

*Federal State Autonomous Educational Institution of Higher Education "Peoples'
Friendship University of Russia"/RUDN University*

Medical Institute

Recommended by the MSSN

WORKING PROGRAM OF THE DISCIPLINE

Name of the discipline

Medical Rehabilitation

Recommended for the direction of specialty training

31.05.03. Dentistry

Focus of the program

Dentistry

1. Goals and objectives of the discipline:

The goal is to form the concept of "medical rehabilitation" among students, a complete view of its modern capabilities, an idea of the basics of medical rehabilitation, which concerns the main aspects of planning and conducting rehabilitation activities.

Aims of the discipline:

- To gain the knowledge by students on the basic parts of medical rehabilitation and the study of topical issues of rehabilitation.
- To train to operate with modern technologies and methods used in the rehabilitation treatment and rehabilitation of patients.
- To study the theoretical foundations of physiotherapy and physical therapy, the mechanisms of the therapeutic effect of physical factors, based on the principles of the development of pathological processes.
- To familiarize students with the principles of the organization of the medical rehabilitation and prevention service for the prevention of disability, including the restoration of impaired functions by the disease and social rehabilitation.
- To familiarize students with the basic principles and organizational approaches of medical rehabilitation in clinical practice.

2. The place of the discipline in the structure of the OP VO:

The discipline " Medical Rehabilitation" belongs to the basic part of block 1 of the curriculum.

Table No. 1 shows the previous and subsequent disciplines aimed at the formation of the discipline's competencies in accordance with the competence matrix of the OP VO.

Table No. 1

Previous and subsequent disciplines aimed at the formation of competencies

№ п/п	Competence Code and Name	Previous disciplines	Subsequent disciplines (groups of disciplines)
Universal competences			
1	UC-1	Physics; Mathematics; Anatomy; Normal Physiology; Pathological Physiology; Pharmacology; Biochemistry; Public Health, Healthcare Economics	Clinical dentistry
2	UC-8	Life safety	Emergency Medicine
General professional competences			
1	GPC-1.	Jurisprudence;	
2	GPC -2	Biology; Biochemistry	
3	GPC -4	Physics	
4	GPC -5	Biology ; Biochemistry; Microbiology, Virology; Internal Diseases	
5	GPC -6	Life safety; Biology ; Biochemistry; Topographic anatomy and Operative Surgery; Immunology	Emergency Medicine
6	GPC -7	Life safety	Emergency Medicine

7	GPC -9	Surgical diseases; Internal diseases; Pediatrics; Obstetrics and Gynecology; Neurology	Telemedicine
Professional competencies			
1	PC-1.	Pathophysiology, clinical pathophysiology; Epidemiology; Infectious diseases; Pediatrics; Obstetrics and Gynecology	Emergency Medicine; Oncostomatology and radiation therapy
2	PC -2	General surgery; Internal diseases	Oncology, radiation therapy; Clinical dentistry
3	PC -3	Physiotherapy of dental diseases	Clinical dentistry

3. Requirements for the results of mastering the discipline.

The process of studying the discipline is aimed at the formation of the following competencies:

Table 2

Emerging competencies

Universal Competence Category Name	Name of the competence	Universal Competence Achievement Indicator Code and Name
UC-1	Being able to implement critical analysis of problem situations based on systems approach, develop an action strategy.	UC-1.1. Analysing the problem situation as a system identifying its components and links between them. UC-1.2. Defining gaps in the information required to deal with a problem situation and designing processes to address them. UC-1.3. Assessing in a critical way the reliability of information sources; working with contradictory information from different sources. UC-1.4. Developing and giving meaningful reasons for and against a strategy for solving a problem situation in terms of a systematic and interdisciplinary approaches. UC-1.5. Using logical and methodological tools for critical assessment of the modern concepts of a philosophical and social nature in the relevant field of study.
UC-8.	Being able to create and maintain safe conditions in everyday life and professional activity to protect natural environment, ensure sustainable development of society, including in the event of a threat and occurrence of	UC-8.1. Analysing the factors of harmful impact on the vital functions of the elements of the environment (technical means, technological processes, materials, buildings and structures, natural and social phenomena). UC-8.2. Identifying hazardous and harmful factors within the framework of the carried out activities. UC-8.3. Solving problems related to unsafe behaviour and participating in activities to prevent emergencies in the workplace. UC-8.4. Observing and explaining the rules of behaviour in case of emergencies of natural and man-made origin; providing first aid; participating

