

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation

BANK OF ASSESSMENT TOOLS FOR DISCIPLINE/PRACTICE

MEDICAL REHABILITATION

Training program (specialty): **31.05.03 DENTISTRY**

Department: **MEDICAL REHABILITATION**

Mode of study: **FULL-TIME**

Nizhniy Novgorod
2021

1. Bank of assessment tools for the current monitoring of academic performance, mid-term assessment of students in the discipline / practice

This Bank of Assessment Tools (BAT) for the discipline "Medical rehabilitation" is an integral appendix to the working program of the discipline "Medical rehabilitation". All the details of the approval submitted in the WPD for this discipline apply to this BAT.

2. List of assessment tools

The following assessment tools are used to determine the quality of mastering the academic material by students in the discipline/ practice:

No.	Assessment tool	Brief description of the assessment tool	Presentation of the assessment tool in the BAT
1	Test	A system of standardized tasks that allows you to automate the procedure of measuring the level of knowledge and skills of a student	Bank of test tasks
2	Situational tasks	A method of control that allows you to assess the criticality of thinking and the degree of the material comprehension, the ability to apply theoretical knowledge in practice.	List of tasks
3	Interview	A tool of control organized as a special conversation between the teacher and the student on topics related to the discipline being studied, and designed to clarify the amount of knowledge of the student on a specific section, topic, problem, etc.	Questions on topics/sections of the discipline

3. A list of competencies indicating the stages of their formation in the process of mastering the educational program and the types of evaluation tools

Code and formulation of competence*	Stage of competence formation	Controlled sections of the discipline	Assessment tools
УК-9, ОПК-8	Current	Section 1. General principles of rehabilitation. Methods and means of medical rehabilitation.	
		Topic 1. Features of examination in medical rehabilitation. Assessment of physical development.	Bank of test tasks
		Topic 2. Methods of examination in medical rehabilitation. Definition of rehabilitation potential. Main scales and questionnaires used in medical rehabilitation. International classification of functioning.	Bank of test tasks
		Topic 3. Methods of examination in medical rehabilitation. Assessment of functional state at the stages of medical	Bank of test tasks

		rehabilitation. Functional load samples.	
ОПК-8, ПК-8, ПК-14	Current	Section 2. Basic principles of physiotherapy. Medical application of factors electromagnetic, mechanical and thermal nature in the medical system rehabilitation	
		Topic 4. Methods of therapeutic use of physiotherapeutic factors of direct and alternating current, pulse electrotherapy.	Bank of test tasks
		Topic 5. Methods of therapeutic use of physiotherapeutic factors of high-frequency, ultra-high-frequency and ultra-high-frequency therapy. Magnetotherapy. Therapeutic application of mechanical factors of electro-magnetic nature.	Bank of test tasks
		Topic 6. Methods of therapeutic application of physiotherapeutic factors: optical radiation, artificial aerodisperse media. Water, mud, heat treatment. Spa treatment.	Bank of test tasks
УК-9, ОПК-3, ОПК-8, ПК-8, ПК-14	Current	Section 3. Features of medical rehabilitation of some categories of sick and disabled people.	
		Topic 7. Physiotherapy and medical rehabilitation of inflammatory processes and traumatic injuries of the maxillofacial region.	Bank of test tasks List of tasks
УК-9, ОПК-3, ОПК-8, ПК-8, ПК-14	Mid-term	Section 1. General principles of rehabilitation. Methods and means of medical rehabilitation. Section 2. Basic principles of physiotherapy. Medical application of factors electromagnetic, mechanical and thermal nature in the medical system rehabilitation Section 3. Features of medical rehabilitation of some categories of sick and disabled people.	Bank of test Tasks List of tasks

4. The content of the assessment tools for current control

4.1 Bank of test tasks

Test tasks with answer options	№ of the competency that this test task is aimed at developing
Section 1. General principles of rehabilitation. Methods and means of medical rehabilitation.	УК-9, ОПК-8
1. The main signs of physical development include:	

