

**MINISTRY OF SCIENCE AND HIGHER EDUCATION
RUSSIAN FEDERATION**

**FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF
HIGHER EDUCATION
NORTH-CAUCASUS FEDERAL UNIVERSITY**

Methodological Guidelines
for Students on arranging and performing independent work
in the Discipline of "MEDICAL REHABILITATION"
for Students majoring (Specialty) in 31.05.01 General Medicine

INTRODUCTION

The purpose of the discipline is to provide an understanding of the fundamentals of medical rehabilitation and to teach students how to use rehabilitation measures in medical practice.

The main objectives of the discipline are to teach students:

- how to conduct rehabilitation measures for people who have suffered from a somatic disease, injury, or surgery;
- how to use physical culture, therapeutic exercise, physiotherapy, non-traditional methods of therapy (reflexology, herbal medicine, homeopathy, etc.), and the main resort factors for those in need of rehabilitation.

Methodological Recommendations for Studying Theoretical Material

When performing the independent study of theoretical material, the student must follow the rules as set below. The working curriculum of the respective academic discipline shall be recommended to be used as the basis for such activity. According to the schedule of classroom lessons and independent work, a different number of hours is to be allocated for studying individual topics. A significant portion of the student's independent work should be allocated to mastering the material on the covered topic, writing a summary (notes) on the specified theoretical blocks, and searching for additional literature based on the NCFU library and via the Internet system. The lecture material shall not cover all theoretical material; the greater part of it must be mastered through independent work. Given the above, working with the recommended literature is mandatory. Special attention must be paid to the content of the main provisions and conclusions, the explanation of phenomena and facts, and the understanding of the practical application of the theoretical issues under consideration. In the process of this work, the student should strive to understand and memorize the main provisions of the material being considered, the examples illustrating it, as well as to understand the illustrative material. Preparation should be completed by drawing up a plan (summary/notes) on the material (issue) being studied. This allows for the creation of a concentrated, concise representation of the issues being studied. First, studying the recommended literature is to be done. Special attention must be paid to the content of the main provisions and conclusions, the explanation of phenomena and facts, and the understanding of the practical application of the theoretical issues under consideration.

During this work, the student should strive to understand and memorize the main provisions of the material being considered, the examples illustrating it, as well as to understand the illustrative material. Preparation should be completed by drawing up a plan (summary/notes) on the material (issue) being studied. This allows for the creation of a concentrated, concise representation of the issues being studied. If necessary, one should seek (advice) consultation from the instructor. When going to a consultation, it is necessary to thoroughly think through the questions that require clarification. Keeping records contributes to turning reading into an active process, mobilizing motor memory along with visual memory. The following should be born in mind: a student who systematically keeps records creates their own individual stock of auxiliary materials for a quick review of what has been read and for the mobilization of accumulated knowledge. Records are especially important and useful when they reflect the thoughts that arose during independent work.

It is important to develop the students' capacity to compare sources and to think through the material being studied.

Improving note-taking skills among students is of great importance.

The instructor may recommend the following main forms of recording to students: a plan (simple and detailed), excerpts, and theses (abstracts).

The results of note-taking can be presented in various forms.

- A plan is an outline of the read material, a brief (or detailed) list of questions reflecting the structure and sequence of the material.
- A detailed plan fully replaces a summary.

- A summary (notes) is a systematized, logical presentation of the source material. Four types of summaries are distinguished:
- Outline-summary (Plan-notes) – this is an expanded, detailed plan in which sufficiently detailed records are provided for those points of the plan that need explanation.
- Textual summary – this is the reproduction of the most important provisions and facts of the source.
- Free summary – these are clearly and briefly formulated (stated) main provisions resulting from a deep understanding of the material. It may contain excerpts, quotations, and theses; part of the material may be represented by a plan.
- Theme-based summary – this is compiled on the basis of studying a number of sources and gives a more or less exhaustive answer according to a certain scheme (issue).

Methodological Guidelines for the Preparation for Practical Activities

When preparing for practical activities, the recommendation implies studying the control questions for the given lesson and the theoretical material from one's own notes.

The main form of work during the lessons is an interview (discussion). Each student must be ready to speak on all issues raised in the plan and demonstrate maximum activity during their consideration.

The speech must be constructed freely, convincingly, and with arguments. The instructor ensures that the speech is not reduced to a reproductive level (simple reproduction of the text); simple reading of the summary is also not allowed.

It is necessary for the speaker to show their own attitude towards what they are talking about, express their personal opinion and understanding, substantiate it, and be able to draw the correct conclusions from what has been said. In doing so, the student may refer to the entries in the summary, directly to the primary sources, use knowledge of previously studied disciplines, etc. In addition, to obtain a grade at an advanced level, students solve situational tasks based on the results of the mastered topics.

During the execution of practical works, a defense of practical skills is provided, the full list of which is specified in the fund of assessment tools.

