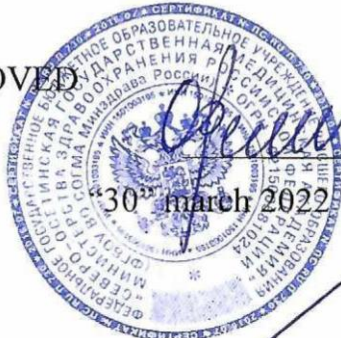


ЛД -21 ИН

Federal State Budgetary Educational Institution of Higher Education
«North-Ossetia State Medical Academy»
of the Ministry of Healthcare of the Russian Federation

APPROVED

Rector



O.V. Remizov

EDUCATIONAL TRAINING PROGRAM OF DISCIPLINE
"Medical rehabilitation"

the main professional educational program of higher education - specialty program in the
specialty 31.05.01 General Medicine, approved in march 30, 2022

Form of education Full-time

The period of development 6

Department of Psychiatry with Neurology, Neurosurgery and Medical Rehabilitation

Vladikavkaz, 2022

When developing an educational training program, the discipline is based on:

1. Federal State Educational Standard of Higher Education on specialty 31.05.01 General Medicine, approved by the Ministry of Education and Science of the Russian Federation on August 12, 2020 №988

2. Academic plan on specialty 31.05.01 General Medicine, ЛД-21 – 01-21ИИ approved by the Scientific Council of the Federal State Budgetary Educational Institution of Higher Education «North-Ossetia State Medical Academy» of the Ministry of Healthcare of the Russian Federation “30” marth 2022, Protocol № 6.

The educational training program of the discipline was approved at a meeting of the department of Psychiatry with Neurology, Neurosurgery and Medical Rehabilitation from "21. 03" 2022, Protocol №.7

The educational training program of the discipline was approved at a meeting of the central coordinating training and methodological council from "22. 03" 2022, Protocol №. 4

The educational training program of the discipline was approved by the Scientific Council of the State Medical University of the Federal State Budgetary Educational Institution of Higher Education «North-Ossetia State Medical Academy» of the Ministry of Healthcare of the Russian Federation from “30.03” 2022, Protocol № 6

Developers:

Doctor of Medical Sciences, Prof. Department of Psychiatry with Neurology, neurosurgery and medical rehabilitation

A.S. Tsogoev

Reviewers:

Deputy chief physician of the GB UZ RKB MH RNO-Alania
"Center for Medical Rehabilitation" Gurieva M.Z.

Head Department of Pharmacology with Clinical Pharmacology
Doctor of Medical Sciences, Professor Bolieva L.Z.

Content of the work program

1. the name of the discipline;
2. a list of planned learning outcomes in the discipline, correlated with the planned results of mastering the educational program;
3. an indication of the place of discipline in the structure of the educational program;
4. the amount of discipline in credit units, indicating the number of academic or astronomical hours allocated for contact work of students with a teacher (by type of training) and for independent work of students;
5. the content of the discipline, structured by topics (sections) with an indication of the number of academic or astronomical hours allocated for them and types of training;
6. a list of educational and methodological support for independent work of students in the discipline;
7. fund of evaluation means for the intermediate certification of students in the discipline;
8. a list of basic and additional educational literature necessary for mastering the discipline;
9. a list of resources of the information and telecommunication network "Internet" (hereinafter referred to as the "Internet" network) required for mastering the discipline;
10. guidelines for students on the development of the discipline;
11. a list of information technologies used in the implementation of the educational process in the discipline, including a list of software and information reference systems (if necessary);
12. description of the material and technical base required for the implementation of the educational process in the discipline.
13. Conducting educational activities using e-learning and distance learning technologies