- a) body length
 - b) body weight
 - c) chest circumference
 - d) lung capacity
 - e) all of the above
2. Methods for assessing physical development include:
- a) anthropometric standards
 - b) indices
 - c) correlations
 - d) somatovegetative
 - e) all of the above
3. Quetelet index takes into account:
- a) growth
 - b) thigh circumference
 - c) weight
 - d) chest volume
 - e) all of the above
4. Life index takes into account:
- a) growth
 - b) weight
 - c) bust
 - d) lung capacity
 - e) all of the above
5. Indicators for determining biological age include:
- a) growth of pubic hair
 - b) swelling of the nipples
 - c) hair growth in the armpits
 - d) fracture of the voice
 - e) circumference of the chest
6. General requirements for functional tests:
- a) safety for health;
 - b) specificity for the system under study;
 - c) adequacy to the capabilities of the system under study;
 - d) dosing accuracy;
 - e) all of the above
7. Clinical criteria for termination of exercise testing are:
- a) achieving the maximum allowable heart rate;
 - b) an attack of angina pectoris;
 - c) a drop in systolic blood pressure or an increase of more than 220 mm Hg. Art.;
 - d) severe shortness of breath;
 - e) all of the above.
8. To assess exercise tolerance in patients with coronary artery disease do not use:
- a) 6-minute walk test;
 - b) 3-minute walk test;
 - c) treadmill test;
 - d) bicycle ergometry.
9. Sample PWC 170 means:
- a) work with a load on a bicycle ergometer;
 - b) work under load on the step;
 - c) work done in 170 s;
 - d) load power at a heart rate of 170 beats/min;
 - e) load power on a bicycle ergometer.
10. ECG criteria for termination of the exercise test are:
- a) decrease in the ST segment;

<ul style="list-style-type: none"> b) frequent extrasystole, paroxysmal tachycardia, atrial fibrillation; c) atrioventricular and intraventricular blockade; d) pronounced increase in heart rate; e) all of the above. 	
<p>Section 2. Basic principles of physiotherapy. Medical application of factors electromagnetic, mechanical and thermal nature in the medical system rehabilitation</p>	<p>OIK-8, IK-8, IK-14</p>
<ol style="list-style-type: none"> 1. The following symptom is characteristic of infrared hyperemia: <ul style="list-style-type: none"> a) red spots on the skin b) well-defined boundaries c) uniform reddening of the skin d) restoration of skin color 6 hours after irradiation 2. Specify the skin structures involved in the immunostimulating effect of long-wave ultraviolet irradiation: <ul style="list-style-type: none"> a) Langerhans cells b) melanocytes c) fibroblasts 3. Name the diseases in which the photosensitizing therapeutic effect of long-wave ultraviolet irradiation is used: <ul style="list-style-type: none"> a) vitiligo b) neurodermatitis c) epidermophytosis d) eczema 4. The maximum allowable area of skin irradiation in erythematous doses is equal to: <ul style="list-style-type: none"> a) 300-400 cm² b) 800 cm² c) 600 cm² d) 600-800 cm² 5. Name the main therapeutic effect of total UV exposure in suberythematous doses: <ul style="list-style-type: none"> a) anti-inflammatory b) vitamin-forming c) analgesic d) metabolic 6. Specify the therapeutic effect of AUFOK: <ul style="list-style-type: none"> a) mycotoxic b) analgesic c) immunomodulatory d) photosensitizing e) vasodilating 7. The penetration depth of infrared laser radiation is: <ul style="list-style-type: none"> a) 1-5 mm b) 1-2 cm c) up to 5-7 cm d) 10-15 cm 8. Aeroion therapy is a therapeutic application: <ul style="list-style-type: none"> a) positively charged air ions b) negatively charged air ions c) neutral air ions 9. The dispersed medium of aerosols is: <ul style="list-style-type: none"> a) gas b) liquid c) medicinal substance 10. After inhalation, the patient is recommended: 	

- a) rest for two hours
- b) do not speak loudly for an hour
- c) intensive breathing exercises
- d) breathing through the nose for two hours

Section 3. Features of medical rehabilitation of some categories of sick and disabled people.

