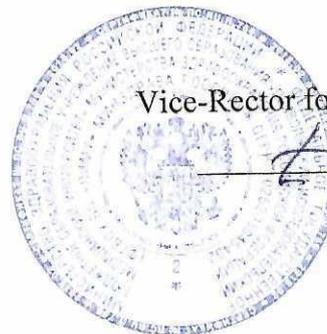


Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation



APPROVED

Vice-Rector for Academic Affairs

E.S. Bogomolova

31 August 2021

WORKING PROGRAM

Name of the academic discipline: **NEUROLOGY**

Specialty: **31.05.01 GENERAL MEDICINE**

Qualification: **GENERAL PRACTITIONER**

Department: **NERVOUS DISEASES**

Mode of study: **FULL-TIME**

Labor intensity of the academic discipline: **216 academic hours**

Nizhny Novgorod
2021

The working program has been developed in accordance with the Federal State Educational Standard for specialty 31.05.01 GENERAL MEDICINE approved by Order of the Ministry of Science and Higher Education of the Russian Federation No. 95 of February 09, 2016.

Developers of the working program:

Full name, academic degree, title, position.

Grigoryeva V.N., MD, Professor, Head of the Department of Nervous Diseases

Khrulev A.E., Candidate of Medical Sciences, Associate Professor of the Department of Nervous Diseases

Zorkova A.V., Assistant of the Department of Nervous Diseases

The program was reviewed and approved at the department meeting (protocol No. , 01 June 2021)

Head of the Department,
MD, Professor, _____



(signature)

V.N. Grigoryeva

01 June 2021

AGREED

Deputy Head of EMA ph.d. of biology _____ Lovtsova L.V.



01 June 2021

1. The purpose and objectives of mastering the academic discipline neurology (hereinafter – the discipline):

1.1. The purpose of mastering the discipline: (*participation in forming the relevant competencies*): UK4, GPC8, GPC9, PC1, PC5, PC6, PC8, PC9, PC 10, PC11, PC14, PC16

1.2. Requirements to the deliverables of mastering the discipline

As a result of completing the discipline, the student should

Know: Know the main clinical symptoms, syndromes of central and peripheral nervous system damage and their topical significance.

To know the clinical manifestations, the nature of the course, outcomes and complications of the main nosological forms of central and peripheral nervous system lesions,

To know the basic principles of those methods of laboratory and instrumental diagnostics that are necessary for verifying the diagnosis of the most common diseases of the nervous system

Know the basic diagnostic algorithms and principles of differential diagnosis of the most common forms of diseases of the nervous system.

Know the basic principles of etiological, pathogenetic and symptomatic treatment of major diseases of the central and peripheral nervous system.

Know the algorithms for providing emergency care to patients with diseases of the nervous system.

Know the prognosis for life, work capacity and social adaptation in the main nosological forms of lesions of the central and peripheral nervous system.

Know the main directions of rehabilitation and prevention of diseases of the nervous system.

Know the indications for referring a patient to a neurologist for consultation and for emergency hospitalization in a neurological hospital.

Be able to: Be able to implement ethical and deontological aspects of medical activity in communication with patients suffering from diseases of the nervous system.

Be able to collect a medical history and anamnesis of life in patients with signs of damage to the nervous system.

Be able to conduct a neurological examination and recognize clinical signs of damage to the central and peripheral nervous system based on its results.

Be able to establish a syndromic, as well as topical and preliminary clinical diagnosis based on the results of a neurological examination.

Be able to justify the choice and sequence of diagnostic procedures necessary to verify the diagnosis for the main nosological forms of damage to the nervous system, taking into account the significance and risks of these procedures in a particular patient.

Be able to explain the significance and importance of diagnostic and therapeutic procedures, their results and potential risks to a patient with a lesion of the nervous system and his relatives.

Be able to interpret the most significant changes in the results of laboratory and instrumental research methods for the diagnosis of diseases of the nervous system, namely: general and biochemical blood tests, X-ray of the skull and spine, fundus examination, computer and magnetic resonance tomography of the brain and spinal cord, electroneuromyography, electroencephalography, ultrasound examination of the vessels of the neck and head.

Be able to diagnose urgent conditions in neurology: acute pain syndrome, fainting, epileptic seizure, stroke, traumatic brain and spinal injury, meningitis, encephalitis, acute demyelinating polyradiculoneuropathy, myasthenic crisis,

Be able to provide first aid for urgent conditions associated with damage to the nervous system: acute pain syndrome, fainting, epileptic seizure, stroke, acute traumatic brain and spinal injury, acute inflammatory and infectious lesions of the central and peripheral nervous system, myasthenic crisis.

Be able to explain to the patient and his relatives the importance of lifestyle changes and

giving up bad habits (alcohol consumption, smoking) for the prevention of the most common diseases of the nervous system.

Possess: Methods of collecting complaints and anamnesis in a patient with suspected lesions of the nervous system.

The method of clinical and neurological examination of a patient who is in a clear consciousness.

The method of clinical and neurological examination of a patient in a coma.

Skills of screening-evaluation of the results of laboratory and instrumental research methods (general and biochemical blood tests, X-ray of the skull and spine, fundus examination, computer and magnetic resonance tomography of the brain and spinal cord, electroneuromyography, electroencephalography, ultrasound examination of the vessels of the neck and head) and identification of those diagnostically significant changes that require referral of the patient to a neurologist.

Skills of conducting a conversation with a patient aimed at explaining the importance of carrying out the necessary diagnostic and therapeutic procedures and carrying out preventive measures.

Methods of providing first aid for emergency conditions in neurology: acute pain syndrome, fainting, epileptic seizure, acute stroke, acute traumatic brain and spinal injury and injury to peripheral nerves, acute inflammatory and infectious lesions of the central and peripheral nervous system, myasthenic crisis.

Skills in analyzing scientific literature and official statistical reviews, preparing abstracts, reviews on current and modern scientific issues in the field of neurology and neurosurgery.

2. Position of the academic discipline in the structure of the General Educational Program of Higher Education (GEP HE) of the organization.

2.1. The discipline neurology refers to the core part (*or the part formed by the participants of educational relations*) of Block 1 of GEP HE (C.1.1.29).

The discipline is taught in 7 and 8 semester/ 4 year of study.

