, parkinsonism, peripheral paralysis, consequences of neurotrauma and neuroinfections.	PD	MC	18	LO1 LO3 LO5 LO6
9	Cardiac rehabilitation	Rehabilitation of patients after surgical interventions on the chest organs in various periods after operations (indications, contraindications, content of the rehabilitation program). Physical therapy for CHD, myocardial infarction. Methods of rehabilitation in adults and children with arterial hypertension, with pulmonary hypertension. Rehabilitation of patients with cardiomyopathy. Rehabilitation of patients with	PD	MC	8	LO1 LO3 LO5 LO6

		coronary artery disease who underwent coronary artery bypass grafting.				
10	Pulmonary rehabilitation	Exercise therapy for pneumonia. Methods of rehabilitation in adults and children with broncho-pulmonary pathology. Rehabilitation of patients with bronchial asthma, depending on the severity (indications, contraindications, content of the rehabilitation program).	PD	MC	8	LO1 LO3 LO5 LO6
	TOTAL				134	
11	Medical rehabilitation of patients with respiratory diseases	Clinical and physiological justification of PT in respiratory diseases. Methods of rehabilitation in respiratory diseases. PT in bronchial asthma, at surgical interventions on the lungs. PT in the therapeutic pool in respiratory diseases. Massage in respiratory diseases. Possible complications after infectious diseases PT in the recovery period after infectious diseases.	PD	OC	4	LO3 LO5 LO6
12	Medical-technical means in the system of medical rehabilitation	Physical medicine and rehabilitation of patients after reconstructive orthopedics and patients with limb losses, including congenital causes, and amputations. Technologies and principles of orthosis, prosthetics and application of TSR.	PD	OC		LO3 LO4
13	Nutritional support in medical rehabilitation	Features of management of patients with dysphagia in the practice of medical rehabilitation. Enteral nutrition, types. Sipping nutrition as a method of nutritional support. Rehabilitation of patients after surgical interventions on abdominal cavity organs in different periods after surgery (indications, contraindications, content of rehabilitation programme). Medical rehabilitation in gastroenterology. Methods of rehabilitation in a patient with gastric ulcer and duodenal ulcer.	PD	OC		LO3 LO5 LO6
	TOTAL				138	
	Final examination				2	
	TOTAL				140	

Matrix of LO achievement by different teaching and assessment methods

Final learning outcomes of the programme	Assessment methods	Teaching and learning methods used
LO1 Be able to advise doctors and patients on the rational choice and use of medical rehabilitation; identify, record and prevent complications.	Testing	Material breakdown, resident feedback Simulation of situations
LO2 Be able to communicate effectively with the patient and their relatives and health care professionals on the rational use of medical rehabilitation to achieve better patient outcomes.	Oral questioning	Medical record keeping
LO3 Be able to monitor the effectiveness and safety of medical rehabilitation; provide rehabilitation based on the choice of rehabilitation tools, taking into account the pathological and physiological profile of the patient, using international guidelines and clinical protocols.	Essay (short and long)	Reflective diary
LO4 Be able to act on the principles of organisational and methodological work of a medical rehabilitation physician in health care organisations on the rational conduct of medical rehabilitation, work as part of interprofessional teams to implement policies to improve the health of the nation.	Short answer	Observation of clinical work
LO5 Research: able to formulate adequate research questions, critically appraise the professional literature on medical rehabilitation, and conduct research on medical rehabilitation in health care organisations.	OSCE (with skill testing stations)	Standardised patients
LO6 Able to learn independently and train other members of the professional team, actively participate in discussions, conferences and other forms of continuing professional development in medical rehabilitation.	Mini clinical	Video recordings (discussion, evaluation) Observation of clinical work

Residents' workplan for the 7R01140 «Physical medicine and rehabilitation for adults and children » educational program

Cycle disciplines/		Discipline code	Name of disciplines/modules	umber of credits	Total hours	Auditorial	PCPD		1st year of study	nd year of study	Control form	FC
							riwm	riw				
PD		CYCLE OF PROFILING DISCIPLINES		138	4140							
PD	MC	Mandatory component		134	4020							
		R-EFF	Therapeutic physical factors	18	540	108	378	54	18		Exam	
		R-EGTR	Ergotherapy	10	300	60	10	30	10		Exam	
		R-OFMR	Fundamentals of physical medicine	16	480	96	336	48	16		Exam	
		R-PR	Rehabilitation in paediatrics	12	360	72	252	36		12	Exam	
		R-FD	Functional diagnostics	8	240	48	168	24	8		Exam	
		R-PT	Physical therapy	18	540	108	378	54	18		Exam	
		R-PR	Pulmonological rehabilitation	8	240	48	168	24		8	Exam	
		R-Nrr	Neurorehabilitation	18	540	108	378	54		18	Exam	
		R-CMR	Musculoskeletal Rehabilitation	18	540	108	378	54		18	Exam	
	R-KRB	Cardiac rehabilitation	8	240	48	168	24		8	Exam		
	OC	Optional component		4	120	24	84	12		4		
		R-MRFZOD	Medical rehabilitation of patients with respiratory diseases									
		R-MTMR	Medical-technical means in the system of medical rehabilitation	4	120	24	84	12		4	Exam	
		R-NPMR	Nutritional support in medical rehabilitation									
TOTAL				140	4200	828	2691	621	70	70		60
IC	INTERIM CERTIFICATION											
FE	FINAL EXAMINATION			2	60					2		
TOTAL				140	4200	828	2691	621	70	70		60