Methodological Recommendations for the Preparation of Presentations and Reports

The report must contain elements of novelty; along with the fundamental aspect, an analysis of the current state of the problem under study must be carried out, as well as inclusion in regional issues. The report must include an introduction, a theoretical part, a conclusion, a list of literature, and a presentation that reveals the essence of the topic in graphs, pictures, diagrams, and formulas.

The report is recommended to be submitted on 1 printed sheet. The text of the work must be printed with 1.5 line spacing on one side of a standard sheet (A4) of white paper.

The text and other printed elements of the work must be black, and the contours of letters and signs must be clear, without halos and shading. The font must be Times New Roman, size 14. The titles of chapters and paragraphs are highlighted in bold. The sheet with text must have margins: left – 30 mm, right – 10 mm, top – 20 mm, bottom – 20 mm.

Page numbering of the text is done in the lower right corner of the sheet. It is necessary to number pages starting from the page where the Introduction is printed, on which the number 3 is placed. After that, all pages, including appendices, are numbered.

A space equal to two intervals is placed between the title of the chapter and the title of the paragraph of this chapter, and the title of the paragraph must not be separated from the text of this paragraph by a space. The titles of paragraphs shall be separated from the text of the previous paragraph by a space equal to two intervals. Each chapter, as well as the introduction, conclusions, appendices, and the list of used literature, begin on a new page. The word Chapter is not to be written. Chapters have ordinal numbers within the entire work, designated by Arabic numerals (for example: 1, 2, 3), followed by a period.

The word **PARAGRAPH** or the paragraph symbol (§) is not placed in the title. Paragraphs have ordinal numbers within the chapters, designated by Arabic numerals (for example: 1.1. and 1.2.).

Headings of chapters and paragraphs in the text must be centered; a period shall not be placed at the end of the title of the chapter and paragraph. It is not allowed to hyphenate (transfer) a part of a word in a heading. 4.5. The numbering of tables and figures can be running (continuous) or relate to the number of the chapter and paragraph. For example, if a table or a figure is included in the text of the first paragraph of the second chapter, the numbering is as follows: Table 2.1.1., Fig. 2.1.1.

The last digit means the ordinal number of the table (or figure) in this paragraph.

The table is to be placed as the next page after the first mention of it in the text.

Recommended literature.

Main literature:

1. Medical Rehabilitation: A Textbook / V. Ya. Latysheva, V. B. Smychek, N. V. Galinovskaya, A. S. Barbarovich. — Minsk: Higher School Press, 2020. — 352 pp. — ISBN 978-985-06-3232-6. — Text: electronic version // Digital Educational Resource IPR SMART: [website]. — URL: <https://www.iprbookshop.ru/119996.html>
2. Rehabilitation after Diseases: A Comprehensive Reference Manual / L. F. Gaidarov, G. Yu. Lazareva, V. V. Leonkin et al. — Saratov: Nauchnaya kniga, 2019. — 702 pp. — ISBN 978-5-9758-1834-8. — Text: electronic version // Digital educational resource IPR SMART: [website]. — URL: <https://www.iprbookshop.ru/80185.html>

Additional literature:

1. Rehabilitation of individuals with disabilities across various medical categories: a textbook / V. S. Shtokolok, N. A. Dubrovia, L. A. Boyarskaya, A. A. Tokmakov; edited by V. S. Shtokolok. — Yekaterinburg: Publishing House of Ural University, 2018. — 136 pp. — ISBN 978-5-7996-2322-7. — Text: electronic version // Digital Educational Resource IPR SMART: [website]. — URL: <https://www.iprbookshop.ru/106508.html>
2. Fedorova, T. N. Comprehensive Rehabilitation for Patients and Persons with Disabilities: A Textbook / T. N. Fedorova, A. N. Nalobina, N. N. Lazareva. — Omsk: Siberian State University of Physical Culture and Sports, 2012. — 170 pp. — Text: electronic format // Digital Educational Resource IPR SMART: [website]. — URL: <https://www.iprbookshop.ru/64975.html>
3. Fedorova, T. N. Development and Implementation of an Individual Rehabilitation Program for Patients/Personnel with Disabilities: A Textbook / T. N. Fedorova, A. N. Nalobina. — Saratov: APAR Media, 2019. — 510 pp. — ISBN 978-5-4497-0001-8. — Text: electronic version // Digital educational resource IPR SMART: [website]. — URL: <https://www.iprbookshop.ru/82674.html>

Internet resources:

1. <http://ruddoctor.net> / – Medical portal;
2. <http://www.e-reading.club> / – Comprehensive online library;
3. <https://dic.academic.ru> / – Dictionaries and encyclopedias;
4. <https://roszdravnadzor.gov.ru> / – Federal Service for Healthcare Supervision;
5. <https://www.rmj.ru> / – Russian Medical Journal

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INTRODUCTION

The purpose of studying the discipline "Medical Rehabilitation" is to develop students' competencies aimed at solving problems related to ENT pathology by providing high-quality qualified assistance and necessary for independent work by an otorhinolaryngologist.