2.2. The following knowledge, skills and abilities formed by previous academic disciplines are required for mastering the discipline: Chemistry; biology; anatomy; histology, cytology, embryology; biochemistry; normal physiology; microbiology, virology; propaedeutics of internal diseases; pharmacology; pathological anatomy, clinical pathological anatomy; , pathological physiology; hygiene; topographic anatomy and operative surgery; radiation diagnostics; medical rehabilitation; dermatovenerology; otorhinolaryngology; ophthalmology, obstetrics; urology, faculty therapy, faculty surgery

2.3. Mastering the discipline is required for forming the following knowledge, skills and abilities for subsequent academic disciplines: psychiatry; gynecology; pediatrics; hospital therapy, endocrinology; infectious diseases; polyclinic therapy; hospital therapy; dentistry; traumatology, orthopedics; epidemiology; clinical pharmacology; forensic medicine; phthisiology; anesthesiology, intensive care, intensive care; oncology, radiation therapy; oncohematology; rheumatology; fundamentals of emergency care.

3. Deliverables of mastering the academic discipline and metrics of competence acquisition

Mastering the discipline aims at acquiring the following universal (UC) or/and general professional (GPC) or/and professional (PC) competencies

№	Competence code	The content of the competence (or its part)	Code and name of the competence acquisition metric	As a result of mastering the discipline, the students should:		
				know	be able to	possess
1.	UC-4	Able to apply modern communication technologies, including the use of a foreign language(s), for academic and professional interaction		the basics of oral and written communication in Russian and foreign languages, functional styles of the native language, requirements to business communication, modern means of information and communication technologies	express thoughts in Russian and a foreign language in business communication	writing texts in Russian and foreign languages related to the professional activity; experience in translating medical texts from a foreign language into Russian; experience in speaking Russian and foreign languages
2.	GPC-8	Able to implement and realize monitoring the effectiveness of the patient's medical rehabilitation including in the implementation of individual rehabilitation and habilitation programs for the disabled people, assess the patient's ability to carry out work activities		procedures for the organization of medical rehabilitation, including the implementation of individual rehabilitation and habilitation programs for disabled people; methods of medical rehabilitation of a patient including when implementing individual rehabilitation and habilitation programs for the disabled, medical indications and medical contraindications for their implementation taking into account the diagnosis in accordance with current procedures of the organization of medical rehabilitation, clinical recommendations taking into account the standards of medical care; ways to prevent or eliminate complications, side effects, adverse reactions, including serious and unforeseen, arising as a result of medical rehabilitation measures; procedure for examination of temporary disability	develop an action plan for the medical rehabilitation of patients including the implementation of individual rehabilitation and habilitation programs for the disabled people in accordance with the current procedure for the organization of medical rehabilitation, clinical recommendations taking into account the standards of medical care; determine medical indications for medical rehabilitation measures in accordance with the current procedure for the organization of medical rehabilitation, clinical recommendations taking into account the standards of medical care; evaluate the effectiveness and safety of medical rehabilitation measures for patients including when implementing individual rehabilitation and	drawing up a plan of measures for medical rehabilitation of a patient, including when implementing individual rehabilitation and habilitation programs for disabled people, in accordance with the current procedure for medical rehabilitation, clinical recommendations, taking into account medical care standards; carrying out medical rehabilitation measures for patients including when implementing individual rehabilitation and habilitation programs for disabled people, in accordance with the current procedure for the organization of medical rehabilitation, clinical recommendations, taking into account the

				and signs of temporary disability of a patient; signs of persistent impairment of body functions caused by diseases, consequences of injuries or defects	habilitation programs for disabled people in accordance with the current procedure for organizing medical rehabilitation, clinical recommendation taking into account the standards of medical care; identify signs of temporary disability and signs of persistent impairment of body functions caused by diseases, consequences of injuries or defects	standards of medical care; evaluation of the effectiveness and safety of measures for medical rehabilitation of patients, including the implementation of individual rehabilitation and habilitation programs for disabled people
3.	GPC-9	Able to implement the principles of quality management in the professional activity		the basic concepts of the quality management system of a medical organization; requirements for ensuring internal quality control and safety of medical activities	analyze the quality of medical care to dental patients; ensure internal quality control and safety of medical activities; organize work and monitor the performance of official duties of the medical personnel	carrying out work to ensure internal quality control of medical care for dental patients and the safety of medical activities
4.	PC-1	Able to assess the condition of a patient requiring medical treatment in the emergency form		etiology, pathogenesis and pathomorphology, clinical aspect, differential diagnosis, clinical features, complications and outcomes of diseases of internal organs; methodology for collecting complaints and anamnesis; physical examination technique (examination, palpation, percussion, auscultation); a list of laboratory and instrumental research methods for assessing the condition, the main medical indications for conducting research and interpreting the results of patients requiring medical care in the emergency form	identify clinical signs of conditions requiring medical treatment in the emergency form	
5.	PC-5	Able to collect complaints, anamnesis of the patient's life and illness, conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation), formulate a preliminary diagnosis and draw up a plan for laboratory and instrumental examinations of the patient		the legislation of the Russian Federation in the field of health care, regulations and other documents that determine the activities of medical organizations and healthcare workers; method of collecting complaints, anamnesis of life	collect complaints, anamnesis of life and disease of the patient and analyze the information received; conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation) and interpret its results; determine the sequence of	

