

SYLLABUS

INTERNATIONAL EUROPEAN
UNIVERSITY



SCHOOL OF
MEDICINE

NEUROLOGY

2023



SYLLABUS



Discipline



NEUROLOGY

Викладач (-і)



Assistant of the Department of Internal Medicine, Blindaruk S.G.

Profile of the teacher(s)



<https://medicine.ieu.edu.ua/kafedra-vnutrishnoyi-medytsyny-z-kursom-akusherstva-ta-hinikolohiyi>

Consultations

Face-to-face consultation



First Wednesday of the month from 16.00 to 17.00

Online consultation



Second Tuesday of the month from 16.00 to 17.00

Contact phone number



095-895-24-47

E-mail



blindaruksvitlana@ieu.edu.ua

Discipline page



<https://medicine.ieu.edu.ua/kafedra-vnutrishnoyi-medytsyny-z-kursom-akusherstva-ta-hinikolohiyi>

Form of final control

offset

differentiated offset

exam

☐☐☐



SYLLABUS



1 Brief summary of the discipline

The subject of the discipline is the regularity of the nervous system functioning and the peculiarities of clinical manifestations of diseases of the nervous system. Interdisciplinary links: The working curriculum for the discipline "Neurology" in its content is a document that defines the amount of knowledge that students of the first year of study should master in accordance with the requirements of the educational qualification characteristics of the future specialist, the algorithm for studying the discipline's educational material, taking into account interdisciplinary links.

Neurology as an academic discipline: a) is based on students' study of medical biology, biological and bioinorganic chemistry, histology, physiology and pathological physiology, human anatomy and pathological anatomy and integrates with these disciplines; b) is based on students' study of propedeutic disciplines of therapeutic profile, pharmacology, radiology and integrates with these disciplines c) is integrated with other clinical disciplines (internal medicine, neurosurgery, oncology, psychiatry, medical genetics, etc.); d) is differentiated - formation of separate areas of neurological science that have independent international organisations: - epileptology; cerebrovascular pathology; neuromuscular diseases; migraine and headache; parkinsonology; the study of multiple sclerosis and demyelinating diseases; degenerative and dystrophic brain diseases.

2 Aims and objectives of the discipline

2.1 The aim of teaching the discipline "Neurology" is to improve knowledge about the structure and functioning of various parts of the nervous system, mastering the methodology of studying the neurological status, studying etiopathogenetic features, clinical manifestations, differential diagnostic features and modern directions and algorithms for the treatment of various diseases of the nervous system.

2.2 The main objectives of the discipline "Neurology" are

- to improve knowledge of the anatomical and functional features and major syndromes of the pyramidal, extrapyramidal, cerebellar, sensory systems, cranial nerves, integrative brain systems and autonomic nervous system;
- master the methodology of neurological status examination;
- to get acquainted with the main research methods in neurology (EEG, cerebral vascular ultrasound, ENMG, evoked potentials, CT, MRI, etc.), their advantages and diagnostic capabilities;
- learn how to independently examine patients with neurological pathology with the preparation of medical history, establishing topical and clinical neurological diagnoses;
- to study the etiology, pathogenetic features, clinical manifestations, diagnostic and differential diagnostic signs, modern directions and algorithms for the treatment of various diseases of the nervous system.

3 Competences and learning outcomes

PLO-1	Have a thorough knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integrating knowledge. To be responsible for professional development, the ability to further professional and the ability to further professional learning with a high level of autonomy.
PLO-3	Specialised conceptual knowledge that includes scientific achievements in the field of healthcare and is the basis for research, critical thinking in the field of medicine and related interdisciplinary issues.
PLO-4	Select and identify the leading clinical symptoms and syndromes (according to list 1); using standard methods, using preliminary data from the patient's history, examination of the patient, knowledge of the person, his/her organs and systems, establish preliminary clinical diagnosis of the disease (according to list 2).