	emergencies and military conflicts.	in recovery activities.
GPC-1.	Being able to implement moral standards and legal regulations, ethical and deontological principals in professional activity	<p>GPC-1.1. Observing bases of medical ethics and deontology; legal bases in healthcare; legal aspects of medical practice.</p> <p>GPC-1.2. Applying ethical standards and principles of a medical worker's behaviour when performing their professional duties; being aware of the latest health legislation when solving professional problems; applying the rules and norms of the doctor's interaction with colleagues and patients (their legal representatives).</p>
GPC-6.	Being able to prescribe non-drug and drug treatment, monitor its efficacy and safety when solving professional tasks	<p>GPC-6.1. Developing a plan for dental disease treatment taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the medical care standards.</p> <p>GPC-6.2. Selecting medical products (including dental materials) for drawing up a comprehensive plan for dental disease treatment. Following up the treatment of a patient.</p> <p>GPC-6.3. Assessing the possible side effects of taking medicinal drugs.</p> <p>GPC-6.4. Providing medical care to a dental patient in emergency or urgent forms.</p> <p>GPC-6.5. Organizing the prevention and treatment of complications, side effects, undesirable reactions, including the unforeseen ones, which can arise from diagnostic or medicinal manipulations, use of drugs and (or) medical devices, non-drug treatment at a dental appointment.</p> <p>GPC-6.6. Organizing personalized treatment of a dental patient, including elderly and senile patients, pregnant women, children with somatic pathologies; evaluating the efficacy and safety of treatment.</p> <p>GPC-6.7. Prescribing medicinal drugs, medical devices, taking into account the diagnosis, age and clinical picture, and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account medical care standards.</p>
GPC-4.	Being able to monitor the effectiveness of preventive measures, healthy lifestyle formation and sanitary and hygienic education of the population	<p>GPC-4.1. Analysing the awareness of the population of a healthy lifestyle and medical literacy.</p> <p>GPC-4.2. Developing a plan to improve sanitary culture and prevent diseases of the population, organizational and methodological measures aimed at increasing the awareness of the population of a healthy lifestyle, its literacy in dental disease prevention.</p>

		GPC-4.3. Preparing an oral presentation or a printed text that promotes a healthy lifestyle and increases the literacy of the population concerning dental disease prevention.
GPC-7.	Being able to organize work and take professional decisions in case of emergency conditions, amid emergencies, epidemics, and in the foci of mass destruction	GPC-7.1. Being able to use the algorithm for providing first aid in emergency conditions, including in extreme conditions and foci of mass destruction. GPC-7.2. Identifying conditions requiring emergency medical care, including clinical signs of sudden cessation of blood circulation and acute respiratory failure. GPC-7.3. Providing emergency medical care to patients with conditions that pose a threat to the patient's life, including clinical death (cessation of the vital bodily functions (blood circulation and (or) breathing)). GPC-7.4. Using drugs and medical products when providing emergency medical care.
GPC-9.	Being able to assess morpho-functional, physiological conditions and pathological processes in the human body to solve professional tasks	GPC-9.1. Being able to use the algorithm of clinical, laboratory and functional diagnosis in dealing with professional tasks. GPC-9.2. Evaluating the results of clinical, laboratory and functional diagnosis in dealing with professional tasks. GPC-9.3. Determining morpho-functional, physiological states and pathological processes of the human body.
GPC-12.	Being able to implement and monitor the effectiveness of medical rehabilitation of a dental patient	GPC-12.1. Developing optimal tactics for the treatment of oral pathology in children and adults taking into account the general somatic disease and further rehabilitation of a patient. GPC-12.2. Applying methods of complex rehabilitation of patients with dental diseases taking into account the general condition of the body and the presence of concomitant pathology.
GPC-13.	Being able to understand the operation principles of modern IT and use them to solve the professional tasks	GPC-13.1. Using information technology in professional activity and observing the information security rules. Information and communication media and technology in professional activity. GPC-13.2. Observing the information security rules in professional activity.
PC-1	Being able to make an examination of a patient in order to determine a diagnosis.	PC-1.1. Making an initial examination and/or reexamination of a patient in order to make a preliminary diagnosis. PC-1.2. Receiving information from patients (their relatives/legal representatives); conducting a questionnaire survey of patients regarding their general health status; identifying concomitant diseases in order to make a preliminary diagnosis. PC-1.3. Detecting if patients have dentoalveolar, facial anomalies, deformities and prerequisites for