				<p>and disease of the patient; a technique for a complete physical examination of the patient (examination, palpation, percussion, auscultation); etiology, pathogenesis and pathomorphology, clinical aspect, differential diagnosis, clinical features, complications and outcomes of diseases of internal organs; patterns of functioning of a healthy human body and mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes; methods of laboratory and instrumental examinations for assessing the state of health, medical indications for conducting investigations, rules for interpreting their results</p>	<p>volume, content and sequence of diagnostic measures incl. modern digital technologies</p>	
6.	PC-6	<p>Able to send a patient to laboratory, instrumental examination, to a consultation with specialist doctors if there are medical indications in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on providing medical care taking into account the standards of medical care, and also refer the patient for providing specialized medical care in an inpatient setting or in a day hospital if there are medical indications in accordance with the current procedures for the medical care delivery, clinical recommendations (treatment protocols) on</p>		<p>general issues of organizing medical care for the population, methods of laboratory and instrumental examinations to assess the state of health, medical indications for conducting examinations, rules for interpreting their results; procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>	<p>justify the need and scope of laboratory examination of the patient; justify the need and scope of instrumental examination of the patient; justify the need to refer the patient for consultations with specialist doctors; determine medical indications for the provision of emergency, including emergency specialized, medical care</p>	

		the medical care delivery taking into account the standards of medical care				
7.	PC-8	<p>Able to: develop a treatment plan for a disease or condition and prescribe medicine, medical devices, therapeutic nutrition and non-drug treatment taking into account the diagnosis, age and clinical picture in accordance with current procedures for the medical care delivery, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care and to evaluate the effectiveness and safety of the use of medicines, medical devices, therapeutic nutrition and other methods of treatment</p>		<p>modern methods of using medicines, medical devices and therapeutic nutrition in diseases and conditions of the patient in accordance with the current procedures for medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; the mechanism of action of medicines, medical devices and therapeutic nutrition, medical indications and contraindications to their use; complications caused by their use; modern methods of non-drug treatment of diseases and conditions of the patient in accordance with current medical care procedures, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; action mechanism of non-drug treatment; medical indications and contraindications to its prescription; side effects, complications caused by its use</p>	<p>draw up a treatment plan for the disease and the patient's condition taking into account the diagnosis, the patient's age, the clinical picture of the disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care; prescribe medications, medical devices and therapeutic nutrition taking into account the diagnosis, age and clinical picture of the disease in accordance with the current medical care procedures, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; prescribe non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with the current medical care procedures, clinical recommendations (treatment protocols) on issues related to the provision of medical care taking into account the standards of medical care; evaluate the effectiveness and safety of the use of medicines,</p>	

					medical devices and therapeutic nutrition	
8.	PC-9	Able to provide palliative care in cooperation with specialist doctors and other medical professionals		the procedure for providing palliative care	prescribe medicines, medical devices and therapeutic nutrition taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; prescribe non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; evaluate the effectiveness and safety of the use of medicines, medical devices and medical nutrition	
9.	PC-10	Able to: organize personalized treatment of the patient including pregnant women, elderly and senile patients, evaluate the effectiveness and safety of treatment		modern methods of using medicines, medical devices and therapeutic nutrition in diseases and conditions of the patient in accordance with the current procedures for medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; the mechanism of action of medicines, medical devices and	prescribe medicines, medical devices and medical nutrition taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of	

				therapeutic nutrition, medical indications and contraindications to their use; complications caused by their use; modern methods of non-drug treatment of diseases and conditions of the patient in accordance with current medical care procedures, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; mechanism of action of non-drug treatment; medical indications and contraindications to its prescription; side effects, complications caused by its use	medical care; prescribe non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care; evaluate the effectiveness and safety of the use of medicines, medical devices and medical nutrition	
10.	PC-11	Able to carry out an examination of temporary disability and work as a part of a medical commission carrying out an examination of temporary disability		the procedure for the examination of temporary disability and signs of temporary disability of the patient; the rules for registration and issue of medical documents when referring patients for specialized medical care, sanatorium treatment, medical and social examination	identify signs of temporary disability and signs of persistent impairment of body functions caused by diseases, the consequences of injuries or defects	
11.	PC - 14	Able to assess the effectiveness and safety of medical rehabilitation measures of the patient in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the providing medical care taking into account the standards of medical care		measures for the medical rehabilitation of the patient, medical indications and contraindications for their implementation taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care; medical indications and contraindications for sanatorium-spa treatment as a stage of medical rehabilitation of the patient; features of medical rehabilitation of elderly and senile patients	monitor the implementation and evaluate the effectiveness and safety of rehabilitation measures, including when implementing an individual rehabilitation program or habilitation of disabled people taking into account the diagnosis in accordance with the current procedures for medical care, clinical recommendations (treatment protocols) on the medical care delivery taking into account the standards of medical care	
12.	PC - 16	Able to: organize and monitor the immunoprophylaxis of infectious diseases in the adult		principles of application of specific and non-specific prevention of infectious diseases,	organize and carry out immunoprophylaxis of infectious diseases in the adult	

	population, prescribe preventive measures to patients taking into account risk factors in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care and monitor compliance with preventive measures		the national calendar of preventive vaccinations and the calendar of preventive vaccinations for epidemic indications; legislation of the Russian Federation in the field of health protection, sanitary rules and regulations; preventive measures taking into account the diagnosis in accordance with the current procedures for medical care, clinical recommendations (treatment protocols) about medical care delivery taking into account the standards of medical care	population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account standards of medical care; prescribe preventive measures to patients taking into account risk factors for the prevention and early detection of diseases, including socially significant diseases	
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4. Sections of the academic discipline and competencies that are formed when mastering them

№	Competence code	Section name of the discipline	The content of the section in teaching units
1	GPC-9 PC – 5 PC - 6	Motor system. Motor paralysis	Central and peripheral motor neurons. Cortico-spinal tract: its functional significance for the organization of voluntary movements. Syndromes of central and peripheral motor neuron damage. Pathophysiological foundations of the formation of pathological reflexes, muscle spasticity, plasticity. Reflex arc - structure and functioning. Levels of reflex closure in the spinal cord and brainstem. The study of reflexes, surface and deep reflexes. Basic pathological reflexes, protective spinal reflexes. Regulation of muscle tone: spinal reflex arc. The study of muscle tone, the main types of tonic disorders: hypertension (spastic, plastic and mixed variants), hypotension.
2	GPC-9 PC – 5 PC - 6	Extrapyramidal system. Parkinsonian syndrome. Dyskinesias. Cerebellar anatomy. Cerebellar disorders symptoms	The structure and connections of the extrapyramidal system with the higher and lower parts of the central nervous system (afferent and efferent connections). The role in the organization of movements, ensuring muscle tone, stereotypical automated movements. Neurophysiological and neurochemical mechanisms of regulation of the extrapyramidal system, the main neurotransmitters (dopamine, acetylcholine, norepinephrine, gamma-aminobutyric acid). Variants of motor disorders in the defeat of various departments of the extrapyramidal system: hypokinesia, oligo-, bradykinesia, hyperkinesia (tremor, chorea, tics, athetosis, hemiballism, torsion spasm, spastic torticollis, myoclonia). Changes in muscle tone when various parts of the extrapyramidal system are affected. Violation of higher mental functions in the defeat of the extrapyramidal system. Dystonic - hyperkinetic and hypertensive-hypokinetic syndromes. Pathophysiology of extrapyramidal disorders. Cerebellum and vestibular system: anatomy, physiology, afferent and efferent connections, role in the organization of movements. Symptoms and syndromes of cerebellar lesion (ataxia, dissinergia, dysarthria, muscle hypotension). Ataxia: cerebellar, vestibular,

