№ ЛД-21-ИН

Annotation of the work program of the discipline
"Neurology, Neurosurgery" for the Faculty of Medicine

the main professional educational program of higher education – specialty program in the specialty 31.05.01 General Medicine, approved on May 24, 2023

Form of education: Full-time
The period of development: 6 years
Department of Psychiatry with Neurology, Neurosurgery and Medical Rehabilitation

1. The purpose of the discipline:
1. To teach students the skill of neurological examination and identification of symptoms of damage to the nervous system, the ability to combine symptoms into syndromes and make a topical diagnosis.
2. To give students modern knowledge about the etiology, pathogenesis, clinic, diagnosis, treatment and prevention of major diseases of the nervous system.
3. To form a student's clinical neurological thinking, the ability to independently diagnose the most common neurological diseases, to treat urgent neurological diseases and prevent diseases of the nervous system.

2. Place of discipline in the structure of EP:
the academic discipline "Neurology, Neurosurgery" refers to the basic part of block 1 of the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine"

Requirements for the results of mastering the discipline:
the process of studying the discipline is aimed at the formation and development of the competence of the OPC-1, OPC-4,OPC-5, OPC-10, UC-1, UC-6
As a result of studying the discipline, the student should know:
-Indications and contraindications for additional clinical and paraclinical research methods:
- lumbar puncture for the study of cerebrospinal fluid;
-craniography and spondylonraphy;
-electroencephalography and evoked potentials research methods;
- X-ray computed tomography (CT) of the brain and spinal cord, magnetic resonance imaging (MRI) of the brain and spinal cord, single-photon emission computed tomography;
-Ultrasound Doppler, ultrasound duplex and triplex scanning of the carotid arteries, transcranial Doppler, angiography of cerebral vessels;
-echoencephaloscopy.
Be able to:
- Ask, collect complaints and anamnesis from a neurological patient.
- Conduct a study of the neurological status;
- Determine the level of consciousness.
- Research:
* Meningeal symptoms;
* Higher brain functions: speech, reading, writing, counting, gnosis, praxis, memory and intelligence;
* Functions of the cranial nerves;
* Motor sphere: determine the volume, strength and pace of voluntary movements; examine muscle tone and reflexes, identify muscle atrophy, symptoms of pakinsonism;
* Coordination: Romberg's test, coordination tests in the limbs (finger-nose, calcaneal-knee, dysdiadochokinesis);
* Explore gait, tandem walking;
* Sensitivity: pain, temperature, proprioceptive, to reveal paresthesia and causalgia;
* Symptom of tension of nerve trunks and roots, reflex muscle symptoms;
* Autonomic functions: identify violations of thermoregulation, sweating, vasomotor and trophic disorders, orthostatic hypotension, Raynaud's syndrome, dysfunctions of the pelvic organs;
* A patient in a coma to assess pupillary reactions, identify focal neurological tests.
- Assess and interpret the results of clinical and paraclinical research methods;
- Based on the study of the neurological status:
* identify neurological symptoms and syndromes;
* establish a topical diagnosis;
* to make a preliminary clinical diagnosis.
- On the basis of a clinical examination (taking into account the results of additional examination methods), make a presumptive final clinical diagnosis for major diseases of the nervous system, reflecting the etiology, topics, course, nature and degree of dysfunction.

- Conduct emergency diagnostics and prescribe treatment for urgent neurological diseases:
* Ischemic stroke;
* Brain hemorrhage;
* Subarachnoid hemorrhage;
* Acute cranial and spinal trauma;
* Status epilepticus;
* Myasthenic and cholinergic crisis;
* Meningitis;
* Encephalitis.
- Arrange care for neurological patients.
- To carry out the prevention of major neurological diseases.

The main diseases of the nervous system, in which the student must make a presumptive clinical diagnosis, prescribe examination and treatment.
1. Acute disorders of cerebral circulation (transient disorders of cerebral circulation, ischemic stroke, cerebral hemorrhage, subarachnoid hemorrhages).
2. Hypertensive syndrome in brain tumors.
3. Acute cranial and spinal injuries.
4. Meningitis, encephalitis.
5. Status epilepticus.
6. Myasthenic and cholenergic crises.
7. Migraine status.
8. Radiculopathy and reflex muscle syndromes.
9. Diphtheria, profiric, acute and demyelinating polyneuropathies.
10. Neuropathies of the facial nerve.
11. Neuralgia of the trigeminal nerve.
12. Herpes zoster.
13. Exacerbation of multiple sclerosis.

The total workload of the course is 4 credit units (144 hours).
Semester: VII
The main sections of the discipline:
1. Principles of the structure of the nervous system. Classification of diseases.
2. Voluntary movements and their disorders (paresis, paralysis).
3. Lesions of the extrapyramidal system. Coordination of movements and their disorders.
4. Sensitivity and its disorders. Symptoms and syndromes of the cranial nerves.
5. Higher cerebral functions and their disorders (speech, gnosis, praxis, memory).
6. Autonomic nervous system: peripheral and central sections. Vegetative dystonia. Pelvic disorders.
7. Anatomy and physiology of cerebral circulation. Classification of NMC, ONMK. Encephalopathy. Vascular dementia.
8. Infectious diseases of the nervous system. Encephalitis. NeuroAIDS. Neurosyphilis. Meningitis: serous and purulent.
9. Slow neuroinfections. Demyelinating diseases: multiple sclerosis.
10. Diseases of the peripheral nervous system. Polyneuropathy. Neuropathies. Neuralgia. Spondylogenic lesions of the nervous system, irritative-reflex. Myofascial.
11. Tumors of the spinal cord and brain. Classification. Clinic of lesions of individual lobes and sections of the brain and spinal cord. Brain and spinal cord injuries. Classification, clinic, treatment, rehabilitation.
12. Epilepsy and convulsive syndromes. Neuroses.
13. Neuromuscular diseases.
14. Diseases of the extrapyramidal system. Neurological disorders in old age. Parkinson's disease
15. Occupational diseases of the nervous system and intoxication. Impaired consciousness. Pathogenesis, clinical picture and differential diagnosis of coma, case management.

Author:
Torchinov I.A., Doctor of Medical Sciences, Professor of the Department of Psychiatry with Neurology, Neurosurgery and Medical Rehabilitation of the Federal State Budgetary Educational Institution of Higher Education NOSMA of the Ministry of Health of the Russian Federation.