The main objectives of studying the discipline are:

- ✓ Improvement of theoretical knowledge on anatomical and physiological features of human ENT organs, etiological and pathogenetic mechanisms, clinical manifestations of major diseases of the ENT organs;
- ✓ Improvement of knowledge on clinical, laboratory and functional diagnostics of diseases of ENT organs, in order to develop skills and abilities to evaluate research results for diagnosis, differential diagnosis, disease prognosis, and selection of adequate treatment.
- ✓ Improvement of knowledge, skills and abilities in methods of treatment of diseases of the ENT organs, in matters of prevention taking into account age characteristics; dispensary patients with chronic diseases;
- ✓ Improvement of knowledge on pharmacotherapy, the basics of pharmacotherapy in otolaryngology; application of physiotherapy in otolaryngology, indications and contraindications to sanatorium-resort treatment; the basics of dietary nutrition and dietotherapy;
- ✓ Improvement of knowledge, skills, abilities on the basics of the organization and provision of emergency care in urgent conditions.

BASICS OF MEDICAL REHABILITATION. BASICS OF PHYSIO THERAPY.

The practical lesson discusses the concept of rehabilitation, the purpose, the main objectives, types of rehabilitation (pedagogical, medical, social, domestic, professional, psychological). The issues of disability are addressed. The concept of medical rehabilitation is revealed as a complex of medical and preventive measures aimed at the maximum possible restoration or compensation of impaired or completely lost functions as a result of disease or injury, the objectives of medical rehabilitation: full restoration of the functional capabilities of various organs and systems, and the musculoskeletal system, the development of compensatory capabilities in the conditions of daily life and work, the restoration of household capabilities. The issues of the organization of medical rehabilitation, the concepts of "rehabilitation potential", "rehabilitation prognosis" and "rehabilitation diagnosis", who and on what basis makes the rehabilitation diagnosis. Assessment tools: scales. Means of medical rehabilitation, with the help of which medical rehabilitation is carried out: therapeutic physical culture, massage, physiotherapy, acupuncture, diet therapy, pharmacotherapy, psychotherapy, manual therapy, reconstructive surgery, speech therapy, apitherapy, etc. The basic principles of medical rehabilitation: stage, complexity. individual approach, continuity. In a practical lesson, students learn about the stages of medical rehabilitation (preventive, inpatient, outpatient, sanatorium-resort, and metabolic) and their goals. They also learn how to identify the stages of medical rehabilitation. They discuss the concept of multidisciplinary rehabilitation teams, their composition, and the principles of their organization in hospitals, day hospitals in outpatient clinics, and rehabilitation centers. Students develop the skills to create a medical rehabilitation program and identify the stages of medical rehabilitation.

Situational tasks on the topic.

1. A woman, 46 years old. She became ill acutely. 6 days after suffering from influenza, she began to feel a tightening sensation in the left half of her face and pain in her neck. The next morning, she noticed a facial asymmetry. When she visited a doctor's office, a neurologist diagnosed her with left facial nerve neuritis. She was referred to a hospital. On the same day, she was admitted to a neurological department.

- Question 1: When is it appropriate to start rehabilitation measures?
 Question 2: Determine the motor mode of MR;
 Question 3: What methods of MR are used in this pathology at the polyclinic stage?;
 Question 4: Tasks of the metabolic stage;
 Question 5: Who determines the indications for massage?

2. Woman, 33 years old. Acute onset of illness. Complaints of headache, dizziness when turning in the cervical department. When contacting the neurologist was appointed: NSAIDs, vitamins, vascular treatment. Against the background of the carried out therapy for 10 days the condition with negative dynamics. Complains of sleep disorders, during the examination tearful, asthenic, began to bother prosthetic teeth. Anamnesis: prosthetics of the lower and upper jaws were completed 1 month before the disease.

- Question 1: Tactics of a neurologist;
 Question 2: Where should medical rehabilitation be carried out?;
 Question 3: Means of medical rehabilitation at this stage;
 Question 4: Principles of medical rehabilitation;
 Question 5: On the basis of what document is the rehabilitation diagnosis issued?

3. Patient, 27 years old, diagnosis: Trigeminal neuralgia, lesion of the 1,2,3 branches on the left. In the anamnesis: for 3 months, since November, he has been experiencing periodic shooting pains in the left facial area, which are provoked by talking and eating. Over the past 2 weeks, the frequency of these attacks has increased.