SYLLABUS



3 Competences and learning outcomes

PLO-5	Collect complaints, anamnesis of life and disease, assess the patient's psychomotor and physical development, the state of organs and body systems, and evaluate information on the basis of laboratory and instrumental studies regarding the diagnosis (according to list 4), taking into account the patient's age.
PLO-6	Establish the final clinical diagnosis by making an informed decision and analysing the obtained subjective and objective data of clinical, additional examination, conducting differential diagnosis, observing relevant ethical and legal standards, under the supervision of a supervising physician in a healthcare facility (according to list 2).
PLO-7	Prescribe and analyse additional (mandatory and optional) methods of examination (laboratory, functional and/or instrumental) (according to list 4), patients with diseases of organs and body systems for differential diagnosis of diseases (according to list 2).
PLO-8	Determine the main clinical syndrome or what causes the severity of the victim's/injured person's condition (according to list 3) by making an informed decision and assessing the person's condition in any circumstances (in a healthcare facility, outside), including in an emergency situation and hostilities, in the field, under conditions of in the field, in conditions of lack of information and limited time.
PLO-9	Determine the nature and principles of treatment of patients (conservative, surgical) with diseases (list 2), taking into account the patient's age, in a health care facility, outside it and at the stages of medical evacuation, including in the field, based on a preliminary clinical diagnosis, following the relevant ethical and legal standards, by making an informed decision according to existing algorithms and standard schemes, if necessary, expand the standard scheme, be able to justify personalised recommendations under the supervision of a medical supervisor under the supervision of a supervising physician in a medical institution.
PLO-10	Determine the necessary work, rest and nutrition regime based on the final clinical diagnosis, in compliance with relevant ethical and legal standards, by making an informed decision according to existing algorithms and standardised schemes.
PLO-14	Determine the tactics and provide emergency medical care in case of emergency conditions (list 3) in a time-limited environment in accordance with existing clinical protocols and treatment standards.
PLO-17	Perform medical manipulations (according to list 5) in a medical institution, at home or in the workplace based on a preliminary clinical diagnosis and/or indicators of the patient's condition by making an informed decision in compliance with the relevant ethical and legal standards.
PLO-18	Determine the state of functioning and limitations of a person's vital activity and the duration of disability with the preparation of relevant documents in a healthcare facility based on data on the disease and its course, peculiarities of a person's professional activity, etc. Maintain medical records for the patient and population based on regulatory documents.
PLO-21	Search for relevant information in professional literature and databases other sources, analyse, evaluate and apply this information.
PLO-22	Apply modern digital technologies, specialised software, statistical methods of data analysis to solve complex healthcare problems health care.
PLO-24	To organise the necessary level of individual safety (own and of the persons under his/her care) in the event of typical dangerous situations in the individual field of activity in the individual field of activity.
PLO-25	Clearly and unambiguously communicate your own knowledge, conclusions and arguments on health care and related issues to professionals and non-specialists.
PLO-27	Communicate fluently in the state language and in English, both orally and in writing, to discuss professional activities, research and projects.



SYLLABUS



4 Structure of the discipline

Topic	Lecture	Practice	Ind.	Individual
Section of discipline 1 "General neurology"				
Topic 1: The concept of reflex and reflex arc. Pathological reflexes, research methods.	-	2	4	
Topic 2. Voluntary movements and their disorders. Pyramidal system. Cortical-nuclear and cortical-spinal pathways. Symptoms of central and peripheral paresis, pathogenesis of symptoms.	2	2	4	
Topic 3. Symptom complexes of movement disorders in case of damage to different levels of the cortico-muscular pathway. Extrapyramidal system and syndromes of its damage. Cerebellum. Syndromes of cerebellar lesions. Types of ataxia.	2	3	3	
Topic 4. Sensitive system and symptoms of its damage. Types and types of disorders of sensitivity. Practical skills.	-	3	3	
Topic 5. Pathology of olfactory and visual analysers. Syndromes of damage to the oculomotor nerves.	-	3	3	
Topic 6: Trigeminal, facial, sural nerves and syndromes of their lesions syndromes of their lesions.	-	3	3	
Topic 7. Pathology of IX-XII pairs of cranial nerves. Bulbar and pseudobulbar syndromes. Anatomical and physiological data, pathology and methods of studying the autonomic nervous system.	-	3	3	
Topic 8. Anatomical and physiological data, methods of studying cortical functions. Syndromes of cortical damage and irritation. Disorders of higher brain functions. Drug diagnostics. Meningeal syndrome. Functional diagnostics of diseases of the nervous system	-	3	3	
Section of discipline 2 "Special neurology"				
Topic 9: Independent supervision with drawing up a medical history. Vascular diseases of the brain and spinal cord. Transient ischaemic attacks.	2	2	4	Drawing up tasks "Krok-2, preparation of reports for scientific conferences, participation in inter-university conferences