2. The list of planned learning outcomes in the discipline and the results of mastering the educational program

№ № p/p	Competency number / index	The content of the discipline (or its sections)	Development results		
			know	Be able to	own
1	2	3			
1.	OK -3	Rehabilitation - definition of the concept, types of rehabilitation measures. Historical stages of development	The main historical stages in the development of the system of medical and social rehabilitation measures	Analyze the features of the approach to the treatment and recovery of patients, depending on the general civilization level of society	The main dates, the names of historical figures who have left a special contribution to the development of restorative medicine and social assistance
2.	OPC - 1	A three-level concept of the influence of the disease on the body as a theoretical basis for medical rehabilitation. Goals and objectives of medical rehabilitation.	Nomenclature of violations, disabilities and social failure (ICIDH)	Explain the features of the damaging effect of a disease or injury at the organ, organismic levels and the mechanism of the formation of social maladjustment.	Terms and definitions explaining the concepts of health, disease, disabilities, differences between the directions of rehabilitation programs
3.	OPC – 9	The main differences between the concepts of "treatment" and "rehabilitation", as applied to the human person, as a part of society.	Etiological, morpho-pathogenetic and clinical mechanisms underlying the emergence and development of any pathological process.	Taking into account the knowledge of the morphofunctional and social consequences of diseases, explain the features of the goals and objectives at each stage of the provision of rehabilitation assistance	Information about the features of the formation of universal or specific tissue and organismal reactions to a variety of damaging factors
4.	PC - 8	Means and methods of therapeutic measures at the inpatient and outpatient-polyclinic stages for various diseases, the inclusion of rehabilitation measures at these stages	Possibilities of using conservative and operative methods of influencing the etiological and pathogenetic mechanisms of disease	Using the example of 1-2 diseases or injuries, explain the direction and methods of treatment, and then rehabilitation measures, their	The basic principles of selection, combination of various means of therapeutic and rehabilitation measures,

			development	goals and objectives.	depending on the stage of the disease
5.	PC - 14	Modern means and methods used in medical rehabilitation programs. Physiotherapy concept, classification of physical factors. The main universal mechanisms of action of physical factors on the body.	Basic patterns of interaction of biological tissues with various types of energy. The laws of absorption, transformation of energy, features of physical and chemical processes.	Explain possible changes in tissues when energy is supplied at the atomic, molecular, cellular, microcirculatory, reflex levels.	Algorithm for explaining the universal response of the body: tropho-stimulating, vasoactive, anti-inflammatory, analgesic.
6.	PC - 14	Electrotherapy. The use of currents for therapeutic and rehabilitation purposes. Galvanic and impulse currents. Medicinal electrophoresis. Alternating currents (CMT, fluctuating, interference, TNC, Darsonval current)	Differences in the physical characteristics of currents. The mechanism of physicochemical processes occurring in tissues during the passage of various types of current, the depth of their penetration, the main target tissues.	Determine indications for the use of various types of current, depending on the etiological, pathogenetic and clinical features of the disease, substantiate the preference of this type of exposure.	Methods of conducting electrical procedures on the devices Amplipulse-5, Potok, Iskra, Ultraton, ELFOR - prof, methods of applying electrodes with their transverse and longitudinal arrangement
7.	PC - 14	Electrotherapy. Application of electromagnetic fields in medical and rehabilitation complexes. Low-frequency, pulsed, traveling magnetic fields, inductothermy, UHF, UHF, SMV.	Mechanisms of physicochemical changes occurring in tissues when pointing different types of electromagnetic fields, the depth of their penetration, the main target tissues	Determine indications for the use of various types of fields, depending on the etiological, pathogenetic and clinical characteristics of the disease, substantiate the preference for each type of exposure	Techniques for carrying out procedures on devices AVIMP, Undatherm, Volna, Chamomile.
8.	PC - 14	Phototherapy. Application of factors of light nature in medical and rehabilitation complexes. Infrared, ultraviolet radiation, chromotherapy. Laser therapy.	The mechanisms of photo-physical and photo-chemical changes occurring in tissues under irradiation with different wavelengths, the depth of their penetration, the	Determine indications for the use of various types of phototherapy, depending on the etiological, pathogenetic and clinical features of the disease,	Methods of carrying out procedures on devices Matrix, BOP-4, BOD-9, LIK-5M