- Question 1: At what stage is it recommended to carry out rehabilitation measures?;
 Question 2: What methods can be used in the medical rehabilitation program?;
 Question 3: At what stage is it advisable to start medical rehabilitation?;
 Question 4: Is it advisable to recommend a sanatorium-resort stage to the patient?;
 Question 5: Who determines the indications for massage at the polyclinic stage?;

4. A 58-year-old woman. Complaints of T-38.5, dry, frequent cough that worsens when lying down. She became ill 3 weeks ago with T-37.2, headache, and runny nose. After treatment with nazivin and paracetamol, her condition improved on the 6th day. A week after recovery, she suffered from hypothermia (waiting for a bus for 40 minutes). The next day, there was a sharp dry cough, headache, shortness of breath, and a fever of 38.9. A neighbor recommended a course of amoxicillin. Despite self-treatment, the fever persisted for 3 days at 37.8, and the cough persisted at night. She called an ambulance.

- Question 1: At what stage should medical rehabilitation measures be started?;
 Question 2: What principles of medical rehabilitation are acceptable here?;
 Question 3: Who determines the indications for massage in a hospital?;
 Question 4: Who determines the rehabilitation diagnosis?;
 Question 5: What medical rehabilitation tools are used in a hospital stage?;

5. A 57-year-old man. Two years ago, he underwent inpatient treatment for the following diagnosis: Spinal injury (fracture of T 10,11), severe spastic lower paraparesis, and pelvic disorders.

- Question 1: Determine the stage of medical rehabilitation;
 Question 2: Define the objectives of this stage;
 Question 3: List the specialists of the rehabilitation team at the inpatient stage for this condition;
 Question 4: Who determines the indications for massage?;
 Question 5: What additional physical therapy methods are indicated?;

Control questions.

1. Fundamentals of medical rehabilitation.
2. Organization of medical rehabilitation
3. Legal basis and features of the organization of medical rehabilitation in the Russian Federation: Federal Law No. 323-FZ dated November 21, 2011 "On the Fundamentals of Health Care for Citizens of the Russian Federation" Article 40.
4. Order No. 1705n of the Ministry of Health of the Russian Federation dated December 29, 2012. "On the procedure for providing medical rehabilitation" (in outpatient and polyclinic conditions, in day hospitals, and in hospitals). Order Ministry of Labor of the Russian Federation Order No. 572n dated 03.09.2018 "On Approval of the Professional Standard "Specialist in Medical Rehabilitation"
5. Basic principles of medical, social, and professional rehabilitation.
6. Stages of medical rehabilitation.
7. International Classification of Functioning, Disability, and Health (ICF), limitations of life activities and health (WHO, 2007), and its significance in medical rehabilitation.
8. The concept of disability.
9. Rehabilitation diagnosis, rehabilitation potential, and rehabilitation prognosis. Individual rehabilitation program (IRP). Definition of the concept, goals, principles of IRP implementation.
10. Fundamentals of physiotherapy.
11. Categories of physiotherapy: therapeutic physical factors, physical method of treatment. Methodology of physiotherapeutic procedure.
12. Basic principles of therapeutic application of physical factors.
13. General contraindications for physiotherapy.

ELECTROTHERAPY. MAGNETOTHERAPY.

Physiotherapy is a branch of medicine that studies the effects of natural and artificial physical factors on the body for therapeutic and preventive purposes. Classification physical factors:

1. Natural physical factors (natural): peloidotherapy, water treatment, cryotherapy, balneotherapy, laser .
2. Artificial physical factors (artificial): electrotherapy, light therapy The basis of the action of a physical factor is a reflex, which, thanks to the afferent, efferent paths and the suction neuron, is closed in a reflex arc. The humoral aspect of the action of physical factors: All physical factors in one system or another change the morphofunctional state of the endocrine organs and the metabolism of hormones. Therapeutic doses of physical factors stimulate the activity of the endocrine organs, while higher doses change the amount of hormones. The nervous and humoral mechanisms of the action of a physical factor are closely related. Skin and the effect of physical factors on the body: Skin is the entrance gate for most physical factors, and for some (laser, UFO, EHF – it s the only body directly interacting with the physical factor); Barrier function; Depo distribution effect; Modeling influence change the direction and spectrum of action of physical factors. General contraindications to the appointment of physical factors.
 1. Acute disease with a temperature above 38 degrees;
 2. Bleeding of various origins;
 3. Benign and malignant neoplasms;
 4. Leukemias;
 5. Decompensation of the cardiovascular, respiratory, renal and hepatic systems;
 6. Cachexia;
 7. Active tuberculosis;

Each physical factor has its own individual, specific contraindications Galvanization- the use of a therapeutic purpose of constant alternating current of low strength and low voltage. The current passes through the ducts of sweat and sebaceous glands, intercellular spaces of the epidermis and further along the path of the least ohmic resistance, through blood and lymph vessels, intercellular fluid, the shells of nerve and muscle fibers spreads throughout the body.