SYLLABUS



Topic 10: Occupational and domestic neurointoxication. Lesions of the nervous system under the influence of physical factors. Neurological aspects of traumatic brain injury. Spinal trauma	-	2	2	
Topic 11. Epilepsy and non-epileptic paroxysmal states	2	2	2	
Topic 12: Meningitis. Encephalitis. Arachnoiditis Polio. Acute myelitis. Neurosyphilis. Neurological manifestations of polymyositis-dermatomyositis. Amyotrophic lateral sclerosis. Demyelinating diseases.	-	2	2	
Topic 13. Lesions of the nervous system in the presence of HIV infection. Tuberculosis of the nervous system. Neuroberreliosis. Parasitic diseases of the of the nervous system, prion infections.	-	2	2	
Topic 14. Diseases of the peripheral of the peripheral nervous system.	2	2	2	
Topic 15: Perinatal lesions of the nervous system. Congenital defects of the spine and spinal cord. Syringomyelia. Hereditary degenerative diseases of the nervous system.	-	2	2	
Differential credit		2		
Total	10	38	42	

5 Individual tasks

Individual assignments are one of the forms of organising university education, which aims to deepen, generalise and consolidate the knowledge that students receive in the course of their studies, as well as to apply this knowledge in practice. Individual assignments are completed by students independently under the guidance of a teacher.

Individual tasks include: writing essays and creating multimedia presentations with reports at meetings of the department's scientific student circle, participation in the department's research

-research work of the department, participation in writing abstracts and articles at student scientific conferences.

6 Teaching methods

According to the sources of knowledge, teaching methods are used: verbal - narration, explanation, lecture, instruction; visual - demonstration, illustration; practical - practical work, problem solving. According to the nature of the logic of cognition, the following methods are used: analytical, synthetic, analytical-synthetic, inductive, deductive. According to the level of independent mental activity, the following methods are used: problematic, search, research.

1. Verbal methods: lecture, conversation;
2. Visual methods: illustration, demonstration, demonstration at the patient's bedside;
3. Practical methods: practical work and solving clinical situational tasks to develop skills; simulation training.
4. Independent work of students on comprehension and assimilation of new material
5. Use of control and educational computer programmes
6. Innovative teaching methods: Case-based learning (learning through the analysis of a clinical case, situation); brainstorming; educational discussion; educational debate; role play; team-based learning; think-



SYLLABUS



pair-share.

The types of classes according to the curriculum are: lectures, practical classes; independent work of students.

7 Control methods

Current control is carried out on the basis of control of theoretical knowledge, practical skills and abilities.

The forms of current control are: oral questioning (frontal, individual, combined), interview; practical testing of the formed professional skills (conducted on the basis of the results of solving clinical cases, working with medical documentation, performing practical skills, working at the patient's bedside); test control ("open" and "closed" test tasks).

Current control is mandatory. When assessing the mastery of each topic in all disciplines of the curriculum, the student is given grades on a 4-point (traditional) scale for current learning activities, taking into account the approved assessment criteria for the discipline. All types of work provided by the curriculum are taken into account. The student must receive a grade for each topic. The teacher conducts a survey of each student in the group at each lesson and gives a grade in the student's attendance and progress record on a traditional scale ("5", "4", "3", "2").

When assessing a student's current learning activities, 20% of the grade is based on the student's independent work, which takes into account the knowledge of the topic of the independent lesson and the work in the notebook.