			frontal, sensitive.
3	GPC-9 PC – 5 PC - 6	Sensory system	Afferent systems of somatic sensitivity, their anatomical and functional features. Receptors and pathways. Exteroceptive, proprioceptive, interoceptive sensitivity, complex types of sensitivity. Surface and deep sensitivity. Principles of classification of sensitive disorders according to the functional state of the analyzer (hypo- and hyperesthesia, paresthesia and pain, dysesthesia, hyperpathy, allodynia, causalgia), and according to the level of afferent systems damage (peripheral, segmental, conductive, cortical). Dissociated types of sensory disorders.
4	GPC-9 PC – 5 PC - 6	Cranial nerves	The structure of the brain stem (medulla oblongata, bridge of the brain, midbrain): the main motor, sensory and vegetative nuclei, ascending and descending pathways, reticular formation. Cranial nerves are motor, sensitive, mixed. Anatomical and physiological features. Cortical-nuclear pathways. Clinical research methods, lesion syndromes. Brain stem damage syndromes at different levels. Cross syndromes.
5	GPC-9 PC – 5 PC - 6	Autonomic nervous system	The structure and functions of the autonomic nervous system. Suprasegmental and segmental formations. Sympathetic and parasympathetic innervation. Limbic-reticular complex, hypothalamus, pituitary gland. Departments of the autonomic nervous system in the brain stem and in the spinal cord. Peripheral parts of the autonomic nervous system. Symptoms and syndromes of vegetative lesions. Physiology of bladder function control, disorders of bladder control function.
6	GPC-9 PC – 5 PC - 6	Higher mental functions. Gnosis, praxis, speech, consciousness	Cytoarchitectonics of the cerebral hemispheres. Localization of functions in the brain. Functional asymmetry of the cerebral hemispheres. The organization of mental functions, the role of the right and left hemispheres. Syndromes of lesions of individual lobes of the cerebral hemispheres. Higher mental functions: gnosis, praxis, speech, reading, writing, counting, body schema, memory, attention, intelligence and their disorders - aphasia (motor, sensory, amnesic, semantic), agraphy, alexia, acalculia, apraxia, agnosia (visual, auditory, olfactory, gustatory, tactile), violation of the body schema
7	GPC-9 PC – 5 PC - 6	Topical diagnosis of brain and spinal cord injury	Symptoms and syndromes that occur when the lobes, cortical fields of the brain are affected. Symptoms and syndromes of lesions of various levels and structures of the spinal cord.
8	GPC-9 PC – 5 PC - 6	Ophthalmoscopy in neurology. Cerebrospinal fluid analysis. Instrumental methods in the diagnostic of neurological disorders.	<p>Methods of visualization of the substance of the brain and spinal cord and the surrounding bone structures: CT, MRI, radiography.</p> <p>Methods of studying blood flow through the main arteries of the head: ultrasound, duplex scanning, angiographic methods (contrast angiography, CT angiography, MR angiography).</p> <p>Methods of studying the bioelectric activity of the brain: electroencephalography.</p> <p>Methods of studying the function of the spinal cord and peripheral nervous system: electroneuromyography.</p> <p>Cerebrospinal fluid analysis: normal composition of the cerebrospinal fluid, pathological changes of the cerebrospinal fluid in such diseases: subarachnoid hemorrhage, infectious lesions of the nervous system, tumors of the central nervous system.</p> <p>Fundus examination: a normal picture of the fundus, changes in the fundus with an increase in intracranial pressure.</p>
9	UC-4 GPC-8 GPC-9 PC – 1	Ischemic stroke. Hemorrhagic stroke and subarachnoid	Anatomy of blood supply to the brain and spinal cord. Collateral blood flow, the Willis circle and its importance in ensuring collateral blood supply. Autoregulation of cerebral blood flow and mechanisms that ensure normal metabolism of brain tissue.