The basis of the effect on the body is the directed movement of electrically charged particles (ions, electroions, and polar molecules) in tissues and intercellular fluid, as well as polarization phenomena. These changes affect the functional activity of cells, their colloidal state, the rate of cellular and tissue metabolism, and reparative processes. The physiological effect is manifested locally, metamerically, and also generally. Under the influence of therapeutic current densities (0.01- 0.1 mA/cm²), it enhances blood and lymph circulation, increases the permeability of histohematic barriers, and the resorption and regenerative capacity of tissues increases, the activity of ions in them increases, metabolic, trophic, and transport processes are stimulated, the ratio of the main nervous processes is normalized, the release of mediators and biologically active substances is observed, the activity of internal organs changes, the resolution of inflammatory infiltrates increases, and pain sensations decrease. Drug electrophoresis is a combined effect of direct current and the drugs administered through it on the body. Currently, various types of pulsed currents and rectified alternating currents are used for electrophoresis, along with galvanic currents. Under the influence of a current, drugs acquire a number of features: a longer and more active effect, the ability to create a high concentration of drugs in the pathological focus, and a significant reduction in the frequency of side effects. In medical practice, local anesthetics (novocaine, dicaine), antispasmodic and vasodilating substances (papaverine, no-shpa, euphyllin, dibazole, gangleron), vitamins (ascorbic acid, B1, B12, nicotinic acid), simple compounds (potassium iodide, sodium chloride, magnesium sulfate, calcium chloride) are used for electrophoresis., sodium bromide, copper sulfate), antibiotics, sulfonamides, some enzymes, amino acids, psychotropic drugs and other medicinal substances. Indications: injuries and diseases of the peripheral nervous system (plexites, radiculitis, neuritis, neuralgia, and neuromyositis), diseases and consequences of infectious, vascular, and traumatic lesions of the central nervous system, neurasthenia, diseases of the gastrointestinal tract that are accompanied by impaired motor and secretory functions, chronic inflammatory processes in various organs and tissues, certain dental and eye diseases, and diseases of the cardiovascular system, such as hypertension and hypotension. IHD, atherosclerosis, fractures of bones, chronic osteomyelitis. Contraindications: malignant neoplasms, acute purulent inflammatory processes, disorders skin sensitivity, intolerance of the current. Technique and methodology. The current is supplied with the help of current-carrying wires-electrodes, which are imposed on top of a hydrophilic laying, at least 1 cm thick. The current density for local effects is 0.03-0.1 mA/cm², and for segmental and general effects it is 0.01-0.05 mA/cm². The duration of the procedure is 10-20 minutes, and for local effects it is up to 30-40 minutes. The course consists of 10-25 procedures, and if necessary, it can be repeated after 1-2 months.

Situational tasks on the topic.

1. A 34-year-old man has been in the intensive care unit for 2 weeks. with a diagnosis of TBI. Brain injury on the right, severe. Sopor. Fracture of the branch of the lower plexus. The condition after the reposition of the fragments. Fracture of the left humerus. Pressure sores in the sacrum area.

Question 1: To speed up the regeneration process after fractures, select a physical effect;

Question 2: What is the best way to treat a pressure sore?;

Question 3: Is massage recommended for this condition?;

Question 4: Is physical therapy recommended for patients with stable conditions?;

Question 5: What are ideomotor exercises?;

2. A 25-year-old woman has been observed for about 17 years in a polyclinic with a diagnosis of BA, atopic dermatitis in remission. She is currently on a vacation package at a resort in Gelendzhik.

Question 1: A laser has been prescribed. What methods should be chosen?;

Question 2: Is cryotherapy indicated in this case?;

Question 3: What types of showers are recommended?;

Question 4: List the types of internal use of mineral waters;

Question 5: List the groups of mineral waters;

3. A 15-year-old boy is being observed by a polyclinic gastroenterologist with a diagnosis of chronic hyperacid gastritis. Diverticulitis. He has been sent to a sanatorium on a medical voucher.

Question 1: Which resorts are indicated in this case?;

Question 2: Give methodological recommendations for taking mineral water;

Question 3: Is electro-sleep indicated?;

Question 4: What forms of physical training are recommended;

4. A 36-year-old woman. She bought a ticket to a sanatorium on her own. During a consultation with a therapist, it was determined that she had been observed by a gynecologist for 6 years with a diagnosis of chronic adnexitis, with exacerbations once a year; she was also observed by a neurologist with vegetative-vascular crises up to 2 times a year; and she had periodontitis and gingivitis.

Question 1: Are there any indications for magnetotherapy? What is the effect of magnetotherapy?

Question 2: Indications of magnetotherapy in dentistry;

Question 3: What therapeutic baths are recommended in this case?;

Question 4: Types of application of mineral water in dentistry;

Question 5: What massage techniques are indicated?

5. A 62-year-old man. He was observed by a cardiologist with a diagnosis of IHD. Stage 2 angina. Rare extrasystole. HD 2B. He is undergoing spa treatment.

Question 1: What resorts and sanatoriums are recommended?

Question 2: What regimen is prescribed for the patient?

Question 3: What types of training are recommended?;

Question 4: Is magnetotherapy indicated in this case?;

Question 5: What therapeutic baths are recommended?

