

Practical skills in neurology

1. History taking and general examination

- General and neurological history taking
- Assessment of consciousness (Glasgow scale)
- Assessment of cognitive functions (Mini-Mental State Examination, MoCA)
- Determination of the level of orientation in space and time
- Assessment of the state of the psyche (depression, anxiety, psychosis)

2. Assessment of the motor system

- Examination and palpation of muscles, determination of atrophy or hypertrophy
- Determination of muscle strength according to the Lovett scale
- Assessment of muscle tone (hypertonia, hypotonia, rigidity)
- Conducting tests for pathological reflexes (Babinsky, Hoffmann)
- Assessment of coordination (finger-nose test, Romberg test)
- Determination of the type of gait (ataxic, parkinsonian, spastic)
- Study of involuntary movements (tremor, chorea, athetosis)

3. Sensitivity assessment

- Examination of superficial sensitivity (pain, temperature, tactile)
- Examination of deep sensitivity (vibrational, proprioceptive)
- Determination of the level of segmental sensitivity disorders
- Conducting tests for hypesthesia, hyperesthesia, anesthesia

4. Assessment of cranial nerves

- Examination of pair I (olfactory nerve) — test for smell perception
- Examination of pair II (optic nerve) — checking visual acuity, visual fields, examination of the fundus
- Examination of pairs III, IV, VI — assessment of eyeball movements, pupillary reaction to light
- Examination of pair V (trigeminal nerve) — facial sensitivity, masticatory muscles
- Examination of pair VII (facial nerve) — facial expressions, taste of the anterior 2/3 of the tongue
- Examination of pair VIII (vestibular-cochlear nerve) — hearing, balance
- Examination of pairs IX and X — swallowing, pharyngeal reflex
- Examination of the XI pair (accessory nerve) — strength of the trapezius muscle, m. sternocleidomastoideus
- Examination of the XII pair (hypoglossal nerve) — tongue mobility

5. Evaluation of reflexes

- Testing of deep reflexes (biceps, triceps, knee, Achilles)
- Testing of superficial reflexes (abdominal, cremaster, plantar)
- Evaluation of pathological reflexes (Babinski, Rossolimo, Oppenheim)

6. Special tests and tests

- Barre test (assessment of muscle weakness)
- Minier test (assessment of hearing and balance)
- Jandras test (assessment of pyramidal insufficiency)
- Performing the Dix-Hallpike maneuver (diagnosis of positional vertigo)
- Performing the Unterberger test (detection of lateropulsion)

7. Emergency care in neurology

- Providing assistance in convulsive status
- Providing stroke care (NIHSS assessment, transportation)
- Lumbar puncture (technique, indications, complications)
- Using the FAST scale for primary stroke diagnosis

8. Instrumental research methods

- Interpretation of CT and MRI data of the brain and spinal cord
- Interpretation of EEG data (epilepsy, encephalopathy)
- Interpretation of EMG data (myasthenia, polyneuropathies)
- Evaluation of Doppler results of vessels of the head and neck
- Evaluation of electronystagmography (ENG) results in vertigo

9. Assessment of higher cortical functions

- Assessment of speech, writing, and arithmetic (aphasia, agraphia, acalculia)
- Study of praxis (apraxia) and gnostic functions (agnosia)
- Assessment of memory (short-term, long-term)
- Assessment of attention and executive functions

10. Autonomic nervous system

- Assessment of sympathetic and parasympathetic functions
- Orthostatic test (diagnosis of autonomic disorders)
- Determination of autonomic tone and reactivity

11. Genetic and metabolic diseases

- Medical genetic counseling
- Interpretation of genetic test results (hereditary neuropathies, myopathies)
- Assessment of metabolic disorders (hypoglycemia, hyperkalemia)