	<p>PC – 5 PC – 6 PC – 8 PC – 10 PC – 11 PC – 14 PC - 16</p>	hemorrhage.	<p>Principles of classification of vascular diseases of the brain. Acute disorders of cerebral circulation:</p> <ul style="list-style-type: none"> transient disorders of cerebral circulation (transient ischemic attacks); ischemic stroke (atherothrombotic, cardioembolic, hemodynamic, hemorheological). Etiology, pathogenesis, pathophysiology, clinic, diagnosis, differential diagnosis, treatment. Indications for surgical treatment. hemorrhagic stroke (subarachnoid hemorrhage, parenchymal hemorrhages, ventricular hemorrhages). Etiology, pathogenesis, pathophysiological mechanisms, clinic, diagnosis, differential diagnosis, principles of therapy. Indications for surgical treatment. <p>Principles of early and late rehabilitation of stroke patients.</p>
10	<p>UC-4 GPC-8 GPC-9 PC – 1 PC – 5 PC – 6 PC – 8 PC – 10 PC – 11 PC – 14 PC - 16</p>	<p>Meningitis, encephalitis, brain abscess. Neurological complications of HIV/AIDS</p>	<p>Principles of classification of infectious diseases of the nervous system - by etiology, pathogenesis, severity of the process, features of the clinical course. Meningitis (primary and secondary bacterial, serous, tuberculous, syphilitic, etc.). Clinic, diagnosis, differential diagnosis, treatment. Encephalitis (tick-borne, borrelious, herpetic, influenza, enterovirus, encephalitis in measles, chickenpox, rubella, postvaccinal, etc.). Polio: etiology, pathogenesis, clinical forms, methods of diagnosis, treatment and prevention. Brain abscess. Spinal epidural abscess. Shingles (herpes): etiology, pathogenesis, clinical manifestations, principles of diagnosis, therapy and prevention. Neuro AIDS - modern ideas about the etiology, pathogenesis, clinical manifestations. Methods of diagnosis, treatment and prevention.</p>
	<p>UC-4 GPC-8 GPC-9 PC – 1 PC – 5 PC – 6 PC – 8 PC – 10 PC – 11 PC – 14 PC - 16</p>	Multiple sclerosis.	<p>Modern ideas about the etiology and pathogenesis of demyelination processes. Clinical forms of the main demyelinating diseases. Multiple sclerosis. Features of the clinical course, principles of diagnosis, differential diagnosis and therapy (hormones, cytostatics, drugs that change the course of MS).</p>
	<p>UC-4 GPC-8 GPC-9 PC – 1 PC – 5 PC – 6 PC – 8 PC – 10 PC – 11 PC – 14 PC - 16</p>	<p>Epilepsy. Migraine.</p>	<p>Classification of epilepsy. Pathophysiology of changes in the brain during an epileptic seizure. Clinical manifestations of epilepsy. Diagnosis, differential diagnosis, basic principles of therapy. Epilepsy in children. A series of epileptic seizures and epileptic status: definition, clinic, pathogenesis, emergency care, treatment.</p> <p>Classification of headaches. Migraine, tension headaches, bundle headache, combined forms of headache. Headache in neurological pathology, diseases of internal organs, endocrine disorders, intoxication, infections, traumatic brain injuries. Psychogenic headaches. Additional methods in determining the cause of headaches. Principles of therapy: medicines, physiotherapeutic effects, physical therapy, acupuncture, manual therapy, methods of psychocorrection.</p>
	<p>UC-4 GPC-8 GPC-9 PC – 1 PC – 5 PC – 6 PC – 8</p>	Tumors of the brain and spinal cord.	<p>Principles of classification of tumors of the brain and spinal cord, peripheral nerves. Classification of brain tumors. Cerebral, meningeal and focal symptoms in brain damage. Intracranial hypertension syndrome. Modern principles of diagnosis and differential diagnosis of brain and spinal cord tumors. Principles of conservative and surgical treatment.</p>

	PC – 10 PC – 11 PC – 14 PC - 16		
	UC-4 GPC-8 GPC-9 PC – 1 PC – 5 PC – 6 PC – 8 PC – 10 PC – 11 PC – 14 PC - 16	Brain and spinal cord injuries.	Classification of traumatic brain injury. Concussion, bruising, compression of the brain, intracranial hematomas, diffuse axonal injury. Pathophysiological mechanisms of damage to intracranial structures in brain injury of varying severity. Clinic, diagnostics, conservative and surgical treatment. Indications for cranial trepanation and removal of intracranial hematomas. Signs of brain edema and wedging. Consequences of traumatic brain injuries). Spinal cord injury: pathogenesis, clinic, diagnosis, emergency care, treatment.
	UC-4 GPC-8 GPC-9 PC – 1 PC – 5 PC – 6 PC – 8 PC – 10 PC – 11 PC – 14 PC - 16	Diseases of the peripheral nervous system.	The structure of the peripheral nervous system. The structure of the peripheral nerve. Etiology and pathogenesis of diseases of the peripheral nervous system. Classification. Mono- and polyneuropathies. The role of compression, traumatic, and infectious factors in the genesis of peripheral nerve trunk lesions. Polyneuropathies in somatic diseases - liver, kidneys, pancreas, diffuse connective tissue diseases, exogenous intoxication, infections. Acute inflammatory demyelinating polyneuropathy. Hereditary polyneuropathies. Clinic, diagnosis, treatment.
	UC-4 GPC-8 GPC-9 PC – 1 PC – 5 PC – 6 PC – 8 PC – 10 PC – 11 PC – 14 PC - 16	Back pain.	Vertebroneurological syndromes – ideas about pathophysiology and pathogenesis; clinical manifestations, diagnosis, differential diagnosis and principles of therapy.
	UC-4 GPC-8 GPC-9 PC – 1 PC – 5 PC – 6 PC – 8 PC – 10 PC – 11 PC – 14 PC - 16	Hereditary neuromuscular diseases. Myasthenia gravis.	Neuromuscular diseases I. Progressive muscular dystrophy: floor-bound (Duchene, Becker), limb-girdle, facial-shoulder-shoulder. II. Spinal amyotrophy: congenital, early and late forms. III. Neural amyotrophy: demyelinating, axonal, mixed. IV. Myotonia: pseudohypertrophic and dystrophic forms. V. Paroxysmal myoplegia: hypo- and hyperkalemic forms. Diseases with damage to the extrapyramidal system I. Parkinson's disease II. Huntington 's Chorea III. Hepatocerebral degeneration IV. Torsion dystonia, spastic torticollis
	UC-4 GPC-8 GPC-9 PC – 1 PC – 5 PC – 6 PC – 8	Disorders of consciousness. Fainting. Comas	Anatomical and physiological foundations of the regulation of consciousness. Reticular formation of the trunk, reticulocortical and cortical-reticular connections, ascending activating and descending inhibitory effects on brain structures. Depression of consciousness: stunned, sopor, coma. Confusion of consciousness, psychomotor agitation. Vegetative state, brain death. Clinical diagnosis of symptoms of

PC – 10 PC – 11 PC – 14 PC - 16	focal brain damage in comatose patients. Electrophysiological, angiographic and ultrasound methods of diagnosing brain death - EEG, evoked brain potentials, angiography, ultrasound.
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5. Volume of the academic discipline and types of academic work

Type of educational work	Labor intensity		Labor intensity (AH) in semesters	
	volume in credit units (CU)	volume in academic hours (AH)	7	8
Classroom work, including				
Lectures (L)	0,7		10	10
Laboratory practicum (LP)*				
Practicals (P)				
Seminars (S)	2,3		34	56
Student's individual work (SIW)				
Mid-term assessment	2		28	42
credit/exam (<i>specify the type</i>)	1	36		36
TOTAL LABOR INTENSITY	6	216	72	144