The final (summative) control is carried out

- in the form of a written test, which includes test tasks, theoretical questions
- control of practical skills (solving clinical cases, defence of medical history, assessment of the correctness of practical skills - a practice-oriented exam.

According to the specifics of professional training, preference is given to test and practice-oriented control.

Differential test is a form of final control of student's mastering of theoretical and practical material in the discipline.

8 Scoring scheme and distribution of points

The maximum number of points for a discipline is 200 points. The ratio between the results of the assessment of current learning activities and the final control of knowledge is 60% and 40%.

The discipline ends with the final control in the form of a differential test.

Only those students who have no academic debt (all missed classes have been completed) and whose average grade for the current academic activity in the discipline is at least "3" are allowed to take the differential test. The maximum number of points that a student can gain for the current academic activity to be admitted to the differential test is 120 points and is determined as the sum of the arithmetic mean of all grades obtained in the semester.

The minimum number of points that a student must obtain for the current academic activity is 72 points.

Recalculation of the average grade for the current academic performance (on a 120-point scale) in Table 1.

Recalculation of the average grade for the current academic performance into a multi-point scale for disciplines that end with differential credit

Table 1.

4-point	120-point	4-point	120-point	4-point	120-point
5	120	4.29	103	3.58	86
4.96	119	4.25	102	3.54	85
4.92	118	4.21	101	3.50	84
4.87	117	4.17	100	3.46	83
4.83	116	4.12	99	3.42	82
4.79	115	4.08	98	3.37	81



SYLLABUS



4.75	114	4.04	97	3.33	80
4.71	113	4.00	96	3.29	79
4.67	112	3.96	95	3.25	78
4.62	111	3.92	94	3.21	77
4.58	110	3.87	93	3.17	76
4.54	109	3.83	92	3.12	75
4.50	108	3.79	91	3.08	74
4.46	107	3.75	90	3.04	73
4.42	106	3.71	89	3	72
4.37	105	3.67	88	less 3	Not enough
4.33	104	3.62	87		

The maximum number of points that a student can score in a differential test is 80 (the minimum number is at least 50).

The grade in the discipline is determined comprehensively as the sum of points for current learning activities and points for differential assessment.

Of the 120 points allocated for current learning activities, an additional 4 to 12 points are allocated to assess the individual independent work of higher education students, according to the work curriculum. Incentive points are added to the final grade in the discipline at the end of its study.

Points in the discipline for students who have successfully completed the programme are converted into the national scale and the ECTS system (Table 2).

Table 2.

Scale of assessment: national and ECTS			
Sum of points for all types of learning activities	ECTS assessment	Score on the national scale	
		for exam, differentiated test	for test
180-200	A	excellent	Passed
160-179	B	good	
150-159	C		
130-149	D	satisfactorily	
120-129	E		
50-119	FX	satisfactorily unsatisfactory with the possibility of retake	No passed with the possibility of retake
0-49	F	unsatisfactory with mandatory re-study of the discipline	No passed with mandatory re-study of the discipline

9

Methodological support

1. The working curriculum of the discipline;
2. Plans of lectures, practical classes and independent work of students;
3. Theses of lectures on the discipline;
4. Methodical instructions for practical classes for students;
5. Methodological materials that provide independent work of students;
6. Tests and control tasks for practical classes;
7. List of questions for the exam

10

List of questions to be submitted for differential credit

General neurology.

1. Receptor, sensitivity. Clinical classification of sensitivity.
2. Conductive pathway of superficial and deep types of sensitivity.
3. Types of sensory impairment, pain and its varieties.