Control questions:

1. Electrotherapy. Therapeutic effect. Therapeutic effects. Indications. Contraindications. Parameters.

2. Constant current electrotherapy: galvanization, drug electrophoresis.

3. Central impulse electrotherapy: electro-sonotherapy, transcranial electro-stimulation.

4. Pulse electro-therapy of peripheral effect: diadynamotherapy, short-pulse electro-analgesia.

5. Low-frequency electro-therapy: amplitude-sterapy, myo-electro-stimulation, interference therapy.

6. Medium-frequency electro-therapy: local darsonvalization, ultratone therapy.

7. Ultra-high-frequency therapy.

8. Ultra-high-frequency electrotherapy: decimeter wave therapy (DMT therapy), centimeter wave therapy (CMT therapy), extremely high-frequency therapy (EHF therapy).

9. Magnetotherapy. Therapeutic effect. Therapeutic effects. Indications. Contraindications. Parameters.

PHOTOTHERAPY. THERAPEUTIC USE OF MECHANICAL FACTORS OF NATURE. HYDROTHERAPY. THERMOTHERAPY.

The role of massage in the complex of rehabilitation measures in medical institutions of various profiles. Functional and morphological changes in the body under the influence of massage.

The physiological effect of massage. Indications and contraindications. General methodological aspects of massage: hygienic foundations for conducting massage, requirements for the room, the massage therapist's workplace, and the massage therapist themselves.

Massage is the primary means of improving the body. The basic principles of massage. Classification of massage: depending on the tasks, the nature of the procedure, and the area of application. Massage techniques and rules for their implementation. Basic and auxiliary techniques, their physiological effect on the body of the person being massaged, and methodological instructions for each technique. Massage of individual body parts: techniques, methodological instructions, indications, contraindications, and the position of the person being massaged and the masseur during massage. Types of massage. Algorithm for prescribing massage. Massage techniques for various diseases and injuries during the rehabilitation stages.

Control questions.

1. Phototherapy. Therapeutic effect. Therapeutic effects. Indications. Contraindications. Parameters.
2. Ultraviolet radiation: Long-, Medium-, Short-wave. Blood irradiation with a short-wave spectrum of ultraviolet radiation (autotransfusion of irradiated blood- AUVF).
3. Laser radiation: red and infrared. Intravenous blood irradiation with a laser (VLK).
4. Therapeutic application of mechanical factors. Therapeutic effect. Therapeutic effects. Indications. Contraindications. Parameters.
5. Therapeutic massage.
6. Remote shock wave therapy.
7. Therapeutic use of ultrasound.
8. Drug ultra-phonophoresis.
9. Hydrotherapy. Therapeutic effect. Therapeutic effects. Indications. Contraindications. Parameters.
10. Showers: low, medium and high pressure; indifferent, warm and hot showers, contrast showers, underwater shower-massage.
11. Baths: fresh baths (warm, cold), contrast baths. Aromatic baths. Gas baths.
12. Baths: steam bath, dry-air bath (sauna).
13. Thermotherapy. Therapeutic effect. Therapeutic effects. Indications. Contraindications. Parameters.
14. Heat therapy: paraffin-ozokerite treatment.
15. Cryotherapy: water-containing cryoagents: ice cubes, cryopacks, cryoapplicators, hypothermic thermal pads; cold metal junction thermoelectric contact of devices, gases or their mixtures (chloroethyl, carbon dioxide, nitrogen and air), cold pencils. General cryotherapy (extreme cryotherapy).

RESORT THERAPY. MEDICAL REHABILITATION IN THE RESORT AND SPA SERVICES. MANUAL THERAPY. MEDICAL NUTRITION.

1. Resort therapy. Therapeutic effect. Therapeutic effects. Indications. Contraindications. Parameters.
2. Climatotherapy: aerotherapy, speleotherapy, air baths, heliotherapy, thalassotherapy.
3. Balneotherapy.
4. Peloidotherapy. Classification of therapeutic muds by origin sulfidnoil, sapropel, peat, sopochny mud.
5. Medical rehabilitation in the structure of sanatorium care.
6. Selection and referral of patients for sanatorium treatment, registration documentation.
7. Manual therapy.
8. Therapeutic nutrition.

9. Therapeutic nutrition in medical rehabilitation programs.

REFLEXOTHERAPY. PSYCHOLOGICAL REHABILITATION. MEDICAL CONTROL IN MEDICAL REHABILITATION.

Medical control (VC) ensures the proper use of physical education and sports facilities in order to improve and strengthen health, improve physical development and physical fitness of the population, and improve the functioning of all vital systems of the body, the level of fitness and physical performance. That is why it is mandatory for everyone without exception. for athletes and athletes, as well as for patients of outpatient and inpatient healthcare institutions, i.e. in the daily clinical practice of a doctor. Physical development is determined by a complex of morphofunctional and psychological properties of the body, which simultaneously characterize a person's physical performance. The size and proportions of the human body (including the specific features of the morphological construction of the skeleton, muscles, internal organs, and systems) depend on age and gender. Physical development is also influenced by environmental conditions, including natural and socioeconomic factors.