6. Content of the academic discipline

6.1. Sections of the discipline and types of academic work

№	Name of the section of the academic discipline	Types of academic work* (in AH)					
		L	LP	P	S	SIW	total
1	Systematic organization of movements. Sluggish and spastic paralysis.	2		5			7
2	Extrapyramidal system. The cerebellum.	2		5			7
3	Sensitivity. Conducting paths. Types of sensitivity. Types of sensory disorders.	2		4			6
4	Cranial nerves.			11			11
5	The autonomic nervous system.			2			2
6	Higher mental functions. Gnosis, praxis, speech, consciousness.	1		3			4
7	Topical diagnosis of brain and spinal cord lesions.	3		3			6
8	Instrumental diagnostic methods in neurology. Ophthalmoscopy in neurology. Examination of cerebrospinal fluid.			1			1
9	Acute disorders of cerebral circulation. Ischemic stroke. Etiology, pathogenetic variants. Clinic. Diagnostics. Emergency care. Management tactics.	4		10			14

	Hemorrhagic stroke and subarachnoid hemorrhage. Etiology, pathogenesis. Clinic. Diagnostics. Emergency care. Management tactics. Rehabilitation of patients.					
10	Infectious diseases of the nervous system. Meningitis. Encephalitis. Brain abscess. Damage to the nervous system in HIV infection.	2		5		7
11	Multiple sclerosis.			5		5
12	Epilepsy. Migraine.			5		5
13	Tumors of the brain and spinal cord.	2		5		7
14	Brain and spinal cord injuries.			5		5
15	Diseases of the peripheral nervous system.			5		5
16	Back pain.	2		5		7
17	Hereditary neuromuscular diseases. Myasthenia gravis.			5		5
18	Disorders of consciousness. Fainting. Comas			2		2
	TOTAL	20		86		106

* - L – lectures; LP – laboratory practicum; P – practicals; S – seminars; SIW – student's individual work.

6.2. Thematic schedule of educational work types:

6.2.1 Thematic schedule of lectures

№	Name of lecture topics	Volume in AH	
		semester	semester
1	Motor system. Motor paralysis	2	
2	Extrapyramidal system. Parkinsonian syndrome. Dyskinesias. Cerebellar anatomy. Cerebellar disorders symptoms	2	
3	Sensory system	2	
4	Topical diagnosis of brain and spinal cord injury	2	
5	Topical diagnosis of spinal cord and peripheral nervous system injury	2	
6	ischemic stroke		2
7	Hemorrhagic stroke		2
8	Infectious diseases of the nervous system (meningitis, encephalitis)		2
9	Tumors of the brain and spinal cord		2
10	Back pain.		2
	TOTAL (total - AH)	10	10

6.2.2. The thematic plan of laboratory practicums (*if this type of classes is stipulated in the curriculum*)

№	Name of laboratory practicums	Volume in AH	
		semester	semester
	TOTAL (total - AH)		

6.2.3. Thematic plan of practicals

№	Name of the topics of practicals	Volume in AH	
		semester	semester
	TOTAL (total - AH)		

6.2.4. Thematic plan of seminars (*if this type of classes is stipulated in the curriculum*)

№	Name of seminar topics	Volume in AH	
		7 semester	8 semester
1	Motor system. Motor paralysis	5	
2	Extrapyramidal system. Parkinsonian syndrome. Dyskinesias. Cerebellar anatomy. Cerebellar disorders symptoms	4	
3	Sensory system. Cranial nerves I-II. Clinical disorders	5	
4	Cranial nerves III, IV, VI, V. Clinical disorders	5	
5	Cranial nerves VII, VIII-XII. Clinical disorders.	5	
6	Higher psychical functions. Aphasia. Apraxia. Agnosia. Autonomic nervous system	5	
7	Topical diagnosis of brain and spinal cord injury. Cerebrospinal fluid analysis. Instrumental methods in the diagnostic of neurological disorders.	5	
8	Ischemic stroke		6
9	Intracerebral hemorrhage. Subarachnoid hemorrhage		5
10	Meningitis, encephalitis, brain abscess		5

11	Multiple sclerosis. Neurological complications of HIV/AIDS		5
12	Epilepsy. Migraine		5
13	Tumors of the brain. Spinal tumors.		5
14	Spinal tumors. Back pain		5
15	Brain trauma. Spinal injury		5
16	Peripheral nervous system disorders		5
17	Myasthenia gravis. Hereditary neuro-muscular diseases		5
18	Back pain		5
	TOTAL (total - AH)	34	56

6.2.5. Types and topics of student's individual work (SIW)

№	Types and topics of SIW	Volume in AH	
		semester	semester
1	Working with regulatory documents;	-	5
2	Reading the text (textbook, primary source, additional literature);	15	14
3	Working with electronic resources on the distance education portal of PIMU	2	4
4	Preparation of messages for presentation at a seminar, conference; preparation of abstracts, reports;	4	6
5	Testing	1	1
6	Working with lecture notes (text processing);	2	4
7	Solving situational production (professional) tasks;	4	8
	TOTAL (total - AH)	28	42

7. Types of assessment formats for ongoing monitoring and mid-term assessment

№	Semester No.	Types of control		Name of section of academic discipline	Competence codes	Assessment formats		
						types	number of test questions	number of test task options
1.	7	Current monitoring	Control of mastering the topic	Motor system. Motor paralysis		questions	3	27
			Monitoring the student's individual work			tasks	2	6
			Tests			10	36	

2	7	Current monitoring	Control of mastering the topic	Extrapyramidal system. Parkinsonian syndrome. Dyskinesias. Cerebellar anatomy. Cerebellar disorders symptoms		questions	3	18
			Monitoring the student's individual work			tasks	2	6
3	7	Current monitoring	Control of mastering the topic	Sensory system. Cranial nerves I-II. Clinical disorders		questions	3	31
			Monitoring the student's individual work			tasks	2	7
4	7	Current monitoring	Control of mastering the topic	Cranial nerves III, IV, VI, V. Clinical disorders		questions	3	18
			Monitoring the student's individual work			tasks	2	8
5	7	Current monitoring	Control of mastering the topic	Cranial nerves VII, VIII-XII. Clinical disorders.		questions	3	24
			Monitoring the student's individual work			tasks	2	5
6	7	Current monitoring	Control of mastering the topic	Higher psychological functions. Aphasia. Apraxia. Agnosia. Autonomic nervous system		questions	3	13
			Monitoring the student's individual work			tasks	2	6
7	7	Current monitoring	Control of mastering the topic	Topical diagnosis of brain and		questions	5	20
						tasks	2	7