SYLLABUS



4. Types of sensory impairment (classification).
5. Visual hump, symptoms of damage.
6. Brown-Sekar syndrome.
7. Types of sensory impairment (classification).
8. Characteristics of the peripheral type of sensory disorders.
9. Characteristics of the spinal type of sensory disorders.
10. Characteristics of the cerebral type of sensory disorders.
11. Meninges of the brain and spinal cord, meningeal syndrome. Clinic of meningeal syndrome.
12. Reflex apparatus of the spinal cord. Reflex, reflex arc. unconditional reflexes.
13. Tendon and periosteal reflexes, arcs of their closure
14. Pyramidal pathway (cortico-spinal tract).
15. Cortico-nuclear tract.
16. Cortico-spinal and cortico-nuclear pathways.
17. Central paralysis, conditions of occurrence, signs.
18. Central (spastic) paralysis.
19. Peripheral paralysis, conditions of occurrence, signs.
20. Symptoms of damage to the anterior horn, anterior root, peripheral nerve.
21. Peripheral (flaccid) paralysis. Pathogenesis of atonia, areflexia, atrophy.
22. Syndromes of transverse spinal cord lesions at the level of cervical thickening.
23. Syndromes of transverse spinal cord injury at the level of the thoracic spine.
24. Internal capsule, symptoms of damage.
25. Extrapyramidal system (structure, function).
26. Syndromes of palidar system lesions (Parkinsonism syndrome).
27. Parkinson's syndrome, biochemical mechanisms of development.
28. Syndromes of damage to the striatal system (types of hyperkinesis). Types of hyperkinesis.
29. Cerebellum, anatomical and physiological features, syndromes of damage.
30. Types of ataxia.
31. Types of pathological gait.
32. Symptoms of damage to the visual analyser (nerve, optic tract, cortex).
33. Signs of damage to the first branch of the trigeminal nerve.
34. Signs of damage to the second branch of the trigeminal nerve.
35. Signs of damage to the third branch of the trigeminal nerve.
36. Symptoms of damage to the oculomotor nerve.
37. Symptoms of damage to the abducens and block nerves.
38. Signs of peripheral and central paralysis of the facial muscles.
39. Signs of peripheral and central paralysis of the tongue muscles.
40. Bulbar palsy and pseudobulbar palsy.
41. Signs of bulbar palsy.
42. Alternating syndromes (definition, examples).
43. Weber's alternative syndrome.
44. Alternating paralysis. Syndromes of brain palsy.
45. Alternating paralysis. Syndromes of varicose veins.
46. Fauville alternative syndrome.
47. Claude-Bernard Horner syndrome.
48. Miyara-Gubler alternative syndrome.
49. Jackson's alternative syndrome.
50. Symptoms of autonomic nervous system damage (sympathicotonia, vagotonia).
51. Supra-segmental division of the autonomic nervous system, function, syndromes of damage.
52. Segmental division of the autonomic nervous system, function, syndromes of damage.
53. Claude-Bernard Horner syndrome.
54. Cerebral cortex, lesion syndromes.
55. Symptoms of damage to the cortex of the parietal lobe of the brain.
56. Symptoms of cortical damage to the frontal lobe of the brain.



SYLLABUS



57. Symptoms of cortical damage to the temporal lobe of the brain. 58. Symptoms of cortical damage to the occipital lobe of the brain.
59. Speech disorders (dysarthria, aphasia).
60. Types of aphasia.
61. Agnosia, aphasia.
62. Cerebrospinal fluid is normal.
63. CSF formation, CSF composition is normal.
64. Blood supply to the brain and spinal cord.

Special neurology.

