

## **Neurology**

### **Questions for the final control**

1. Neurology as a science, a branch of practical medicine and a subject of study.
2. The main stages of the development of the nervous system.
3. Anatomical and topographic divisions of the nervous system.
4. Basic principles of nervous system functioning.
5. Reflex apparatus of the spinal cord. Reflex, reflex arc. Tendon and periosteal reflexes, arcs of their closure. Examination of tendon, periosteal, skin reflexes (stilo-carpo-radial, biceps, triceps, knee, Achilles, abdominal).
6. Cortico-spinal and cortico-nuclear pathways. Central and peripheral paralysis. Examination of the volume of active and passive movements, muscle tone and strength.
7. Topical diagnosis of the pathology of voluntary movements at different levels of damage.
8. Examination of pathological reflexes (Babinsky, Oppenheim, Gordon, Schaefer, Rossolimo, Bekhterev, Zhukovsky and others) and synkinesis.
9. Extrapyramidal system, anatomical features, functions. Damage syndromes.
10. Cerebellum, damage syndromes. Types of ataxia. Examination of coordination of movements (toe-nose, knee-heel tests, diadochokinesis, tests for dysmetria).
11. Sensitivity. Types of sensitivity, types and types of sensitive disorders. Braun-Secard syndrome. Examination of sensitivity (surface, deep and complex types).
12. Anatomical and physiological data, research methodology, syndromes of lesions of I-XII pairs of cranial nerves.
13. Central and peripheral paresis of the facial nerve.
14. Bulbar and pseudobulbar syndromes.
15. Alternating paralysis. Syndromes of damage to the pedicles of the brain, bridge-cerebellar angle, varolius bridge.
16. Autonomic nervous system, functions, damage syndromes. Bernard-Horner syndrome.
17. Cortex of large hemispheres, cyto-architectonic fields, lesion syndromes. Examination of language, praxis, gnosis, writing, reading, arithmetic
18. Cerebrospinal fluid formation, normal composition of cerebrospinal fluid, its changes in meningitis, tumors, hemorrhagic stroke, tuberculosis.
19. Meningeal syndrome clinic.
20. Functional research methods in neurology (electrophysiological, ultrasound, neuroimaging).
21. Blood supply of the brain and spinal cord.
22. Transient disorders of cerebral circulation. Transient ischemic attack.
23. Hemorrhagic stroke.
24. Ischemic stroke. Principles of undifferentiated and differentiated treatment of strokes.
25. Spinal strokes.
26. Modern classification of paroxysmal conditions in the clinic of nervous diseases.
27. Pathogenetic essence of epilepsy, classification of epileptic attacks, principles of differentiated treatment.
28. Epileptic status, clinic, diagnosis, treatment.
29. Non-epileptic paroxysmal states - convulsive and non-convulsive.
30. Vegetative-vascular paroxysms.
31. Syncopal states.
32. Cephalgia, pathogenetic mechanisms of occurrence, clinic, diagnosis, treatment.
33. Migraine: pathogenesis, clinic, treatment.
34. Insomnia, hypersomnia.
35. Basic clinical syndromes and principles of treatment in case of exogenous intoxications.