		<p>their development, defects in the crowns of teeth and dentition on the basis of the patient examination; laboratory, instrumental, and additional examinations in order to make a preliminary/final diagnosis.</p> <p>PC-1.4. Detecting if patients have risk factors for oncopathology (including various background processes, precancerous conditions) based on laboratory, instrumental and additional examinations in order to make a preliminary/final diagnosis.</p> <p>PC-1.5. Making a preliminary/final diagnosis based on the patient examination; laboratory and instrumental examinations.</p> <p>PC-1.6. Making a final diagnosis based on additional examinations of patients.</p>
PC-3.	Being able to develop, implement and monitor the effectiveness of individual rehabilitation programmes	<p>PC-3.1. Providing qualified medical care in the specialty using modern rehabilitation methods approved for use in medical practice.</p> <p>PC-3.2. Drawing up an individual rehabilitation plan for a patient with diseases of the maxillofacial area.</p> <p>PC-3.3. Monitoring and selecting medicinal drugs for patient rehabilitation.</p>
PC-4.	Being able to conduct and monitor the effectiveness of sanitary, anti-epidemic and other preventive measures to protect public health	<p>PC-4.1. Conducting brief preventive counseling, preventive examinations of the population and measures to reduce morbidity, including infectious diseases, disability, mortality, lethality.</p> <p>PC-4.2. Drawing up a plan of preventive dental care for patients and selecting drugs and medical devices in the Dental Materials category for preventing dental diseases; monitoring their implementation.</p> <p>PC-4.3. Providing qualified medical care in their specialty using modern prevention methods approved for use in medical practice.</p> <p>PC-4.4. Organizing monitoring the prevention of diseases of the oral mucosa and lips, including oncological and hygienic prevention and secondary prevention of oncological neoplasms, with the exception of specialized appointments for the treatment of precancers of the oral mucosa and lips.</p>

As a result of studying the discipline, the student must:

Know:

- features of the organization of medical rehabilitation, the basic principles of conducting rehabilitation measures for diseases, injuries, surgical interventions at various stages
- the main methods of rehabilitation, the mechanisms of therapeutic and rehabilitative effects of physiotherapy, kinesotherapy, mechanotherapy, massage, reflexotherapy, manual therapy, the principles of their compatibility and the sequence of prescribing, indications and contraindications for prescribing at the stages of rehabilitation
- the main resort factors, the organization and principles of rehabilitation of patients with various forms of pathology in the conditions of sanatorium-resort institutions

- the mechanism of action and physiological changes in the body after treatment with physical methods
- classification of resorts and the mechanism of action of resort factors on the body.
- clinical and functional characteristics of the means of physical therapy
- physical and chemical processes occurring in the body under the influence of various physical factors (electrotherapy, light therapy, the effects of electro-magnetic waves, mechanical factors).