On the one hand, the current task of medicine is to select and dose individual loads in rehabilitation and health-improving activities, and on the other hand, to monitor their effectiveness. Accordingly, the following aspects of VK can be distinguished:

- 1) a system for dynamic monitoring and assessment of the health status of individual patients, both in the pre-nosological period and with various diseases and injuries at the stages of medical rehabilitation;
- 2) a system for medical supervision and medical support for individuals engaged in physical culture and sports (within the framework of SM).
- 3) Physical development is considered as a set of morphological and functional features, allowing to determine the reserve of physical strength, endurance and performance of the body. The concept of "body composition" includes the sizes, shapes, proportions and features of the mutual arrangement of body parts, as well as the features of the development of bone, fat and muscle tissues. The main methods of research of physical development are the collection of anamnesis, external examination (somatoscopy) and measurement of morphological and functional indicators (anthropometry). Physical development is assessed using standards, indices, and correlation methods.

1. Reflexotherapy.
2. Modern methods of reflexotherapy. Physiotherapy. Therapeutic effect. Therapeutic effects. Indications. Contraindications. Parameters
3. Psychological rehabilitation. The main objectives of psychological rehabilitation. Methods of psychological rehabilitation.
4. Traditional methods. Apitherapy. Ampelotherapy, Hirudotherapy. Psammotherapy. Enotherapy. Phytotherapy
5. Medical control in medical rehabilitation.
6. Diagnosis of physical development and the patient's functional state.
7. Assessment scales for the integral assessment of the patient's condition. Standard: Acute and Chronic Health Evaluation (APACHE III) severity scores, Numerical Pain Rating Scale (NPRS), Physiological Index (PI), Respiratory Index (ResI).

THERAPEUTIC PHYSICAL CULTURE (TFP). HEALTH-IMPROVING METHODS. REHABILITATION OF DISABLED PERSONS.

1. Therapeutic physical culture (TFK). Basic provisions and principles of therapeutic physical culture.

2. Organization of TFK in the Russian Federation: Order of the Ministry of Health of the Russian Federation dated 20.08.2001 No. 337 "On measures for further development and improvement of sports medicine and therapeutic physical culture". Medical documentation in departments and offices of therapeutic physical culture (f. 0.42/u).
3. Principles and methods of therapeutic physical culture.
4. Kinesitherapy.
5. Occupational therapy. Mechanisms of action. Parameters: occupation of patients. Types of employment.
6. Orthotherapy.
7. Wellness training. Recreational physical activity and adaptation mechanisms.
8. Individual rehabilitation program for the disabled.
9. Technical means in rehabilitation of the disabled.

MEDICAL REHABILITATION IN CARDIOLOGY. MEDICAL REHABILITATION IN PULMONOLOGY.

1. The model of cardiorehabilitation in the Russian Federation.
2. Standard of medical care for patients with acute myocardial infarction Ministry of Health and Social Development of the Russian Federation dated 09/06/2005, No. 548
3. Characteristics of functional classes of patients with coronary heart disease. Kinesiotherapy. Dosage physical activity, depending on the functional class. Therapeutic swimming modes. Physical methods of treatment. Psychotherapy. Therapeutic nutrition. Evaluation of effectiveness. Contraindications.
4. Medical rehabilitation in pulmonology.
5. Fundamentals of pulmonary rehabilitation in the Russian Federation, the Order of providing medical care to patients in the field of pulmonology, approved by Order No. 916n of the Ministry of Health of the Russian Federation dated November 15, 2012.
6. The purpose and objectives of medical rehabilitation for patients with COPD. Standards for providing medical care to patients with COPD (chronic obstructive pulmonary disease). Stages of COPD development. System of functional classes of patients with COPD. Physical methods of treatment. Kinesiotherapy. Psychotherapy. Therapeutic nutrition. Contraindications. Performance criteria.

MEDICAL REHABILITATION IN GASTROENTEROLOGY AND ENDOCRINOLOGY. MEDICAL REHABILITATION IN ONCOLOGY. MEDICAL REHABILITATION IN INFECTIOUS DISEASES. MEDICAL REHABILITATION IN NEUROLOGY.

1. Fundamentals of medical rehabilitation in gastroenterology. Tasks of medical rehabilitation in gastroenterology. Order of providing medical care to the population, Order of the Ministry of Health of the Russian Federation from 12.11.2012, 906n. Order of providing medical care to the population in the field of "gastroenterology".
2. Fundamentals of medical rehabilitation in endocrinology. Tasks of medical rehabilitation in endocrinology. Pr-z of the Ministry of Health of the Russian Federation dated 12.11.2012 №899n. The procedure for providing medical care for the adult population in the field of endocrinology.
3. Fundamentals of medical rehabilitation in oncology. Kinesiotherapy. Physical methods of treatment. Psychotherapy. Therapeutic nutrition. Social rehabilitation. Efficiency criteria.
4. Fundamentals of medical rehabilitation in infectious diseases.
5. Medical rehabilitation in neurology. The global model of neurorehabilitation. Organization of neurorehabilitation in the Russian Federation: Pr-z of the Ministry of Health of the Russian Federation No. 926n. and No. 928n. "The procedure for providing medical care to the adult

population with diseases of the nervous system and providing medical care to patients with acute cerebrovascular accident." Patient groups, shown for medical rehabilitation. Contraindications for medical rehabilitation.