УК-9, ОПК-3, ОПК-8, ПК-8, ПК-14

1. The means of medical rehabilitation in dentistry include:
 - a) physical therapy;
 - b) psychotherapy;
 - c) mechanotherapy;
 - d) all the answers are correct
2. The main tasks of physical therapy in the treatment of diseases and injuries of the maxillofacial region include:
 - a) countering concomitant trauma disorders of the respiratory, circulatory, digestive, metabolic and emotional disorders;
 - b) restoration of damaged tissues and organs, their functions (chewing, swallowing, speech, facial expressions, etc.);
 - c) strengthening of immunity and body defenses;
 - d) replenishment of the functions of the maxillofacial region.
3. Active exercises in diseases of the maxillofacial region are understood as:
 - a) exercises that the patient performs himself by straining the muscles and due to the mobility of the lower jaw;
 - b) exercises that the patient performs with outside help;
 - c) exercises in which movements are carried out only with self-help or with the help of the hands of a physical therapy instructor, as well as therapeutic and cosmetic massage techniques;
 - d) exercises using mechanical traction using forceps, shock absorbers, special devices aimed at improving muscle elasticity, increasing the volume of jaw movements.
4. What type of phototherapy is not used in the treatment of diseases of the maxillofacial region:
 - a) laser therapy;
 - b) infrared radiation;
 - c) long-wave ultraviolet irradiation;
 - d) short-wave ultraviolet irradiation.
5. Heat therapy includes:
 - a) paraffin therapy;
 - b) peloidotherapy;
 - c) cryotherapy;
 - d) halotherapy.
6. Contraindication for physiotherapy is not:
 - a) neoplasms of the oral cavity;
 - b) hyperthermia above 37.5 C;
 - c) systemic blood diseases;
 - d) purulent and inflammatory diseases of the oral cavity.
7. What techniques are used for facial massage?
 - a) stroking;
 - b) rubbing;
 - c) kneading;
 - d) tingling.
8. For purulent diseases of the maxillofacial region, you can use:
 - a) ultrasound therapy;
 - b) electrophoresis with novocaine;
 - c) fluctuation;
 - d) interference therapy.
9. For the nutrition of patients with diseases of the maxillofacial region, there are the following diets:

- a) table No.0;
- b) table No.2;
- c) table No.15;
- d) table No.7.

10. The total duration of the therapeutic gymnastics complex in the first period in patients with fractured jaw bones is:

- a) 4-7 minutes;
- b) 8-10 minutes;
- c) 12-16 minutes;
- d) 18-20 minutes.

Answers to the test

Section 1	Section 2	Section 3
1) a, b, c, d	1) a	1) d
2) a, b, c	2) a	2) a,b,d
3) a, c	3) a	3) a
4) a, b, c	4) c	4) c
5) a, b	5) b	5) d
6) e	6) c	6) d
7) e	7) c	7) d
8) b	8) b	8) c
9) d	9) a	9) d
10) e	10) b	10) c

4.2 List of tasks

Situational task №1.

The man is 25 years old. Diagnosis: right-sided fracture of the lower jaw. The fixation was carried out using aluminum wire tires. The second week since the injury. The general condition is satisfactory. Complaints of slight soreness in the fracture area. The swelling of soft tissues in the fracture area is visually noted. On palpation – pain in the fracture area. The "load" symptom is positive. Give methodological instructions for the preparation of the TE complex.

Situational task №2.

A 53-year-old man, diagnosed with Shoulder periarthrosis. Complaints of pain in the cervical spine, right shoulder joint and arm at rest and during movement, the severity of pain is 7/10 according to YOUR, antalgic posture is also expressed., active and passive movements in the shoulder joint in full. The patient is right-handed. The condition is satisfactory, motivated for restorative treatment.

Task:

1. Formulate the main tasks of rehabilitation
2. Formulate the goals of rehabilitation by SMART
3. List the means of physical therapy, the main types of physical exercises
4. List the necessary physiotherapy procedures

Situational task №3.

A patient with a closed fracture of the lower jaw (4th day after injury) with dental fixation of fragments was admitted to the rehabilitation department for treatment.

Task:

Which physiotherapy procedure is preferable to assign to the fracture area:

- 1) UHF magnetic field therapy,

- 2) UHF electric field therapy,
- 3) SMT therapy,
- 4) DDT therapy?

Write down the procedure you have chosen.