36. Stages of damage to the nervous system in the case of acute and chronic radiation sickness.
37. Vibration disease.
38. Closed craniocerebral injury. Spinal injury. Emergency aid.
39. Syndromes of manifestation of brain and spinal cord tumors. Changes in cerebrospinal fluid.
40. Brain abscesses, clinical syndromes, differential diagnosis.
41. Meningitis. Study of meningeal symptoms (rigidity of the occipital muscles, symptoms of Kernig, Brudzinsky).
42. Arachnoidites.
43. Encephalitis.
44. Damage to the nervous system during flu, rheumatism, herpes virus infection.
45. Poliomyelitis.
46. Acute myelitis.
47. Amyotrophic lateral sclerosis. Principles of palliative therapy.
48. Neurosyphilis. Clinical forms.
49. Damage to the nervous system in the presence of HIV infection.
50. Tuberculosis of the nervous system.
51. Multiple sclerosis (etiopathogenesis, variants of the course, clinic, modern methods of treatment).
52. Parasitic diseases of the nervous system (cysticercosis, echinococcosis, toxoplasmosis).
53. Prion infections.
54. Reflex vertebrogenic syndromes. Root syndromes. Symptoms of tension of the femoral and sciatic nerves.
55. Neuralgia of the trigeminal nerve.
56. Neuropathy of the facial nerve.
57. Variants of shoulder plexopathies.
58. Neuropathies of the ulnar, radial, median, tibial, and fibular nerves.
59. Compression-ischemic (tunnel) syndromes.
60. Polyneuropathies (infectious, toxic, paraneoplastic), modern methods of treatment.
61. Children's cerebral palsy, clinical options, treatment.
62. Somatoneurological syndromes in diseases of the digestive tract, lungs, cardiovascular system, blood, endocrine diseases. Paraneoplastic syndrome.
63. Progressive muscular dystrophies - primary (myopathies) and secondary (amyotrophies).
64. Myotonia.
65. Myasthenia. Myasthenic syndromes. Paroxysmal myoplegia.
66. Hepatocerebral degeneration (Konovalov-Wilson disease).
67. Huntington's disease, clinical manifestations and treatment.
68. Parkinson's disease, clinical manifestations and treatment.
69. Muscular dystonias.
70. Spinocerebellar ataxias. Friedreich's hereditary ataxia.
71. Hereditary spastic paraplegia. Strümpel's disease.
72. Cranio-vertebral anomalies.
73. Syringomyelia (etiopathogenesis, clinic, diagnosis, treatment).
74. Groups of drugs used in neurology.
75. Peculiarities of management of incurable patients and the use of palliative methods in neurological practice. The procedure for providing palliative care. Order of the Ministry of Health No. 41.
76. Interpretation of the main indicators of auxiliary methods of examination in a neurological clinic (electrophysiological, ultrasound, x-ray, computed tomography).
77. Determination of the leading neurological syndrome in a specific patient.
78. Justification of a topical diagnosis in a patient being examined.
79. Carrying out differential diagnostics.

80. Determination of the treatment scheme and additional examinations that are prescribed for the existing patient.

### Recommended literature

#### Basic:

- Neurology: textbook / I.A. Hryhorova, L.I. Sokolova, R.D. Herasymchuk et al.; edited by I.A. Hryhorova, L.I. Sokolova. – Kyiv : AUS Medicine Publishing, 2017. – 624 p.
- Netter Atlas of Human Anatomy: Classic Regional Approach: Professional Edition with NetterReference Downloadable Image Bank (Netter Basic Science) 8th Edition By [Frank H. Netter MD](#) / Publisher : Elsevier; 8th edition (April 25, 2022). - 712 p. ISBN-10 : 0323793738 ISBN-13 : 978-0323793735
- Neuroanatomy through Clinical Cases 3rd Edition By [Hal Blumenfeld](#) / Publisher : Sinauer Associates is an imprint of Oxford University Press; 3rd edition (February 28, 2021).- 1056 p. ISBN-10 1605359629: ISBN-13 : 978-1605359625
- Pocket Neurology (Pocket Notebook Series) Third Edition By [M. Brandon Westover MD PhD](#) Publisher : LWW; Third edition (October 16, 2021). - 390 p. ISBN-10 : 1975169034 ISBN-13 : 978-1975169039

#### Additional:

- Topical Diagnosis in Neurology. Anatomy, Physiology, Signs, Symptoms / Mathias Baehr, Michael Frotscher (6 edition) – Thieme, 2019 - 332 p.
- Adams and Victor's Principles of Neurology / [Allan Ropper](#), [Martin Samuels](#), [Joshua Klein](#), [Sashank Prasad](#) (11th edition). - [McGraw-Hill](#), 2019. - 1664 p.
- Clinical Neuroanatomy Made Ridiculously Simple: Color Edition 6th Edition by [Stephen Goldberg M.D.](#) / Publisher: MedMaster; 6th edition (September 14, 2022).- 112 p. ISBN-10 : 1935660519 ISBN-13 : 978-1935660514
- Clinical Neurology and Neuroanatomy: A Localization-Based Approach, Second Edition 2nd Edition by [Aaron Berkowitz](#) / Publisher : McGraw Hill / Medical; 2nd edition (July 21, 2022).- 384 p. ISBN-10 : 1260453367 ISBN-13 : 978-1260453362
- Handbook of Neurosurgery 9th Edition by [Mark S. Greenberg](#) / Publisher : Thieme; 9th edition (October 23, 2019).- 1784 p. ISBN-10 : 1684201373 ISBN-13 : 978-1684201372

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