

Topics for lectures in the discipline "Neurology, neurosurgery, medical genetics" for students of higher education programme in the specialty 31.05.01 «General Medicine» (specialist programme «General Medicine»), full-time mode of study, in the autumn term 2023/2024 academic year.

№	Topic for lecture	Duration, hours
1	Introduction to neurology. Anatomy of the nervous system. Unconditioned reflexes in normal and pathology.	2
2	Motor system, its pathology. Peripheral and central paresis and paralysis.	2
3	Sensory system, its pathology. Types of pain. Types of sensory disturbances. Symptoms of spinal cord lesions at different levels.	2
4	Extrapyramidal and cerebellar systems: anatomy, physiology, symptoms of lesion. Cranial nerves 9-12, anatomy, functions, symptoms of lesion. Bulbar and pseudobulbar syndromes.	2
5	Cranial nerves 1-7. Anatomy, physiology, symptoms of lesion. Alternating syndromes.	2
6	Thalamus, internal capsule. Cortex. Aphasia, agnosia, apraxia. Consciousness disturbances. Hypertension syndrome. Meningeal syndrome.	2
7	Introduction to medical genetics. The subject and objectives of medical genetics. Modern classification of hereditary-family diseases. Diagnostic methods of hereditary-family diseases: clinical genealogical, cytogenetic, biochemical, molecular genetic.	2
8	Chromosomal diseases: etiology, pathogenesis, classification, general clinical signs, indications for cytogenetic research. Monogenic diseases, common clinical signs. Types of inheritance of monogenic diseases. Penetrance and expressivity of genes.	2
9	Multifactorial diseases. Interaction of hereditary and environmental factors. Genetically determined hyperlipidaemia, carbohydratemetabolism disorders, hypertonic disease. Prevention. Prenatal diagnosis. Medical genetic service. Indications and conditions for medical genetic counseling. Principles of hereditary diseases treatment.	2
10	Acute and chronic pain. Anatomical and physiological, neurochemical, social, psychological aspects. Questions of therapy.	2
11	Peripheral nervous system diseases. Polyneuropathies. Guillain-Barré syndrome. Mononeuropathies	2
12	Vertebrogenic diseases: radiculopathies. Back pain. Tunnel neuropathies	2

13	Meningitis, encephalitis	2
14	Myelitis. Epiduritis. Poliomyelitis. Rheumatic chorea. Multiple sclerosis. Disseminated encephalomyelitis. Neurosyphilis. Nervous system disorders in AIDS.	2
15	Classification of cerebrovascular diseases. Ischemic stroke, transient ischemic attack. Hemorrhagic strokes.	2
16	Chronic cerebrovascular diseases. Spinal stroke. Tumours of the brain and spinal cord. Neurosurgical methods of diagnosis.	2
17	Injuries of nervous system. Epilepsy	2
18	Primary headaches. Classification, diagnostic criteria, treatment. Vegetative dystonia syndrome. Neuroses. Etiology, pathogenesis, clinic, treatment, prevention. Insomnia.	2
19	Hereditary neuromuscular diseases: myopathies. Myasthenia. Amyotrophic lateral sclerosis. Clinic, molecular genetic methods of diagnostics, modern methods of treatment.	2
20	Hereditary disorders of the extrapyramidal system and family ataxia. Clinic, molecular genetic methods of diagnostics, methods of treatment.	2
	Total	40

Approved at the meeting of the Department of neurology, neurosurgery, medical genetics
Protocol № 19 29.05.2023

Head of department



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