5. The content of the assessment tools of mid-term assessment

Mid-term assessment is carried out in the form of a credit

5.1 The list of control tasks and other materials necessary for the assessment of knowledge, skills and work experience

5.1.1. Questions for the credit in the discipline *Medical rehabilitation*

Question	Competence code (according to the WPD)
<ol style="list-style-type: none"> 1. Definition of the concept of "medical rehabilitation", general goals and objectives, indications. 2. Principles of medical rehabilitation 3. The concept of rehabilitation potential. Determination of rehabilitation potential. Algorithms of patient management depending on the type of rehabilitation potential. 4. Basic scales and questionnaires used in medical rehabilitation. 5. Setting rehabilitation goals. SMART goals. 6. Rehabilitation diagnosis. 7. Technologies and means of medical rehabilitation 8. Motion recovery technologies 9. International classification of functioning and disorders of vital activity – goals, structure. The concept of impaired functioning and disability from the standpoint of the ICF. Biopsychosocial model. Encoding in ICF. 10. Medical control in medical rehabilitation: content, goals, tasks, methods. 11. Somatoscopy, anthropometry. 12. Methods of physical development assessment (anthropometric standards method, index method, correlation method) 13. Assessment of joint mobility, muscle strength, muscle tone 14. Biomechanical methods of examination in medical rehabilitation (stabilometry, assessment of statodynamic parameters of walking, etc.) 15. Types of reactions to physical activity 16. Objectives of functional diagnostics in healthy individuals and in various 	<p>ОПК-8, ПК-8, ПК-14</p>
<ol style="list-style-type: none"> 17. Modern concepts of physiotherapy. The basic principles of the therapeutic use of physical factors. 18. Methods of therapeutic application of physiotherapeutic factors of direct and alternating current, pulsed electrotherapy. Indications and contraindications. Features of the patient's preparation for procedures, the approximate basis of actions during the release of procedures. 19. Methods of therapeutic application of physiotherapeutic factors of high-frequency, ultra-high-frequency and ultra-high-frequency therapy. Magnetic therapy. Therapeutic use of mechanical factors of electromagnetic nature. 20. Methods of therapeutic application of physiotherapeutic factors. Optical radiation, artificial aerodisperse media. Water, mud, heat treatment. Spa treatment. 	<p>ОПК-8, ПК-8, ПК-14</p>
<ol style="list-style-type: none"> 26. Features of the biomechanics of the lower jaw (normal). 27. Anatomical and functional features of the TMJ. 	<p>УК-9, ОПК-3, ОПК-8, ПК-8,</p>

28. Differences of facial muscles from other muscles of the body. 29. Functions of facial muscles. Testing of facial muscles (on a five-point scale). 30. Functional features of masticatory muscles. 31. Tasks of physical therapy in the treatment of diseases and injuries of the maxillofacial region. 32. A set of special exercises used in dental practice. 33. Features of physical therapy classes in diseases and injuries of the maxillofacial region. 34. The specifics of the use of mechanotherapy in dentistry. Definition of goals, objectives and indications. 35. Indications and contraindications to the appointment of massage. Types of massage. Massage lines on the face. 36. Goals and objectives of physiotherapy in dentistry, features of the use of physical factors in odontogenic diseases of the maxillofacial region. 37. Nutrition for maxillofacial injuries.	IIK-14
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5.1.2. Bank of test tasks

<https://sdo.pimunn.net/mod/quiz/view.php?id=175470>

6. Criteria for evaluating learning outcomes

For the credit

Learning outcomes	Evaluation criteria	
	Not passed	Passed
Completeness of knowledge	The level of knowledge is below the minimum requirements. There were bad mistakes.	The level of knowledge in the volume corresponding to the training program. Minor mistakes may be made
Availability of skills	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills are demonstrated. Typical tasks have been solved, all tasks have been completed. Minor mistakes may be made.
Availability of skills (possession of experience)	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills in solving standard tasks are demonstrated. Minor mistakes may be made.
Motivation (personal attitude)	Educational activity and motivation are poorly expressed, there is no willingness to solve the tasks qualitatively	Educational activity and motivation are manifested, readiness to perform assigned tasks is demonstrated.
Characteristics of competence formation*	The competence is not fully formed. The available knowledge and skills are not enough to solve practical (professional) tasks. Repeated training is required	The competence developed meets the requirements. The available knowledge, skills and motivation are generally sufficient to solve practical (professional) tasks.
The level of competence formation*	Low	Medium/High

For testing:

Mark "5" (Excellent) - points (100-90%)

Mark "4" (Good) - points (89-80%)

Mark "3" (Satisfactory) - points (79-70%)

Less than 70% – Unsatisfactory – Mark "2"

Developer(s):

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