1. Classification of vascular diseases of the nervous system.
2. Ischaemic stroke (etiology, pathogenesis, classification).
3. Ischaemic stroke (clinic, diagnosis, treatment).
4. Transient ischaemic attacks (clinic, treatment).
5. Haemorrhagic stroke (parenchymal and subarachnoid haemorrhage).
6. Haemorrhagic stroke (etiology, pathogenesis, clinic, treatment).
7. Subarachnoid haemorrhage (etiology, clinic, diagnosis).
8. Haemorrhagic parenchymal stroke (clinic, diagnosis, treatment).
9. Prevention of strokes.
10. Principles of undifferentiated and differentiated treatment of strokes.
11. Cephalgia-pathogenetic mechanisms of occurrence, clinic, diagnosis, treatment.
12. Migraine: pathogenesis, clinic, treatment.
13. Insomnia, hypersomnia.
14. Epilepsy (classification of epileptic seizures).
15. Epilepsy (definition, diagnosis, principles of treatment).
16. Phases of generalised tonic-clonic epilepsy.
17. Epileptic status, emergency care.
18. Meningitis, classification.
19. Meningitis (primary, secondary).
20. Encephalitis (primary, secondary).
21. Epidemic encephalitis, acute clinic.
22. Epidemic encephalitis, chronic clinic.
23. Herpetic encephalitis.
24. Acute infectious myelitis.
25. Poliomyelitis, etiology, clinic, diagnosis.
26. Tuberculosis of the nervous system.
27. Meningitis, classification. Meningococcal meningitis.
28. Lesions of the nervous system in AIDS (neuro-AIDS).
29. Multiple sclerosis (variants of the course, clinic, modern methods of treatment).
30. Acute disseminated encephalomyelitis.
31. Neurosyphilis, early and late forms.
32. Neuroborreliosis.
33. Amyotrophic lateral sclerosis.
34. Trigeminal neuralgia (etiology, clinic, treatment).
35. Neuropathy of the facial nerve (Bell's palsy) - clinic, treatment.
36. Diabetic polyneuropathy (etiology, clinic, treatment).
37. Alcoholic polyneuropathy (clinical diagnosis and treatment).
38. Diphtheria polyneuritis - etiology, clinic, complications.
39. Radial nerve neuropathy.
40. Vertebrogenic lumbosacral radiculoneuropathy.
41. Neurological manifestations of spinal osteochondrosis (pain syndromes).
42. Shoulder plexitis (upper - Duchenne - Erb).
43. Shoulder plexitis (lower - Degerin-Klumpke).
44. Neuropathy of the ulnar and median nerves.



SYLLABUS



45. Acute polyradiculoneuropathy of Guillain-Barré.
46. Neuropathy of peroneal and tibial nerves.
47. Root syndromes of cervical and lumbar localisation.
48. Epilepsy (classification of epileptic seizures).
48. Epilepsy (definition, diagnosis, principles of treatment).
50. Phases of generalised tonic-clonic epilepsy.
51. Epileptic status, emergency care.
52. Syringomyelia, syringobulbia (etiopathogenesis, diagnosis, clinic, prognosis).
53. Cerebral palsy, clinical variants, treatment.
54. Closed head injury - concussion.
55. Closed head injury - brain contusion.
56. Closed head injury - brain compression.
57. Progressive muscular dystrophies.
58. Myasthenia gravis. Myasthenic syndromes.
59. Charcot-Marie neural amyotrophy.
60. Familial spastic paralysis of Strümpel.
61. Spinocerebellar ataxia. Hereditary Friedreich's ataxia.
62. Pierre-Marie cerebellar ataxia.
63. Familial Friedreich's ataxia.
64. Modern biochemical aspects of Parkinson's disease and its treatment.
65. Hepatocerebral dystrophy (Kononov-Wilson disease).
66. Huntington's chorea.
67. Somatoneurological syndromes in cardiovascular diseases.
68. Somatoneurological syndromes in diseases of the liver, pancreas, kidneys.