			main target tissues	substantiate the preference of each type of exposure	
9.	PC - 14	Factors of a mechanical nature. Massage. Ultrasonic, shock wave, vacuum, barotherapy. Reflexology basics.	Mechanisms of reflex, humoral physicochemical changes occurring in tissues when exposed to compressions and discharges of tissue media.	Determine indications for the preferred prescription of factors of a mechanical nature, depending on the etiological, pathogenetic and clinical characteristics of the disease	The main techniques of classical massage, methods of carrying out procedures on the device UZT-101F
10.	PC - 14	Factors of water and thermal nature. Air baths. Mud therapy. Cryo-and-hydrotherapy techniques. Baths. Aerosol therapy concept.	Mechanisms of reflex, humoral physicochemical changes occurring in tissues when exposed to temperature irritants of tissues.	Determine indications for the use of various types of thermo-hydro-and-pelloid therapy, depending on the etiological, pathogenetic and clinical features of the disease, substantiate the preference of each type of exposure	Methods of using cryopackages, psamotherapy, an algorithm for drawing up recommendations for the appointment of hydrotherapy
11.	PC - 14	Balneotherapy. Origin, classification of mineral waters. Treatment and rehabilitation techniques.	The principles of classification of mineral waters by gas, ionic and microelement composition, the mechanism of therapeutic and rehabilitation action, depending on the method of balneotherapy.	Determine indications for the use of various types of mineral waters, depending on the etiological, pathogenetic and clinical characteristics of the disease, substantiate the preference of each method	Algorithm for prescribing drinking intake of mineral water depending on the etiological, pathogenetic and clinical characteristics of the disease
12.	PC - 14	Therapeutic physical culture as an integral part of medical rehabilitation. Means and methods of exercise therapy.	Mechanisms of reflex, humoral physicochemical changes occurring in the tissues during the work of the striated muscles	Choose a technique for activating the patient's motor activity depending on the etiological, pathogenetic and clinical	The main methods of increasing the patient's motor activity at the hospital stage of treatment of therapeutic, surgical and

				characteristics of the disease, substantiate the preference of each technique	traumatized patients in order to prevent complications
13.	PC - 14	Complex application of rehabilitation technologies on the example of 2-3 common nosologies. Modular lesson.	Mechanisms of mutual potentiation of the actions of rehabilitation techniques in their combined and complex application	Determine indications for the use of various means of medical rehabilitation, depending on the etiological, pathogenetic and clinical characteristics of the disease.	Algorithm for prescribing means and methods of medical rehabilitation for the most common diseases

3. Place of discipline in the structure of the educational program

The academic discipline (module) "Medical rehabilitation" refers to the basic part of block 1 of the Federal State Educational Standard of Higher Education "General Medicine"

4. Scope of the discipline

№ № p/p	Type of work	Total credits	Total hours	Semesters
				Specify semester number 7
				hours
1	2	3	4	5
1	Contact work of students with teacher (total), including:	2	72	72
2	Lectures (L)	0,6	20	20
3	Clinical Practices (CL)	1,4	52	52
4	Seminars (S)			
5	Laboratory work (LW)			
6	Самостоятельная работа студента (CPC)	1	36	36
7	Type of intermediate appraisals	credit (C)		
		exam (E)		
8	TOTAL: General labor intensity	hours	108	108
		CUT	3	3

5. Discipline content22+

№/p	Semester number	Name of the topic (section) of the discipline	Types of educational activities (in hours)					Forms of monitoring of progress
			L	LR	PL	CRC	bcero	
1	2	3	4	5	6	7	8	9
1	VII	The subject and objectives of physiotherapy. Theoretical foundations of the mechanism of action of physical factors. The main ways and features of the action of physical factors on the most important functional systems of the body.	2				2	interview
2	VII	Electrotherapy. Constant electric current. Galvanization and medicinal electrophoresis. Physiological action of direct current.	2				2	interview
3	VII	Pulse currents of direct and alternating directions. The form of impulse currents, their therapeutic and diagnostic use. DDT, electrosleep, SMT, fluctuorization, interference therapy, TNCh.	2				2	interview
4	VII	Electromagnetic fields. PMP, IMP. Inductothermy. Microwave (UHF, SMV). EHF-therapy.	2				2	interview
5	VII	Mechanical vibrations of the medium. Ultrasound therapy. Shock wave therapy, vibration and barotherapy. Physical characteristics of factors. The mechanism of therapeutic action.	2				2	interview
6	VII	Massage. Mechanisms of action on the body. Classic massage techniques. Types of massage.	2				2	interview
7	VII	Phototherapy. Modern understanding of the nature of light. Thermal and photochemical action. Photobiological processes in the body. Infrared rays. Visible radiation. UFO. Laser therapy.	2				2	interview
8	VII	Factors of thermal and water nature. Mud therapy. Hydrotherapy.	2				2	interview
9	VII	Basic concepts of balneology and balneotherapy.	2				2	interview
10	VII	Sanatorium-resort stage of medical rehabilitation. Classification of resorts. Means and methods of rehabilitation.	2				2	interview
11	VII	Rehabilitation is the definition of the concept. A three-level concept of the influence of the disease on the body as a theoretical basis for medical rehabilitation. Goals and objectives of medical rehabilitation.			4,5		4,5	Poll, testing
12	VII	Stages of providing rehabilitation assistance. Principles of application of methods of medical rehabilitation.			4,5		4,5	Poll, testing