Be able to:

- determine the need for rehabilitation measures, apply the main methods of rehabilitation in practice
to justify the need for the use of natural and artificial physiotherapy factors, taking into account the stage of the disease or injury
- to choose methods of rehabilitation for various forms of pathology (drug therapy, kinesotherapy, mechanotherapy, massage, physiotherapy methods of treatment), taking into account the impaired functions of the body, to determine indications and contraindications for their appointment.
- to evaluate the patient's reaction to the physiotherapy procedure and the effectiveness of the course of treatment
- identify general and specific signs in order to determine the indications and contraindications for the appointment of medical rehabilitation
- formulate indications for the use of pathogenetic methods of treatment of patients at the stages of medical rehabilitation, evaluate the effectiveness and safety of the treatment.
- make appointments to the complex of therapeutic gymnastics and other forms of physical therapy for various diseases (therapeutic, surgical, neurological profile) for inpatient, sanatorium and polyclinic stages.
- analyze the quality and effectiveness of rehabilitation measures and maintain accounting and reporting documentation
- to justify and assign a motor regime to the patient at the inpatient and polyclinic stages of rehabilitation.

Possess:

- the knowledge of basic terminology used in medical rehabilitation
- methods of clinical examination, assessment of functional disorders in patients
- methods of selection of rehabilitation methods for patients with various diseases (drug therapy, kinesotherapy, mechanotherapy, massage, physiotherapy methods of treatment)
- an algorithm for drawing up individual programs of medical rehabilitation of patients with various forms of pathology

4. The scope of the discipline and types of academic work

The total labor intensity of the discipline is 2 credits

Type of educational work	amount of time	Semesters			
		9			
Classroom classes (total)	48	48			
Including:	-	-	-	-	-
<i>Lectures</i>	12	12			
<i>Practical exercises (PE)</i>	36	36			
<i>Seminars (S)</i>					

<i>Laboratory work (LW)</i>					
Independent work (total)	24	24			
Total labor intensity	72	72			
hours	2	2			
	Credit	units			

5. Content of the discipline

5.1. The content of the discipline sections

№	Name of the discipline section	Section content
1.	Theoretical aspects of medical rehabilitation	Fundamentals of medical rehabilitation
2.	Physiotherapy methods in the system of medical rehabilitation	Basics of physiotherapy
3	Balneology	Basics of balneology

5.2 Sections of disciplines and types of classes

№ п/п	Name of the discipline section	Lectures	Practical exercises	Laboratory work	Seminars	independent student work	Total hours
1.	Theoretical aspects of medical rehabilitation	4	16			8	28
2.	Physiotherapy methods in the system of medical rehabilitation	2	10			8	20
3	Balneology	6	10			8	24
	Total	12	36			24	72

6. A laboratory workshop is not provided.

7. Practical exercises

№	Name of the discipline section	Name of practical work	Total hours
1.	Theoretical aspects of medical rehabilitation	Fundamentals of medical rehabilitation	16
2.	Physiotherapy methods in the system	Basics of physiotherapy	10

	of medical rehabilitation		
3	Balneology	Basics of balneology	10

8. Material and technical support of the discipline:

- the following components of the material and technical resources of the RUDN are used:
- Classrooms, material and technical resources, library.
- Lecture hall, classrooms, intensive care units at the clinical base for conducting practical classes at the Federal Research and Clinical Center of Intensive Care Medicine and Rehabilitology “FNKC RR”

9. List of information technologies

Information support of the discipline

a) software: licensed software. Websites on the Internet that correspond to certain topics of the discipline, resources of the university's electronic library, databases, information and reference and search engines.