3. Practical skills to be submitted for differential credit in neurology.

- Methods of examination of physiological reflexes, their closure arc.
- Methods of examination of voluntary movements (active, passive movements, muscle tone, muscle strength, Barre and Buddha tests).
- Methods of examination of pathological reflexes of oral automatism.
- Methods of examination of pathological foot reflexes.
- Checking muscle tone, its changes, characterising the syndromes for which these changes are characteristic.
- Methods of examination of cerebellar functions.
- Methods of examination of the function of the strio-palidar system (gait, active movements, muscle tone, speech, handwriting).
- Methods of examination of symptoms of spinal cord tension, name of symptoms.
- Disorders of speech, indicate the syndromes for which these changes are characteristic.
- Methods of examination of olfactory and gustatory analysers.
- Methods of examination of the visual analyser.
- Methods of examination of trigeminal nerve function.
- Method of examination of the function of the oculomotor nerves.
- Method of examination of the function of the facial nerve.
- Methods of examination of the function of the bulbar group of nerves (IX, X, XII pairs of cranial nerves).
- Describe the method of examination of meningeal symptoms.
- Assess the somatovegetative reflexes (Aschner-Danigny, clinostatic Daniels, orthostatic Prevel's reflex), cutaneous autonomic reflexes, and pilomotor sympathetic reflex.
- Assess the autonomic innervation of the eye.
- Describe the presented changes in the visual fields (name of the syndrome, topical lesion).
- Describe the fundus picture in various pathological conditions (neuritis, congestive discs of the ON, atrophy of the ON).
- Describe the technique of lumbar puncture.
- Indications and contraindications for lumbar puncture, possible complications.
- Describe the presented samples of CSF analyses, for which pathology they are characteristic.
- CSF changes in subarachnoid haemorrhage, multiple sclerosis, purulent and serous meningitis, neurotuberculosis, Guillain-Barré syndrome.
- EEG - diagnostic value of the method, indications for conducting it. Name and describe the changes in the EEG in epilepsy.
- Describe the changes in the presented electroencephalograms of patients with epilepsy (absence, focal seizures, generalised seizures, epistasis).
- Electroneuromyography (ENMG) - physical principles, interpretation and diagnostic value of the method, indications.
- Describe the presented electroneuromyograms (ALS, myotonia, myasthenia gravis, polyneuropathy).
- Computed tomography of the brain (CT) - physical principles, diagnostic value in neurology



SYLLABUS



-Evaluate the presented samples of CT scans of patients (cerebral infarction, haemorrhagic stroke, traumatic brain injury, subarachnoid haemorrhage).

MRI - physical principles, diagnostic value in neurology.

-Describe the changes on the presented MRI scans of the brain and spinal cord of patients with multiple sclerosis (modes, characteristics of foci).

-Evaluate the presented MRI samples of neurological patients (multiple sclerosis, acute cerebrovascular accident, acute disseminated encephalomyelitis, neurosarcoma)

Ultrasound of the great vessels of the head and neck - physical principles, diagnostic value in neurology, indications.

-Point out the main radiological signs of osteochondrosis on the presented spondylograms.

-Radiological methods of investigation in neurology (craniography, spondylography, angiography) - physical principles, diagnostic value, indications.

-Glasgow Coma Scale.

11

Recommended reading

1. Neurology: Textbook / I. A. Grigorova, L. I. Sokolova, R. D. Gerasymchuk et al. 3rd ed. revised and supplemented - K.: Medicine, 2020. 640 p.

2. Methods of examination of a neurological patient: textbook / L. Sokolova, T. Cherenko, T. Ilyash et al.

3. Methods of examination of a neurological patient: Study guide for medical schools. Recommended by the Supervisory Board of the Bogomolets National Medical University / Edited by L.I. Sokolova, T.I. Ilyash - K., 2015. - 144 p.

Auxiliary

1. Vynychuk S.M., Prokopiv M.M. Acute ischaemic stroke. - Kyiv: Naukova Dumka. - 2006. - 286 p.

2. Golubev V.L. Vegetative disorders / V.L. Golubev, A.M. Wayne, T.G. Voznesenskaya, Vorobieva O.V.. - MIA, 2010.- 640p.

3. 7. Adams and Victor's Principles of Neurology 10th Edition 10th Edition / Allan Ropper, Martin Samuels, Joshua Klein NY, McGraw-Hill Education - 2014 - 1654 p.

4. Aids to the Examination of the Peripheral Nervous System, 5e 5th Edition / Michael O'Brien, LA, Saunders Ltd. - 2010 - 72 p.

12

Tips for successful learning in the course

If you want to be successful in this discipline, you need to:

1. Be active, persistent, inquisitive, consistent
2. Systematically prepare for practical classes
3. Perform tasks for independent work and defend them in class.
4. To be present at the class in a medical gown
5. To solve tests and tasks independently, to work actively in class.
6. Participate in student scientific conferences and engage in research work in scientific circles of the department.

I wish you perseverance, dedication and motivation to learn.

See you in class!

Don't forget your medical gowns!