13	VII	The main universal mechanisms of action of physical factors on the body.			4,5		4,5	Poll, testing
14	VII	Electrotherapy. The use of currents for therapeutic and rehabilitation purposes.			4,5		4,5	Poll, testing
15	VII	Application of electromagnetic fields in medical and rehabilitation complexes.			4,5		4,5	Poll, testing
16	VII	Phototherapy. Infrared, ultraviolet radiation, chromotherapy. Laser therapy.			4,5		4,5	Poll, testing
17	VII	Using factors of a mechanical nature.			4,5		4,5	Poll, testing
18	VII	Application of hydro-and-thermotherapy			4,5		4,5	Poll, testing
19	VII	Origin, classification of mineral waters. Treatment and rehabilitation techniques.			4,5		4,5	Poll, testing
20	VII	Therapeutic physical culture as an integral part of medical rehabilitation. Means and methods of exercise therapy.			5		5	Poll, testing
21	VII	Modular lesson.			6,5		6,5	Poll, testing
22	VII	Application of the changed state of the air environment. Aerosols. Inhalation therapy. Barotherapy.				6	6	Poll, testing
23	VII	Resorts. Types of resorts, indications, contraindications. Sanatorium selection.				6	6	interview
24	VII	Hardening as a method of increasing adaptive capital. Hardening techniques.				6	6	interview
25	VII	Rare and unconventional treatment and rehabilitation techniques.				6	6	interview
26	VII	Climatotherapy. Mechanisms of action of climatic factors.				6	6	interview
27	VII	Fundamentals of medical control when practicing therapeutic and health-improving physical education				6	6	interview
TOTAL:			20		52	36	108	

6. The list of educational and methodological support for independent work of students in the discipline

№/p	Semester number	Name of educational and methodological development
	VII	Name of educational and methodological development
	VII	Collection of control tests for medical rehabilitation
	VII	Collection of workbooks on the studied sections of medical rehabilitation
	VII	Antonyants E.R. Medical support for people involved in physical culture and mass sports.

7. Fund of assessment tools for intermediate certification of students in the discipline

№/p	List of competencies	Semester number	Indicator (s) evaluating	Evaluation criterion (s)	Grading scale	Name VF (FOS)
1	2	3	4	5	6	7
	OC - 3 OPC - 1 OPC - 9 PC - 8 PC - 14	VII	See the standard for assessing the quality of education, approved. By order of the FSBEI HE SOGMA of the Ministry of Health of Russia dated 10.07. 2018 No. 264 / o	See the standard for assessing the quality of education, approved. By order of the FSBEI HE SOGMA of the Ministry of Health of Russia dated 10.07. 2018 No. 264 / o	See the standard for assessing the quality of education, approved. By order of the FSBEI HE SOGMA of the Ministry of Health of Russia dated 10.07. 2018 No. 264 / o	Билеты к зачету, тестовые задания.

8. The list of basic and additional educational literature necessary for mastering the discipline

п/№	Наименование	Автор (ы)	Год, место издания	Кол-во экземпляров	
				в библиотеке	на кафедре
1	2	3	4	5	6
1.	Общая физиотерапия: учебник	Пономаренко Г.Н.	М.:ГЭОТАР-Мадиа,- 2012г.	51	1
				«Консультант студента» http://www.studmedlib.ru/book/ISBN9785970431672.html	
2.	Общая физиотерапия	Боголюбов В.М., Пономаренко Г.Н.	М.: Медицина, 2008	66	1

additional literature

п/№	Наименование	Автор (ы)	Год, место издания	Кол-во экземпляров	
				в библиотеке	на кафедре
1	2	3	4	5	6
1.	Физиотерапия	Улащик В.С.	Минск, 2008.	-	1
2.	Практическое пособие по электро-и магнитотерапии.	Воробьев М.Г., Пономаренко Г.Н.	СПб.: Гиппократ, 2002.г.	-	1
3.	В помощь врачу-физиотерапевту. Сборник нормативно-	Шейна А.Н., Филатов В.И.	М., 2002г.	-	1