**MEDICAL REHABILITATION IN TRAUMATOLOGY AND ORTHOPEDICS.
MEDICAL REHABILITATION IN SURGERY. MEDICAL REHABILITATION IN
OBSTETRICS AND GYNECOLOGY. MEDICAL REHABILITATION IN
PEDIATRICS.**

- 1) Fundamentals of medical rehabilitation in traumatology and orthopedics. The procedure for providing medical care in the field of traumatology and orthopedics. Pr- z of the Ministry of Health of the Russian Federation dated 12.11.2012 No. 901n. About the approval of the order. Providing medical care to the population according to the profile. "Traumatology and orthopedics". Indications and contraindications for the appointment of medical rehabilitation. Pathophysiological basis of injuries of the musculoskeletal system. Periods of the treatment process in case of damage to the musculoskeletal system. Syndromes that form in the post-traumatic and post-operative periods.
- 2) Fundamentals of medical rehabilitation in surgery. The procedure for providing medical care to the population in the field of surgery. Order of the Ministry of Health of the Russian Federation dated November 15, 2012. Pathophysiological features of surgical trauma. Indications and contraindications for the appointment of medical rehabilitation.
- 3) Fundamentals of medical rehabilitation in obstetrics and gynecology. Order of rendering medical care in the profile "obstetrics and gynecology". Pr-z Mz RF dated 01.11.2012. No. 572n. Indications and contraindications to the appointment of medical rehabilitation. The most common extragenital diseases during pregnancy.
- 4) Medical rehabilitation in pediatrics. Order of rendering medical care in the profile pediatrics. Order of the Ministry of Health of the Russian Federation dated 16.04.2012. No. 366n. "On Approval of the Procedure for Providing Pediatric Care". Indications and Contraindications for Medical Rehabilitation. Features of the Physiology of the Child's Body.

Recommended literature.

Main literature:

1. Medical Rehabilitation: A Textbook / V. Ya. Latysheva, V. B. Smychek, N. V. Galinovskaya, A. S. Barbarovich. — Minsk: Higher School Press, 2020. — 352 pp. — ISBN 978-985-06-3232-6. — Text: electronic version // Digital Educational Resource IPR SMART: [website]. — URL: <https://www.iprbookshop.ru/119996.html>
2. Rehabilitation after Diseases: A Comprehensive Reference Manual / L. F. Gaidarov, G. Yu. Lazareva, V. V. Leonkin et al. — Saratov: Nauchnaya kniga, 2019. — 702 pp. — ISBN 978-5-9758-1834-8. — Text: electronic version // Digital educational resource IPR SMART: [website]. — URL: <https://www.iprbookshop.ru/80185.html>

Additional literature:

1. Rehabilitation of individuals with disabilities across various medical categories: a textbook / V. S. Shtokolok, N. A. Dubrovia, L. A. Boyarskaya, A. A. Tokmakov; edited by V. S. Shtokolok. — Yekaterinburg: Publishing House of Ural University, 2018. — 136 pp. — ISBN 978-5-7996-2322-7. — Text: electronic version // Digital Educational Resource IPR SMART: [website]. — URL: <https://www.iprbookshop.ru/106508.html>
2. Fedorova, T. N. Comprehensive Rehabilitation for Patients and Persons with Disabilities: A Textbook / T. N. Fedorova, A. N. Nalobina, N. N. Lazareva. — Omsk: Siberian State University of Physical Culture and Sports, 2012. — 170 pp. — Text: electronic format // Digital Educational Resource IPR SMART: [website]. — URL: <https://www.iprbookshop.ru/64975.html>
3. Fedorova, T. N. Development and Implementation of an Individual Rehabilitation Program for

Patients/Personnel with Disabilities: A Textbook / T. N. Fedorova, A. N. Nalobina. — Saratov: APAR Media, 2019. — 510 pp. — ISBN 978-5-4497-0001-8. — Text: electronic version // Digital educational resource IPR SMART: [website]. — URL: <https://www.iprbookshop.ru/82674.html>

Internet resources:

1. <http://rudoctor.net> / – Medical portal;
2. <http://www.e-reading.club> / – Comprehensive online library;
3. <https://dic.academic.ru> / – Dictionaries and encyclopedias;
4. <https://roszdravnadzor.gov.ru> / – Federal Service for Healthcare Supervision;
5. <https://www.rmj.ru> / – Russian Medical Journal