			Monitoring the student's individual work	spinal cord injury. Cerebrospinal fluid analysis. Instrumental methods in the diagnostic of neurological disorders.		Tests	10	20
8	8	Current monitoring	Control of mastering the topic	Ischemic stroke; Intracerebral hemorrhage. Subarachnoid hemorrhage		questions	10	20
			Monitoring the student's individual work			tasks	7	30
						Tests	4	10
9	8	Current monitoring	Control of mastering the topic	Meningitis, encephalitis, brain abscess. Neurological complications of HIV/AIDS		questions	5	16
			Monitoring the student's individual work			tasks	3	6
						Tests	10	14
10	8	Current monitoring	Control of mastering the topic	Multiple sclerosis. Epilepsy. Migraine.		questions	7	22
			Monitoring the student's individual work			tasks	3	2
						Tests	10	16
11	8	Current monitoring	Control of mastering the topic	Tumors of the brain. Spinal tumors.		questions	7	15
			Monitoring the student's individual work			tasks	3	10
						Tests	10	20
12	8	Current monitoring	Control of mastering the topic	Brain trauma. Spinal injury		questions	5	17
			Monitoring the student's individual work			tasks	3	12
						Tests	12	19

13	8	Current monitoring	Control of mastering the topic	Peripheral nervous system disorders. Back pain	questions	6	18
			Monitoring the student's individual work		tasks	3	14
		Tests	11	21			
14	8	Current monitoring	Control of mastering the topic	Myasthenia gravis. Hereditary neuro-muscular diseases	questions	5	16
			Monitoring the student's individual work		tasks	4	6
		Tests	5	10			
15		Mid-term assessment	Exam		questions	4	85
					tasks	1	36

8. Educational, methodological and informational support for mastering the academic discipline (printed, electronic publications, the Internet and other network resources)

8.1. Key literature references

№	Name according to bibliographic requirements	Number of copies	
		at the department	in the library
1	Baehr, Mathias. Topical diagnosis in neurology: anatomy, physiology, signs, symptoms / M. Baehr, M. Frotscher. – 6th ed. – Stuttgart : Thieme, 2019. – 319 p. : il. – ISBN 978-3-1324-0958-3.	1	25
2	Mattle, H. Fundamentals of neurology : an illustrated guide / H. Mattle, M. Mumenthaler. – 2nd ed. – Stuttgart : Thieme, 2017. – XV, 438 p. : il. – ISBN 9783131364524.	-	20
3	Neurology and neurosurgery illustrated / K. W. Lindsay, I. Bone, R. Callander, G. Fuller ; Callander, Robin ; Lindsay, Kenneth W. ; Bone, Ian ; Fuller, Geraint. – 5th ed. – Edinburgh ; London : Churchill Livingstone, 2010. – 600 p. : il. – ISBN 9780443069789.		20
4	Baehr, M. Duus' topical diagnosis in neurology / M. Baehr, M. Frotscher. – 5th ed. – Stuttgart : Thieme, 2012. – 333 p. : ил. мяг. – ISBN 978-3-13-612805-3.		8

8.2. Further reading

№	Name according to bibliographic requirements	Number of copies
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		at the department	in the library
1	Motor system disorders in neurological clinic : the textbook / V. N. Grigorieva, I. G. Stelnikova, T. A. Sorokina, A. A. Melnikov ; FSBEI HE PRMU MOH Russia. – N. Novgorod : Publishing House of Privolzhskiy Research Medical University, 2021. – 1 файл (4.72 Мб). – ISBN 978-5-7032-1407-7. –	Текст : электронный	
2	Mumenthaler, M. Neurology / M. Mumenthaler, H. Mattle ; Mumenthaler Mark ; Mattle Heinrich. – 4th revised and enlarged ed. – Stuttgart : Georg Thieme Verlag, 2004. – 992 с. : ил. мяг. – ISBN 3-13-523904-7.		22
3	Greenberg, M. S. Handbook of Neurosurgery / M. S. Greenberg ; Greenberg Mark S. – 5th ed. – [Б. и.], 2001. – 974p. – ISBN 0-86577-909-0		49
4	Haines, D. E. Neuroanatomy: an atlas of structures, sections, and systems / D. E. Haines ; Haines Duane E. – 7th ed. – Philadelphia : Lippincott Williams & Wilkins, 2008. – 341 с. : ил. мяг. – ISBN 978-0-7817-6328-8.		15

8.3. Electronic educational resources for teaching academic subjects

8.3.1. Internal Electronic Library System of the University (IELSU)

№	Name of the electronic resource	Brief description (content)	Access conditions	Number of users
1	Internal Electronic Library System (EBS) http://nbk.pimunn.net/MegaPro/Web	Works of the teaching staff of the University: textbooks, textbooks, collections of tasks, methodological manuals, laboratory work, monographs, collections of scientific papers, scientific articles, dissertations, abstracts of dissertations, patents	From any computer and mobile device using an individual login and password. Access mode: http://nbk.pimunn.net/MegaPro/Web	Not limited

8.3.2. Electronic educational resources acquired by the University

№	Name of the electronic resource	Brief description (content)	Access conditions	Number of users
1	EBS "Student Consultant" (Electronic database "Student consultant").	Educational literature, additional materials (audio, video, interactive materials,	From any computer and mobile device using an individual login and password. Access mode:	Not limited