	правовых материалов				
4.	Основы реабилитологии: учеб.пособие	Ибатов А.Д. Пушкина С.В.	М.:ГЭОТАР-Мадиа,- 2007г.	7	
				«Консультант студента» http://www.studmedlib.ru/book/ISBN9785970403990.html	
5.	Физиотерапия: национальное руководство	ред. Пономаренко Г.Н.	М.:ГЭОТАР-Мадиа,- 2014г.	1	
6.	Применение глинттереклитов в лечении больных ДЦП.	Канукова З.В.	Владикавказ, 2002	-	1
7.	Восстановительное лечение больных детским церебральным параличом.	Канукова З.В.	Владикавказ, 2004	1	1
8.	Лечебное применение тереклитов. Методические рекомендации.	Мирзаева Л.М.	Владикавказ, 2005	-	1

9. The list of resources of the information and telecommunication network "Internet" necessary for mastering the discipline

StudFiles.net
 Studmedlib.ru
 likar.info
<http://vmede.org>
 studentmedic.ru
 medical-enc.ru
 uz.denemetr.com

10. Methodical instructions for students on mastering the discipline

Training consists of classroom lessons (72 hours), including a lecture course and practical exercises, and independent work (36 hours). The main study time is allocated for practical work on the study of the effect of various non-drug methods of restoring the morphology and function of organs disturbed by disease or injury. Particular attention is paid to the differentiated choice of rehabilitation means and methods depending on the ethology of the disease, the stage of the pathogenetic process and the main clinical manifestations, symptoms of the disease.

When studying the discipline, it is necessary to use the basic and additional recommended literature and master practical skills in working with physiotherapy equipment, hardening and classical massage techniques.

Practical exercises are carried out in the form of answers to tests, oral questioning, conducting independently physiotherapeutic procedures to each other, to demonstrate characteristic sensations from certain influences, mastering postural and breathing techniques, being present at classes in the exercise therapy hall, using visual aids, solving situational problems for dosing physical activity.

In accordance with the requirements of the Federal State Educational Standard of Higher Education, active and interactive forms of conducting classes (video films, situational tasks, independent extracurricular work) are widely used in the educational process. The proportion of classes conducted in interactive forms is at least 20% of classroom lessons.

Independent work of students implies the preparation of the formation of a systematic approach to the analysis of medical information, includes the study of additional literature, work with medical documentation.

Work with educational literature is considered as a type of educational work in the discipline "Medical rehabilitation" and is performed within the hours allotted for its study (in the IWS section).

Each student is provided with access to the library funds of the academy and department. While studying the discipline, students independently study exercise complexes for different nosologies, attend classes in the exercise therapy hall.

The student's work in a group forms a sense of teamwork and sociability.

11. The list of information technologies used in the implementation of the educational process in the discipline

semester	Type of occupation L, PL, S,	Educational technologies used (active, interactive)	Количество часов Number of hours	% of classes in an interactive form	List of software
8	L	Set of slides for a traditional lecture	20		Microsoft Office PowerPoint; Internet Explorer
8	PL	A set of questions and assignments for the practice, a set of slides and a video	52	20	Microsoft Office
8	S	Questions and tasks for independent work	36		Microsoft Office Internet Explorer

12. Description of the material and technical base necessary for the implementation of the educational process in the discipline

№/п	Name of equipment	Количество quantity	Technical condition
1	2	3	4
Специальное оборудование			
1.	Physiotherapy equipment in the polyclinic department of the Republican Center for Medical Rehabilitation		
2.	A selection of slides with modern rehabilitation equipment	12	
3.	Mechanotherapy devices in the gymnastics hall	6	satisfactorily
4.	Educational video about massage	1	
5.	Posters and tables by hardware section physiotherapy	21	

13. Conducting educational activities using e-learning and distance learning technologies

In the context of the introduction of restrictive measures (quarantine) associated with an unfavorable epidemiological situation, the threat of the spread of a new coronavirus infection and other force majeure events that do not allow full-time training, it is possible to study this discipline or part of it using e-learning and distance educational technologies.

Teaching the discipline in the above situations will be carried out through the development of an electronic course with access to video lectures and interactive course materials: presentations, articles, additional materials, tests and various assignments. When conducting training sessions, monitoring progress, as well as intermediate certification of students, platforms of the electronic information and educational environment of the academy and / or other e-learning systems recommended for use in the academy, such as Moodle, Zoom, Webinar, etc.

Lectures can be presented in the form of audio, video files, "live lectures", etc.

Conducting seminars and workshops is possible on-line in both synchronous and asynchronous modes. Seminars can be conducted in the form of web conferences.