б) databases, information and reference and search engines _

1. Electronic library system of the RUDN <http://lib.rudn.ru/MegaPro/Web>

2. University Library Online <http://www.biblioclub.ru>

3. <http://www.biblio-online.ru>

4. Scientific Library Elibrary <http://elibrary.ru>

5. www.studentlibrary.ru

6. <http://e.lanbook.com/>

7. Medical portal <http://meduniver.com/>

8. Website of rehabilitation specialists of Russia <https://rehabrus.ru/>

9. State Central Medical Library of the I. M. Sechenov Moscow State Medical University Scsml.rssi.ru

10. Educational and methodological support of the discipline:

a) basic literature

- Meditsinskaya reabilitatsiya: uchebnik / pod red. A.V. Yepifanova, Ye.Ye. Achkasova, V.A. Yepifanova. M.: GEOTAR Media, 2015. 668s.
- Obshchaya fizioterapiya: uchebnik / Ponomarenko G.N., M.; GEOTAR-Media, 2014.
- Meditsinskaya reabilitatsiya : uchebnik./ Ponomarenko G. N. – M.: GEOTAR-MED, 2014.
- Vosstanovitel'naya meditsina. Uchebnoye posobiye dlya studentov. Pod.red. O.I. Leyzerman i dr. Rostov n/D.: Feniks, 2008.

б) additional literature

- Fizicheskaya i reabilitatsionnaya meditsina: natsional'noye rukovodstvo/ pod red. G. N. Ponomarenko. – M.: GEOTAR-Media, 2016. – 688 s.
- Fizicheskaya reabilitatsiya invalidov i lits s otkloneniyami v sostoyanii zdorov'ya. V.I. Dubrovskiy, A.V. Dubrovskaya. M.: «BINOM», 2010.
- Osnovy reabilitatsii.- Uchebnoye posobiye. M.A. Yeremushkin, M.: Izdat. Tsentr Akademiya. 2011.

Bogolyubov V.M. Fizioterapiya i kurortologiya, 3 toma, Moskva, 2009

11. Methodological guidelines for students on the development of the discipline "Medical Rehabilitation "

The training of students contributes to the education of their communication skills with the patient, taking into account the ethical and deontological features of pathology and patients.

The student is required to attend classes, perform tasks of the head of the discipline, get acquainted with the recommended literature, etc. When certifying a student, the quality of work in the classroom, the level of preparation for independent activity in the chosen field, the quality of performing tasks of the head of the discipline, the ability to independently study educational material are evaluated.

During practical classes in the classrooms, the analysis of relevant topics is carried out using multimedia equipment (computer, projector).

Independent work during extracurricular hours can take place both in the classrooms of the department and in the computer class, where students can study material on presentations prepared by teachers of the department, as well as on computer tests.

Presentations on the topics of classes can be recorded on CD-ROMs or flash cards for students to work independently on their home computer.

Textbooks in electronic form on a number of studied topics are posted on the pages of the department and the staff of the department on the Educational portal of the RUDN, as well as on the local resources of the electronic library system of the RUDN.

Independent work is the planned educational, research, research work of students, performed during extracurricular (classroom) time on the assignment and with the methodological guidance of the teacher, but without his direct participation (with partial direct participation of the teacher, leaving the leading role for the work of students).

As one of the forms of independent work, it is provided for the preparation of abstracts on various sections of the course, as well as the presentation of reports at the permanent scientific seminar of the department.

Extracurricular independent work includes: the study of material from a textbook, textbooks on paper and electronic media; preparation of an abstract message on a selected topic; preparation for the implementation of control works and test tasks.

12. Evaluation scores for conducting intermediate certification of students in the discipline "Medical Rehabilitation"

Materials for assessing the level of mastering the educational material of the discipline "Medical Rehabilitation", including a list of competencies indicating the stages of their formation, a description of indicators and criteria for evaluating competencies at various stages of their formation, a description of assessment scales, standard control tasks or other materials necessary for assessing knowledge, skills, skills and (or) experience of activity that characterize the stages of competence formation in the process of mastering the educational program, methodological materials defining the procedures for evaluating knowledge, skills, skills and (or) experience of activity that characterize the stages of competence formation are fully developed and are available to students on the discipline page in the TUIS RUDN.

The program is compiled in accordance with the requirements of the Federal State Educational Standard for Higher Education.

Developers:

Assistant of the Department of Anesthesiology and Resuscitation
with a course of medical rehabilitation

N.P. Shpichko

Head of the Department of Anesthesiology and Resuscitation with a course of medical rehabilitation

M.V. Petrova

Program Manager

S.N. Razumova