	Database "Medicine. Healthcare (VO) and "Medicine. Healthcare (SPO)" http://www.studmedlib.ru	test tasks) for higher medical and pharmaceutical education	http://nbk.pimunn.net/MegaPro/Web	
2	Database "Doctor's consultant. Electronic Medical Library" https://www.rosmedlib.ru	National guidelines, clinical guidelines, textbooks, monographs, atlases, pharmaceutical reference books, audio and video materials, ICD-10 and ATX	From any computer and mobile device using an individual login and password. Access mode: http://nbk.pimunn.net/MegaPro/Web	Not limited
3	Electronic library system "Bukap" https://www.books-up.ru	Educational and scientific medical literature of Russian publishers, including translations of foreign publications. Publications of the participating universities are available within the framework of the "Big Medical Library" project	From any computer and mobile device using an individual login and password; access is automatic from university computers. Publications from the "My Books" section are available for reading. Access mode: http://nbk.pimunn.net/MegaPro/Web	Not limited
4	YURAYT Educational Platform https://urait.ru	Collection of publications on psychology, ethics, conflictology	From any computer and mobile device using an individual login and password. Access mode: http://nbk.pimunn.net/MegaPro/Web	Not limited
5	Electronic periodicals as part of the database "Scientific Electronic Library eLibrary" https://elibrary.ru	Electronic medical magazines	From university computers. Access mode: https://elibrary.ru	Not limited
6	Integrated Information and Library system (IBS) of the scientific and educational medical cluster of the Volga Federal District - "Srednevolzhsky" (contract on a free basis)	Electronic copies of scientific and educational publications from the collections of libraries participating in the scientific and educational medical cluster of the Volga Federal District "Srednevolzhsky"	Access by individual login and password from any computer and mobile device. Access mode: websites of libraries participating in the project	Not limited
7	Electronic legal reference system "Consultant Plus" (contract on a free basis) http://www.consultant.ru	Regulatory documents regulating the activities of medical and pharmaceutical institutions	From the computers of the scientific library. Access mode: http://www.consultant.ru/	Not limited
8	National Electronic Library (NEB) (contract on a free basis) http://нэб.рф	Electronic copies of publications (including scientific and educational) on a wide range of	Scientific and educational works that have not been reprinted in the last 10 years are in the public domain. Works restricted by copyright, –	Not limited

	knowledge	from the computers of the scientific library. Access mode: http://HЭБ.pdf	
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8.3.3 Open access resources

№	Name of the electronic resource	Brief description (content)	Access conditions
1.	Federal Electronic Medical Library (FEMB) http://HЭБ.pdf	Full-text electronic copies of printed publications and original electronic publications on medicine and biology	From any computer located on the Internet. Access mode: http://HЭБ.pdf
2.	Scientific Electronic Library eLIBRARY.RU https://elibrary.ru	Abstracts and full texts of scientific publications, electronic versions of Russian scientific journals	From any computer located on the Internet. Access mode: https://elibrary.ru
3.	Scientific electronic library of the Open CyberLeninka access http://cyberleninka.ru	Full texts of scientific articles with annotations published in scientific journals of Russia and neighboring countries	From any computer located on the Internet. Access mode: https://cyberleninka.ru
4.	Electronic collection of Springer publishing house https://rd.springer.com	Full-text scientific publications (journals, books, articles, scientific protocols, conference materials)	From university computers. Access mode: https://rd.springer.com
5.	Database of periodicals published by Wiley www.onlinelibrary.wiley.com	Periodicals published by Wiley	From university computers, from any computer with an individual login and password Access mode: www.onlinelibrary.wiley.com
6.	Electronic collection of periodicals "Freedom" on the Science Direct platform https://www.sciencedirect.com	Periodicals of the Elsevier publishing house	From the computers of the university, from any computer with an individual login and password. Access mode: https://www.sciencedirect.com
7.	Scopus Database www.scopus.com	International Abstract Database of Scientific Citation	From the computers of the university, from any computer with an individual login and password. Access mode: www.scopus.com
8.	Web of Science Core Collection Database https://www.webofscience.com	International Abstract Database of Scientific Citation	From the computers of the university, from any computer with an individual login and password. Access mode: https://www.webofscience.com
9.	Questel database Orbit https://www.orbit.com	The patent database of the company Questel	From university computers. Access mode: https://www.orbit.com
10.	PubMed https://www.ncbi.nlm.nih.gov/pubmed	The search engine of the US National Library of Medicine for the databases "Medline", "PreMedline"	From any computer and mobile device. Access mode: https://www.ncbi.nlm.nih.gov/pubmed
11.	Directory of Open Access Journals http://www.doaj.org	Directory of open access to the full-text collection	From any computer and mobile device.

		of periodicals	Access mode: http://www.doaj.org
12.	Directory of open access books (DOAB) http://www.doabooks.org	Directory of open access to the full-text collection of scientific books	From any computer and mobile device. Access mode: http://www.doabooks.org

9. Material and technical support for mastering an academic discipline

9.1. List of premises for classroom activities for the discipline

- 1) An auditorium for conducting lectures.
- 2) Offices for conducting clinical and practical classes.
- 3) Offices for working with patients receiving medical care.
- 4) lecture halls of hospital im. Semashko N.A.

9.2. List of equipment for classroom activities for the discipline

1. Multimedia complex (laptop, projector, screen)
2. Personal computer
3. Sets of tables
4. Sets of multimedia visual materials
5. Neurological hammers
6. Sets of MSCT and MRI images with various pathologies of the central and peripheral nervous system.

9.3. A set of licensed and freely distributed software, including domestic production

Item no.	Software	number of licenses	Type of software	Manufacturer	Number in the unified register of Russian software	Contract No. and date
1	Wtware	100	Thin Client Operating System	Kovalev Andrey Alexandrovich	1960	2471/05-18 from 28.05.2018
2	MyOffice is Standard. A corporate user license for educational organizations, with no expiration date, with the right to receive updates for 1 year.	220	Office Application	LLC "NEW CLOUD TECHNOLOGIES"	283	without limitation, with the right to receive updates for 1 year.
3	LibreOffice		Office Application	The Document Foundation	Freely distributed software	
4	Windows 10 Education	700	Operating systems	Microsoft	Azure Dev Tools for Teaching Subscription	
5	Yandex. Browser		Browser	«Yandex»	3722	
6	Subscription to MS Office Pro for 170 PCs for	170	Office Application	Microsoft		23618/HN100 30 LLC "Softline

FGBOU VO "PIMU" of the Ministry of Health of Russia					Trade" from 04.12.2020
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10. List of changes to the working program (to be filled out by the template)

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation
(FSBEI HE "PRMU" of the Ministry of Health of Russia)

Department of
Name of the department

CHANGE REGISTRATION SHEET

working program for the academic discipline
NAME OF THE ACADEMIC DISCIPLINE

Field of study / specialty / scientific specialty: _____ (code, name)

Training profile: _____
(name) - for master's degree programs

Mode of study: _____
full-time/mixed attendance mode/extramural

Position	Number and name of the program section	Contents of the changes made	Effective date of the changes	Contributor's signature
1				

Approved at the department meeting
Protocol No. ____ of _____ 20__

Head of the Department

department name, academic title

signature

print name